From the desk of Editorial Chairman

By blessing of LORD JAGANNATH & all your well wishes, ultimately my dream has become true. Orissa Journal of Otolaryngology & HNS (OJOL & HNS) has become Internationally & Nationally Indexed [Indexed by Index Copernicus International plc, Poland (http://indexcopernicus.com) & NISCAIR (ISSN 0974-5262)]. For this I am obliged to Prof. G. C. Sahoo and Dr. D. Dwarakanath Reddy.

The Vol. 2, No. 2, July-Dec. 08, issue could not be published as I was contesting for the post of President AOI, 2009 and election code of conduct was applicable to me from 30.10.08 to 22.01.09.

Again I am proceeding to U.S.A (for some family commitments & visiting different Otolaryngological centres) and Brazil (to deliver Guest Oration at IFOS, ENT World Congress) from 20.3.09 to 6.7.09, hence the publication of Vol. 3, Issue 1, Jan to June, 09 has been preponed to Feb., 09.

I request my State AOI colleagues to help me to make this Journal at par with National / International standard by arranging finances & standard articles.

I am very much obliged to Prof. R. N. Samal, Editor; Editorial Board Members; State Executives of AOI; Contributors of articles; Advertisers and International & National Advisory Board members for their help rendered for bringing out this Issue of the Journal.

I expect the same cooperation in subsequent Issues.

Abhoya Kumar Kar

STATEMENT OF OWNERSHIP & OTHER PARTICULARS OF ORISSA JOURNAL OF OTOLARYNGOLOGY AND HEAD & NECK SURGERY

1. Place of Publication : Berhampur (Gm.), Orissa.
3. Nationality of Publisher : Indian.
4. Publisher & Editorial Chairman, Name & Address : Prof. Abhoya Kumar Kar, Gandhi Nagar 3rd Line East, Berhampur (Gm.) - 760 001, India.
6. Printers Name and Address : Sri Durga Off-set, R.C. Church Road, Berhampur-1, Ganjam, Orissa.

I, Prof. Abhoya Kumar Kar hereby declare that, the particulars given above are true to the best of my knowledge & belief.

Date : 15.02.2009

Sign. of Publisher
EDITORIAL:
Sir Morell Mackenzie (1837-1892), The Famous Laryngologist Who Misdiagnosed The Emperor!!!
Abhoya Kumar Kar & G. C. Sahoo 1-3

MAIN ARTICLE:
Reconstruction of Facial Soft Tissue Defects
Ullas Raghavan 4-7
Aetiopathology of Cervical Lymphadenopathy
Abhoya Kumar Kar, Santosh Kumar Misra & Pradipt Ranjan Sahoo 8-11
Preventive Otorhinolaryngology (Series I)
Sheo Kumar Prasad 12-15
Ligation Vs Bipolar Diathermy Coagulation for Haemostasis in Tonsillectomy – A Comparative Study
M.S. Arun, T.S. Anand, Ekta Chabbra, T.B. Shashidhar & Saumitra 16-18
A Beginner’s Aid to Nasal Endoscopic Procedures
R.Raman, Maznan B. Dahalil & N. Prepageran 19
Esophageal Foreign Body – Twin Deliveries
G.C. Sahoo, Ruta Shanmugam, Balaji Swaminathan & S. Vidhyadharan 20-21

CASE REPORT:
Facial Nerve : A New Anomaly of Tympanic Segment
Avanindra Kumar & Manish K. Singh 22-23
Parapharyngeal Neurofibroma - A Case Report
Khageswar Rout, Subrat Kumar Behera, Smruti Swain & Swarupananda Mishra 24-25
Rhinolithiasis : A Common Entity Rarely Diagnosed

A Rare Case Of Tuberculous Neck Abscess
Vivek V. Harkare, Nitin V. Deosthale, Sonali P. Khadakkar & Gayatri B. Dhop 28-29
Olfactory Neuroblastoma : A Rare Nasal Tumour – A Short Case Report
Bhawana Pant, D.K. Isser & H.C.K. Joshi 30-31
Pilomatrixoma of Parotid Region
Avanindra Kumar, Chaitanya Bhardwaj & Manish Kumar Singh 32-33
Schwannoma of Sinonasal Region With Intracranial Extension and Blindness – A Case Report
K.C. Mallik, S.N. Panda, Souvagini Acharya Satyajit Mishra & Santosh Swain 34-36
Adenoid Cystic Carcinoma of The External Auditory Canal Mimicking Recalcitrant Furunculosis
Pyopneumothorax a Rare Presentation of Silent Bronchial Foreign Body : A case Report
B.P. Katakwar & Seema V. Patel 40-41
Acute Myeloid Leukaemia M5b(AML-M5b) Presenting as Sudden Onset Haemorrhagic Necrotising Tonsillitis and Dysphagia, A Rare Case.
K. K. Samantaray, D. Dora, K. L. Purohit, A. Adhya & P. Jena 42-43
Rhinoscleroma of Oropharynx.
R.N. Samal, Satyabrata Dash & Smruti Milan Tripathy 44-45
Extensive Rhinoscleroma involving Nasopharynx - A Case Report
Abhoya Kumar Kar & Pradipt Ranjan Sahoo 46-47
Lingual Thyroid – How We Do It.
G.C. Sahoo, V.U. Shanmugam, Ruta Shanmugam & S. Vidhyadharan 48-50
Morell Mackenzie was born at Leytonstone on Essex and his father was a general medical practitioner. McKenzie was educated at the London hospital and qualified in 1858, after which he also did his post graduate study at Paris, Vienna and Budapest. He also got higher qualifications on his return to London in 1860 and was appointed Medical Registrar to the London Hospital. He started private practice as a consulting physician in 1862 and in the spring of 1863 founded his, "Metropolitan Free Dispensary for Throat Diseases and Loss of Voice", which developed within few years into a full fledged throat hospital at Golden Square, the first hospital exclusively devoted to diseases of throat in the world and also for long time, it was considered the Mecca of postgraduates on instruction and education in Laryngology.

Mackenzie was a very enthusiastic and innovative laryngologist, who was awarded the Jacksonian Prize of the Royal college of Surgeons in 1863 for his three volume essay on "The pathology and treatment of Diseases of Larynx, the diagnostic indications to include the appearance as seen in the "living person", which was illustrated by some of the first water colour drawings of the human larynx as it appears in real life. He published his first book in 1866 on the "Use of the Laryngoscope", a well-edited illustrative volume with excellent review of the laryngoscope, description of the new instrument and the method of examination alongwith illustrative cases.

After the publication of his book titled "Growth in the Larynx" in 1870, he went on to publish his two volume text book "Diseases of the Throat and Nose", which remained for a long time, the ultimate basis of British Laryngological literature, which Sir St. Clair Thomson called it as "The Laryngologist's Bible". The first volume was published in1880 followed by the second in 1884, which were immediately translated in German and French and it was at once recognized universally throughout the world as a classic treaties, the standard textbook which covered the whole field of the specialty. It was Mackenzie from whom the term abductor and adductor muscles of the larynx had originated. However in spite of his early success, he was not even an assistant physician to the London Hospital till his first book was published in 1866.

Mackenzie not only founded the monthly "Journal of Laryngology", assisted by Norris in 1887, but also founded the British Rhino-Laryngological Association in 1888. Sir Felix Semon who postulated "Semon's Law", was the worthy successor to Morrel Mackenzie as the leading English Laryngologist of German birth, who came to London in 1875 as a young and unknown foreigner with an introduction to Mackenzie, who received him with utmost kindness and subsequently placed him on the staff of the Throat Hospital. Semon was eventually appointed as, in charge of Throat Department at St. Thomas Hospital in 1882, the first Larygologists to be appointed to a general hospital, who translated the great textbook of Mackenzie into German, which was considered to be the Bible of laryngologists. One of the most fundamental and valuable contribution for the posterity was that, he suitably altered the angulations of all the wide curve of the German instruments to reach more accurately, directly into the larynx through mouth.

Sir Morell Mackenzie, the pioneering British Laryngologist who published his epoch-making book, "Growth of Larynx", based on the analysis of 100 consecutive cases of his own in 1870, had also acquired almost unbelievable expertise and dexterity in removing growth from the larynx by forceps designed by him. Mackenzie was summoned to Berlin in 1887 by crowned prince Frederick, who was believed to be suffering from Cancer Larynx by his German medical attendants, but without adequate evidence. However, Mackenzie made a last minute consultation and refused to agree to operating, which already had been arranged, until unless the biopsy had been performed. After his eleventh hour dramatic refusal for surgery, the biopsy was taken and three successive microscopic examination of specimens were done by eminent pathologist Virchow, proved to be
negative. Even though Mackenzie was on sure ground, he relied too much implicitly on the negative histopathological report as the normal specimen samples were really ample. However he never denied the fact, the disease might be cancer, but he gave a verdict of "not proven", in view of the repeated negative report by a reputed pathologist. Meanwhile the Royal patient who later became the Emperor of Germany (Frederick III) did indeed have the evidence of cancer larynx after a few months for which palliative tracheostomy was done, but he died shortly after having reigned as emperor for ninety nine days only. Mackenzie was severely criticized and violently attacked both in Germany and England for being responsible for the death of the emperor. Particularly the German doctors and pro-Bismarck newspapers accused of malpractice and unethical faith in making his diagnosis. But Mackenzie retaliated the attack against him in spite of his good intentions in an ill-advised book "The Fatal Illness of Frederick the Noble", of which more than one lakh copies were sold within a fortnight. But his angry outburst against his colleagues in the book was received with unfavorable criticism, which was considered highly unprofessional and unethical, for which he was censured by Royal College of Surgeons and British Medical Association. Ultimately though Mackenzie had to resign from the Royal College of Physicians, but it should never be forgotten that, Morell Mackenzie was not only the leading light and pioneer of British Laryngology, but also the protagonist of the scientific study of the disease of throat among all the english speaking doctors of the world. The premature death of royal patient, the German emperor Frederick III had a profound influence on the future history of Europe, for if he had lived long like his father, who lived up to the ripe old age of ninety, he would have established a liberal instead of a reactionary Germany, which might have avoided the horrors and many millions of deaths including all other evil consequences of the World Wars. Though Mackenzie was ostracized and professionally isolated for his insistence on biopsy before a radical surgery on his royal patient, but he was scientifically correct on his decision at that particular point as his biographer wrote, "Time is proving the soundness of Mackenzie's many fundamental contributions to laryngology and its beginning to be recognized as the art and science of medicine, owes more to him than has been realized in the past".

The crown prince Frederick of Germany (Prussia) was a peace loving, gentle and liberal minded ruler, whose story of the fatal illness from laryngeal cancer was as much of political intrigue as failure of diagnosis due to over reliance on negative biopsies by the distinguished laryngologist Sir Morell Mackenzie. This not only resulted in the sad demise of the emperor, but also the irreversible loss of practice and reputation of Sir Mackenzie, despite the knighthood conferred on him by Queen Victoria at the request of the crown prince and the payment of a fee of 12 thousand pounds for the medical care rendered by Mackenzie.

As per the report in the Pullmall Gazette (1888), the German Kaiser Frederick was given a handsome pipe by his wife and the Berlin Relief Society during the Franco-Prussian war (1870-1871) also send him a carved wooden pipe for Christmas. Frederic was a pipe smoker for 30 years before he died of cancer larynx in 1888 at the age of 57 years. It was also reported by W.T.Stead, the then editor of Pullmall Gazette, that Mackenzie himself was a great cigar smoker,
who had a lenient view on smoking. When his editorial friend asked Mackenzie, whether the cancer of the crown prince was due to excessive smoking, he replied in negative. It seems Mackenzie not only regarded tobacco as a carcinogen, but also opined that, it was meant to be used and if used in the right way, it is often helpful rather than injurious, even too after the Berlin experience in 1890, contrary to the present knowledge regarding tobacco as a carcinogen. Sir Morell Mackenzie, who was suffering from asthma, died of influenza pneumonia at the early age of fifty four only and his premature death might have been accelerated by the burden of unfortunate controversies and criticisms, which affected his later years of life subsequent to the untimely death of his royal patient, the emperor of Germany.

References:


Address for Correspondence & Reprint request

Prof. Abhoya Kumar Kar
Gandhinagar 3rd Line East,
Berhampur (Gm.)-760001, India
Ph.: 0680-2225003/09937064983
abhoya.kar@gmail.com
Reconstruction of Facial Soft Tissue Defects

Ullas Raghavan
Consultant Rhinologist and Facial Plastic Surgeon, Doncaster Royal Infirmary, UK

Soft tissue defects of the face occur from skin tumour excision or following other trauma, such as a road traffic accident. Face being the most noticeable part of the body, these defects must be reconstructed with least possible sequlae. Following reconstruction, it is inevitable to have scar along the junction of the reconstruction. By replacing the defect with tissues similar to the surrounding tissues in texture, colour and thickness, as well as placing the scar along the relaxed skin tension lines (RSTL) or margins of the facial units, we can hide the scar to a great extent. The face is divided into aesthetic units by Gonzalez – Ulloa, viz: forehead, temple, cheek, nose, eye and chin. Each unit is further subdivided into subunits. Aesthetic subunits are segments of contour broken by a change in undulation, with scaffolding in between. Full thickness defects of the lips may damage the nerve supply to the sphincter muscle and it may not be possible to rectify this completely using local flaps. Sometimes it may be necessary to alter the anatomy to achieve the right result. Alar margin do not have a cartilage support and consists only of skin and fibrofatty tissue. However, when the alar margin is involved in the defect, it must be reinforced with a cartilaginous graft to avoid notching. Huge defects of the face involving adjacent facial units may require free flaps or pedicled flaps, brought in from other areas.

Biomechanics and physiology of Skin

Skin is anisotropic, nonlinear and has time dependent properties.

Anisoptropic – Skin’s mechanical property changes with direction of force. RSTL represents lines on the skin with minimal tension. The lines perpendicular to this are the lines of maximum extensibility.

Nonlinear – Progressively more and more force is required to stretch the skin. When a force is applied to the skin to stretch it, initially a small amount of force will produce a large stretch. At the next stage more force is required to produce a similar change and after this a large amount of force is required to make a small change. At this stage wound will start to break down or heal with a bad scar, hence instead of primary closure a graft or flap should be tried.

Time dependent properties – If an area of skin is kept stretched, the tension decreases with time and is called stretch relaxation. When a constant tension is applied to skin, then the length gradually increases and is called creep.

Facial defects can be closed by a variety of techniques.

Primary closure

This is one way to close a defect provided it is small (less than 0.5cm) and is in an area where mobilisation of the edges can be done without distorting the neighbouring structures. The edges are undermined for at least 4 times the width of the defect. This may not be possible in all subunits, as it may result in developing large flaps, eg: medial subunit of cheek. When more than one subunit is involved in the defect, it is advisable to reconstruct each subunit using different flaps. Reconstruction of facial defects must result in proper function and an aesthetically pleasing appearance. In areas like eyes and nose, a full thickness defect must be repaired with soft tissue lining on both sides.
Secondary intention

This technique is simple, does not require further surgery or hospitalisation and it avoids donor site scarring and pain. Wounds allowed to heal by secondary intention do not necessarily give a bad scar, particularly in favourable sites such as the concave surfaces of nose, ear, eye and temple (NEET areas). Variables, like position, depth & size of the defect and skin colouration & patient age, should be considered before deciding for secondary intention healing. The disadvantages are, inconvenience due to a prolonged healing time, pain, infection, hypertrophic granulation tissue and scarring, hypopigmentation and distortion of adjacent structures through cicatrisation.

Skin grafts:

These are free grafts and they heal in three stages.

Stage 1: plasma imbibition: This is the first 24-48 hours after placing the graft on the recipient site. The graft draws in plasma by capillary action. During this period, the graft is held in position by a fibrin deposit between the graft and the recipient bed. This process can be easily disturbed with the accumulation of clot or serum beneath the wound, separating the graft surface from the recipient bed.

Stage 2: It starts about 24 hours after placement of the graft. Vascular components from the recipient bed grows and meet with vessels randomly in the graft. At this point circulation is beginning within the graft.

Stage 3: Vascular buds grow into the graft developing a vascular network. True circulation begins within the graft and the healing continues. Direct contact between the graft and the recipient bed is essential during the first week.

Split thickness grafts can be harvested in various thicknesses, but is devoid of reticular dermis. They can contract more than full thickness skin graft and they never give good colour, texture and thickness match to the surrounding skin. Their role in facial reconstruction is confined to very large defects, where urgent cover is required, eg: burns.

Skin grafting is a simple procedure provided the techniques are right and postoperative period uneventful. They almost always heal. However, they can cause contracture, poor colour match, a tendency to contract around the edges and donor site morbidity resulting in unacceptable cosmetic result.

Local flaps

Local skin flaps have their own blood supply and when designed well, the healing rate is high with minimal postoperative contraction. The local skin flaps are of two types axial and random. The axial flaps have a named blood vessel supplying it, eg: paramedian flap supplied by supra trochlear artery. Random flaps do not have a named vessel and is dependent on minor arteries, arterioles and subdermal plexus for its vascularity, eg: rhomboid flap. Because of this there are limits to the length and size of random local flaps. Wide undermining is needed to reduce tension and increase the mobility of the skin and subcutaneous tissue.

Local flaps are subdivided into advancement flaps, rotation flaps and transposition flaps.

Advancement flaps:

These are the simplest of local flaps. The tissue is undermined and advanced in a straight line towards the defect. Unilateral advancement flap has limited use in the head and neck because of reduced flexibility. Bilateral advancement flaps can be created on either side to cover the defect. Length of each flap can be varied to bring their junction to a favourable position, eg: philtrum of upper lip. The length to width ratio of each flap is 4:1. Examples of advancement flaps are the rectangular flap for forehead and upper lip defects (may need Burrows triangles excising to avoid “dog ears”), the cheek advancement flap and the V-Y advancement flap.

Rotation flap:

Here the flap rotates around an arc to close the defect. The entire flap and the surrounding skin need to be

Fig 5: Advancement flap  Fig 5a: Defect of forehead

Fig 5b : Flaps developed  Fig 5c : Result after 6 months
undermined in all directions. The length of the flap must be 4-6 times the diameter of the defect. Failure to do this results in excessive tension during closure, buckling and possibly compromise vascularity, e.g.: cheek rotation flap, scalp rotation flap.

A-T flaps:
In this technique two rotation flaps are used together and is ideal for lesions in temple and forehead region close to hair line. A 'V' shaped excision of the lesion is done with the mouth of 'V' open towards the hair line. Then two flaps are raised on either side and rotated first to close the defect.

Dorsal nasal flap:
This is useful to cover a defect of the lower third of the nose with similar tissue, but is not the ideal choice. The flap is elevated off the periosteum and perichondrium over the dorsum and sidewall of the nose up to the glabella. Then it is slid down to cover the defect. The advantages are: The skin is brought from an area of excess, the glabella, to the lower third of nose and the defect is covered by tissue similar to the lost one. However there are disadvantages. The thick and pitted skin of the glabella covers the medial canthal region causing an epicanthal fold. The flap does not coincide with the subunit excision lines. It is difficult to correct the large dog-ear made by this flap.

Transposition flaps:

Fig. 7b: Flaps approximated

Fig. 7c: Result after 6 months

Fig. 7a: Defect after excision of tumour, upper and lower flap

Transposition flaps are also called interposition flaps. These flaps are raised and rotated from the donor site over adjacent tissue to cover the defect. These flaps allow movement in more than one plane and examples of this are the bilobed transposition flap, the nasolabial flap and the rhomboid transposition flap.

Bi-lobed flap:

This is a random double transposition flap ideal for defects 0.5 cm to 1.5 cm in diameter in the lower third of nose. It is useful for defects of the lateral side of nose, where local skin of the same thickness and colour can be used to fill the defect. To avoid anomalies in the contour, each lobe should not rotate more than 50°. The angle between the axis of the defect and the second flap should be less than 110° to avoid dog-ear. When the flap is designed, care should be taken to avoid placing the first flap over the dorsal subunit, as this may leave a depressed area on the dorsum, even after reconstructing this defect with the second flap. A piece of skin is excised between the defect and pivotal point of the flap before rotation. The pivotal point is located away from the margin of the defect at a distance equal to the radius of the defect. It is never placed close to the medial canthus or alar margin. The diameter of the first lobe is equal or slightly less than the defect and the width of the second lobe is half of the first.

Nasolabial flap:
This flap is suitable to correct the skin loss of the alar subunit, vestibule of nose and upper lip. The flap can be based inferiorly or superiorly and the pedicle divided at a second procedure. Alternatively an island flap can be rotated into position. The perforating branches of facial and angular arteries supply this flap and an island flap can be rotated 180° to allow primary closure. In order to obtain a groove around the alar margin, the nasolabial and cheek skin can be advanced a few millimetres more than might seem necessary and the rim left unsutured, so that when healing takes place, the reconstructed ala contracts a little and rolls up to form a more natural edge.

Rhomboid flap:
For defects of cheek and temporal fossa, this is an ideal flap. The defect is modified into a rhomboid shape. Eight flaps can be designed for each defect. The one that causes least distortion to neighbouring structures and with the scar mostly in RSTL is selected. The rhomboid flap will give a ‘L’ shaped scar and so is not possible to get the entire scar in RSTL.

Septal flaps:
Septal flaps are useful to recreate the inner lining of nose when reconstructing a full thickness defect. An anterior septal mucosal flap based on the septal branch of the superior labial artery or alternatively a posterior flap based on the septal branch of the sphenopalatine artery can provide an internal lining. A septal flap produces a well vascularised lining and whilst it tends to crust for several weeks, it will eventually provide a normal lining. If the defect is large and requires septal flap from both sides, it will result in a septal perforation. It is important to raise these flaps under the mucoperichondrium to give them strength.

**The Paramedian Forehead Flap:**

This is an improved modification of the midline forehead flap and is the best alternative in dealing with major nasal defects. If available, a Doppler is used to identify this vessel and this helps to develop a narrow pedicle. The paramedian forehead flap is not only robust, but the donor site often heals well, even when it is not possible to close its upper part and this is left to heal by secondary intention. One of the main problems of this flap is its thickness, particularly if it is used to reconstruct the alar margin. It is possible to thin this skin down up to 1.5cms from its distal rim, unless there are factors affecting its vascular bed. About 4 weeks later the pedicle is divided.

Vast majority of the defects of the face can be reconstructed with local flaps. The choice of the flaps depend on the site and size of the defect, neighbouring structures, general condition of the patient, etc. Placing the scars in the RSTL or in the margin of the subunits, make them less noticeable. As far as possible, replace each subunit separately. For full thickness defects of nose and eyelids, reconstruction must be in three layers, outer and inner soft tissue layer with middle scaffolding. If the defect involves the margin of the ala of nose, cartilage graft must be used to support the alar margin to avoid notching of the alar margin.

**References**

INTRODUCTION:
Neck swelling is a common presentation to ENT surgeons in day to day practice compared to physicians of other faculties. Cervical lymphadenopathy constitutes a major group among all neck swellings. More than two third of cervical lymphadenopathy have non-specific causes or upper respiratory tract illness. To find out the cause of lymphadenopathy is very important for the management point of view. So the physician should do clinical assessment meticulously regarding medical history, physical examination, lab investigation and at last excisional biopsy of lymphnode.

In developing countries tuberculosis and in developed countries metastatic nodes are the most frequent cause of cervical adenitis. Tubercular lymphadenitis continues to be a major health problem in India even today and is frequently associated with pulmonary tuberculosis.

In case of malignancies, nodes with unknown primaries pose a great challenge to the physicians. In majority of cases, primary is usually located somewhere in the nasopharynx, oral cavity & palate, in that order of frequencies (Martin and Romiew, 1970)¹. Other sites which must be searched for a primary are the sinuses, lungs, stomach, prostate and urinary bladder. By the use of endoscope, CT & MRI, it has become a lot more easier to detect the malignancy in early stages. But to get final diagnosis, histopathological study is required.

In paediatric age group, cervical lymphadenopathy is mostly due to pyogenic (Streptococcus, Staphylococcus) and granulomatous (atypical Mycobacterium, Cat - scratch disease) diseases.

Infectious mononucleosis, toxoplasmosis, brucellosis, CMV and tuberculosis are the predominant causes of cervical lymphadenopathy in adults.

In old ages, carcinoma of head & neck region are the most common causes.

OBSERVATION AND RESULTS:
Table – 1
Incidence

General incidence of cervical lymphadenopathy is 0.259% of total cases attending ENT OPD.
Table – 2
Age & Sex Incidence

The highest incidence was, 31 cases of males in 5th decade and 13 cases of females in 2nd decade.

Table – 3
Personal Habits

Chewing tobacco & pan and smoking were the chief habit, found in this study.

Table – 4
Diseases of Cervical Lymphadenopathy

Most common cause was found to be malignant diseases (33.33%), followed by tuberculosis (26.66%), in this study.

Hellwey et al (1962) found malignancy in 40.2% and Matzker (1967) in 35%, as the commonest cause in their study.

Table – 5
Sites of Lymph node Involvement

Upper deep cervical was the most commonly involved LN group (23.33%), followed by lower deep cervical (21.33%) nodes. Multiple nodal affection was found in 34.66%.

Table – 6
Primary Sites of Metastatic Malignancies with Histopathology (n=45)

This study shows carcinoma larynx was the most common site with aryepiglottic fold and arytenoids being the most common sub-site. The next common regions involved are pyriform sinus, tonsil, tongue & nasopharynx.

According to Lewis (1977), among the cancer of hypopharynx, pyriform fossa is the most common site.

Table – 7
Final diagnosis

(4.4%)
40 (89%)
2(4.4%)
Largest group belonged to different carcinomas of head & neck (45.33%), followed by tuberculosis (26.6%). Among all metastatic carcinomas, carcinoma-Larynx scored top, followed by carcinoma-pyriform sinus. In 5 cases, primary site could not be detected despite thorough search. Hellwing et al (1962) found 40.2% of metastatic carcinoma in their study.

Table - 8
Clinical evaluation of patients of different aetiology
DISCUSSION

Though TB is the most common cause of cervical lymphadenopathy in developing countries, this study shows malignancy as the most common cause. Decreased incidence of TB may be due to change in lifestyle, improved sanitation and health awareness. Increased incidence of carcinoma-larynx is associated with more tobacco use.

As compared to previous days, the standard of treatment for malignancy has changed. It is due to proper assessment of site of tumor and its regional & distant spread. It is mainly attributed by different diagnostic modalities like panendoscopy, CT & MRI. Still early diagnosis of precancerous lesion and early stages of cancer pose great difficulties. CT scan has the ability to detect the metastatic node upto 3mm in diameter (i.e. micrometastasis).

Now contact endoscopy is the emerging investigation modality which allows in vivo and in situ, observation of the mucosal blood vessels and superficial cells of the epithelium, which has been previously stained with methylene blue. In the coming future, contact endoscopy will add a milestone in the early diagnosis of keratosis, metaplastic & dysplastic changes, leucoplasia, carcinoma in situ and early cancer stages, particularly in the inaccessible areas of larynx and nasopharynx.

CONCLUSION

Future Trends in the Assessment of Cervical Nodes

- In the future, sentinel lymphnode biopsy of cervical lymphnodes may play a useful role in the management of patient with head & neck cancer.
- Use of molecular pathological analysis (tumor markers)to predict the presence of occult cervical disease, thus directing therapy to patients at greatest risk and sparing those without regional metastasis. In 2005, Ferris et al 5 identified 4 markers using Quantitative Reverse Transcription Polymerase Chain Reaction (QRT-PCR).
- 4 markers are
  - Pemphigus vulgaris antigen (PVA/desmoglein-3).
  - Squamous cell carcinoma Antigen (SCCA-1/2 neutral & active forms).
  - Parathyroid hormone related protein (PTHrP).
  - Tumor associated calcium signal transducer (TACSTD1), Epithelial cell adhesion molecule (EPCAM).

Results of QRT-PCR

- QRT-PCR successfully discriminated between positive & benign nodes with an accuracy greater than 97%.
- Moreover, one of these markers, PVA, discriminated with 100% accuracy between positive & benign nodes.

Single marker QRT-PCR analysis for PVA provides perfect discrimination between benign & malignant lymphnode in 30 minutes. Thus, demonstrating the feasibility of intra-operative staging of head & neck squamous cell carcinoma is possible by evaluation of sentinel lymph node by QRT-PCR.

It has been shown that, the presence of metastasis can be predicted based upon gene expression patterns, present in the primary tumor by using c-deoxyribonucleic acid (cDNA) microarray.

Acknowledgements

We are highly obliged to Prof. B. Bastia and Prof. J.P. Behera, Superintendents, M.K.C.G. Medical College & Hospital, Berhampur for permitting us to utilize the hospital facilities for the present study.

REFERENCES


Address for Correspondence & Reprint request

Prof. Abhoya Kumar Kar
Gandhinagar 3rd Line East,
Berhampur (Gm.)-760001, India
Ph.: 0680-2225003/09937064983
abhoya.kar@gmail.com

Dear Members of Orissa State Branch of AOI,
Kindly contribute articles and arrange advertisers for next issue (July–Dec., 2009) of Orissa Journal of Otolaryngology & HNS.
Without your kind help it is not possible to publish the next issue.

Prof. Abhoya Kumar Kar
Preventive Otorhinolaryngology (Series - I)
SHEO KUMAR PRASAD

Curative otorhinolaryngology keeps Otolaryngologists preoccupied with incoming advanced techniques, including image guided ESS, Phonosurgery, Microsurgery of ear, etc. Preventive ORL remains partly neglected and limited to holding few hearing & cancer awareness camps.

My active interest in Preventive ORL made me to share my ideas at the 2nd East Zonal AOICON at Shantiniketan about two decades back. This presentation on Preventive ORL probably was the first of its kind at a zonal level. Since then my involvement in this field has been appreciated by colleagues and in some form or other; Preventive ORL has been included in the scientific sessions at most of the AOICONs. Preventive Cardiology, Preventive Orthopedics, Preventive Neurology are already established among other specialities. Prevention in Medicine now does not only cover infective & communicable diseases. Genetics in Medicine has further revolutionized the concept of many diseases.

It is worth appreciating that a good number of diseases in ENT can be prevented or controled.

Among them, hearing impairment by birth, besides possibility of other congenital defects in high risk pregnancy, otitis media are well known and so common that, WHO have formulated a declaration advising all countries to launch national programmes on Prevention of Hearing Impairment. Unfortunately, 75% of these cases of hearing impairment are present in developing countries. However 50% of these constituting genetic, non-genetic, syndromal, non-syndromal are preventable. This supports the desired continued priority attention to preventive otology. Universal Hearing Screening of all newborns, aimed at covering 60% of children, in practice in developed countries including USA appears to be still a dream project for a vast poor country like India. Therefore, this is imperative on the part of Otorhinolaryngologists to contribute their lot in Preventive Otorhinolaryngology.

Further, prompt identification of diseases & early management reduces the risk and gravity of complications & sequelae. Ears, nose & throat being intercommunicating and exposed to atmosphere, bear the brunt of environmental factors including extremes of temperature, allergens, bacteria, viruses, fungi, drug toxicity, faulty use of voice, noise, external trauma, tobacco, betel nut, paan masalas, etc. Recurrent cold, catarrh being common occurrence, specially in immunologically compromised persons of different age groups, often results in a series of inflammatory responses in almost every part of ear, nose & throat. Eustachian tube is short & straight in infants & children. It allows regurgitated liquids, nasal secretions, burped gastroesophageal acidic secretions, easy access into middle ear. Gastro-esophageal reflux keeps hypopharynx and larynx wet with acidic secretions. All these common situations mostly preventable, continue to be common even though well known. This implies that, there is need of more attention and creating more awareness about all preventable and controllable conditions.

Out of all preventable conditions in ORL, Otitis Media is the commonest all over the world. In UK & USA, approximately 30% of children below 4 years, suffer from more than single attack of OM.

India like most of other developing countries does not have a well tailored study on OME.

The goal of ‘Early Hearing Detection & Intervention (EHDI)’ is to be achieved with screening of all infants no later than 1 month of age. Every care is taken not to overlook or miss, diagnosis of a common condition like otitis media. Even this simple step to care and share awareness of Otitis Media will go long way in reducing the incidence of hearing impairment. This is comparable with nipping in the bud i.e resolution/restoration of hearing impairment before this becomes irreversible.

OME

Otitis Media with Effusion is one of the challenging conditions frequently remaining underdiagnosed, more so, in children. Hearing impairment due to OME, often is underestimated, since most of the sufferers include infants & young children, who are often delayed in presentation, since OME is painless. However, incomplete or delayed treatment, besides progression or sequelae of OME invariably leads to hearing impairment, which may not resolve completely. Unfortunately, neonatologists, pediatricians, general physicians do not give desired attention to management of OME. Early presentation and diagnosis is based on otoscopy & tympanometry, which is not done or is not available with pediatricians. Hence, a large number of cases of OME remain undetected. Wax in ears being common, often masks view of tympanic membrane & is most of the times attributed to be the sole cause of blockage or hearing impairment. Removal of wax to visualize tympanic membrane is not easy in young children without sedation or anesthesia. Even otoscopic finding in young children is not easy to appreciate.

British society of audiology in their Position statement - 2007 on APD (Auditory Processing Disorder) mention that,
APD may be observed in children in pre-lingual stage suffering from persistent OME. Such otherwise looking normal child not responding expectedly to calls commands, needs complete ENT check up keeping under consideration OME along with sensorineural hearing loss.

All involved in health care should have an increased awareness of the possibility of the presence of OME in asymptomatic children. The children at risk include, (a) those under care of domestic help or in day care, (b) those with older children, (c) those suffering from recurrent cold, (d) those with smoker parent and (e) those presenting with hearing or behavioral problems.

Management of OME raises several questions. How to diagnose, only on clinical findings or supported with tympanometry? In the conditions prevailing in India, routine otoscopy and screening of above mentioned groups should be followed closely wherever feasible.

OME presents in different ways, (1) asymptomatic, (2) hearing impairment, (3) heaviness in ear, (4) inattentive or non-performing child and (5) tinnitus. When OME turns into ASOM or gradually progresses into glue ear, is difficult to explain. Opinions differ. Yet, with more awareness about OME, incidence of hearing impairment can be brought down.

An occasional different undermentioned situation should be kept in mind while dealing with children suspected to suffer from otitis media or middle ear effusion. The effect of otitis media with effusion (OME) is greater for infants with sensorineural hearing loss than for those with normal cochlear function. Sensory or permanent conductive hearing loss is compounded by additional transient conductive hearing loss associated with OME. OME further reduces access to auditory cues necessary for the development of spoken English. OME also negatively affects the prescriptive targets of the hearing aid fitting, decreasing auditory awareness and requiring adjustment of the amplification characteristics. Prompt referral to either the primary care physician or an Otolaryngologist for treatment of persistent OME is indicated in infants with sensorineural hearing loss. Definitive resolution of OME should never delay the fitting of an amplification device.

It is still a major diagnostic problem that, no method can separate acute otitis media from secretory otitis media. In order to approach this, the current techniques may be utilized better, for instance by introducing tympanometry into general practice. This does not appear easy since in our country as well as in most of the countries in the world, even majority of ENT clinics are not equipped with tympanometer. Tympanometry provides objective documentation and is valuable for diagnosing middle ear effusion. In the long term, this educational element may render tympanometry superfluous to the experienced GP. This indicates that, tympanometry and education for GPs should result in, more relevant cases being referred for treatment by Otolaryngologists, whereas uncomplicated cases can be checked while the children remain in the familiar surroundings of general practice. Tympanometry is a clinically relevant supplement to the examination of a child in general practice.

The author strongly recommends a diagnosis of OM on the basis of symptoms, signs in tympanic membrane and should not wait for tympanometry, if not available. With lusterless or hyperaemic tympanic membrane, more so in a child with respiratory catarrh, OME should be suspected. If a hearing child has reportedly stopped freely responding to calls, there is high possibility of OME.

Acute Suppurative OM refers to an identifiable infection of the middle ear of short duration and sudden onset. Secretory in nature, OME refers to the presence of a middle ear effusion without acute signs or symptoms.

At this stage, it is worth referring to the eustachian tube and its relevance in OME.

Eustachian tube:

Eustachian tube, cartilaginous in lower 2/3, opened by main dilator tensor veli palati, innervated by mandibular division of trigeminal nerve, in young children is shorter (13mm vs 31-38mm), shallow (10deg vs 45 deg from horizontal), has abundant goblet cells. Continued eustachian tube obstruction produces secretory OM. Early transudation of serum into the subepithelial space is seen within 18-24 hours. More metaplasia is seen with increased numbers of pseudostratified, columnar epithelial cells and goblet cells. Resorption of water is thought to promote thickening of the effusion, converting thin serous fluid into a thick mucoid effusion. In temporal bone preparations, thickening and fibrosis of the tensor tympani is seen. This is felt to be important in the development of spasms and contracture of the muscle resulting in retraction and fixation of the tympanic membrane.

Eustachian tube function can be divided into ventilation, drainage and protection from nasopharyngeal secretions. Bluestone has described 4 functional abnormalities radiographically by instilling contrast material into the nasopharynx. The abnormalities include retrograde obstruction, abnormal distensibility, middle ear reflux and retrograde obstruction with abnormal distensibility. The patulous eustachian tube predisposes to middle ear reflux. The abnormally compliant eustachian tube could result in middle ear reflux with slight increase in nasopharyngeal pressure. On the other hand, rapid changes in pressure could cause locking of the tube and functional obstruction. Paparella’s group has proposed that, OM exists as a continuity of mucoperiosteal disease. Epidemiologic
evidence comes from studies, showing the overlap and progression of disease from acute suppurative OM to secretory OM or chronic OM. One out of 5 cases of acute OM is superimposed on a chronic mucoid OM. Temporal bone histology also demonstrates the continuity of mucosal disease. Lastly, experimental animal models of eustachian tube obstruction followed longitudinally, have demonstrated the gradual change from suppurative to secretory to chronic histopathology.

Aetiology of OME:
Speculation on the aetiology of glue ear, has followed the fashion of medicine. Opinions have mild variation in exact aetiology ranging from idiopathic, allergic, autoimmune to genetic factors playing dominant role. At a strictly structural level, the ‘ex-vacuo’ mechanism is widely accepted. Alterations occur in the mucociliary system in middle ear cleft with dysfunction of eustachian tube. This leads to inadequate ventilation of middle ear, resorption of air, tissue hypoxaemia & hypercapnia and metaplasia of the cuboidal epithelium lining of middle ear. Columnar epithelium and goblet cells stay. There follows secretion of fluid, either sterile or infected, ultimately leading to retraction of tympanic membrane, impaired mobility of the ossicles and in a few patients, formation of an inspissated mass of growing squamous epithelium or cholesteatoma with bony erosion and its sequelae.

Role of infection is still the subject of debate. Bacteria can be isolated from substantial proportion of chronic middle ear effusions. However, a chicken and egg situation applies to infection & effusion. While some effusions follow directly on an attack of OM, this by no means applies to all. Conversely, incidence of acute OM, is higher among children with established effusion. Acute and chronic OM merge imperceptibly. Persisting beyond 3 months, effusion may be called chronic. In a series of OME, H.influenzae, Streptococcus pneumoniae have been found in middle ear fluid & nasopharynx.

Course of events in OM as of relevance to OME:

It is worthwhile to recapitulate three recognised instances or stages of otitis media.

The clinical decisions should combine symptoms and signs, otoscopy and tympanometry. In general, three scenarios are described: acute, subacute and chronic. The clinician needs the relevant information to differentiate OME from other simulating conditions. It is difficult to envisage when one changes to the other form.

Acute
Development within a few days with earache and deteriorated general condition. Otoscopy showing signs of acute infection (red to yellow, opaque, bulging). If fever >38°C, penicillin V 50 mg/kg/day for 5 days was recommended. Symptomatic treatment is given with analgesics and/or decongesting nose drops, saline for infants. Check-up, if symptoms persist.

Subacute
Intermittent or constant ear problems staying for weeks to a few months. Otoscopy shows a pale, red and retracted eardrum, even air bubbles or fluid level. Tympanometry indicates negative pressure or fluid in middle ear. Symptomatic treatment is given with analgesics and/or decongesting nose drops, saline for infants. If middle ear pressure is more negative than -299 daPa or fluid is present, a check-up should be scheduled in 4 weeks.

Chronic
Persisting, discrete ear problems remain for months. Most cases are referred to Otologist due to: abnormal tympanometry for >3 months, four episodes or more of acute otitis media within 12 months, therapeutic failure in general practice, suspicion of significant hearing impairment and/or speech/language problems or other otological disease.

As far back as in 1996, in an article, “ The management of childhood otitis media with effusion”, Robert Mills observed, it is clear that OME is a self limiting condition, but it may take as long as 10 years to resolve. This slow process of resolution of OME in children under 3 years may interfere with speech development, behavioural problem & underachievement in school age children. Therefore, OME demands early diagnosis and effective management.

Question arise, should one wait for resolution in OME or start immediate treatment ? How long one should wait for resolution before deciding on surgical treatment ?

Managing OME:
Medical intervention is the process by which a physician provides medical diagnosis and direction for medical and/or surgical treatment options for hearing loss and/or related medical disorder(s) associated with hearing loss. Treatment varies from the removal of cerumen and the treatment of OME to long-term plans for reconstructive surgery and assessment of candidacy for cochlear implants. If necessary, surgical treatment of malformation of the outer and middle ears, including bone-anchored hearing aids, should be considered in the intervention plan for infants with permanent conductive or mixed hearing loss, when they reach an appropriate age.
Children with otitis media with effusion should not be treated with antibiotics. Decongestants, antihistamines or mucolytics should not be used in the management of otitis media with effusion. The use of either topical or systemic steroid therapy is not recommended in the management of children with otitis media with effusion. Autoinflation may be of benefit in the management of some children with otitis media with effusion. Children with frequent episodes (more than four in six months) of acute otitis media or complications, should be referred to an Otolaryngologist. Children under three years of age with persistent bilateral otitis media with effusion and hearing loss of \( \leq 25 \) dB, but no speech and language development or behavioural problems, can be safely managed with watchful waiting. If watchful waiting is being considered, the child should undergo audiometry to exclude a more serious degree of hearing loss. Children with persistent bilateral otitis media with effusion who are over three years of age or who have speech language, developmental or behavioural problems should be referred to an Otolaryngologist. Antihistamine/decongestant preparations have been widely used, but there is no evidence that, they are effective. Antibiotics produce short term improvement, but usually do not influence the course of the disease in the longer term. Systemic steroids appear to have a short term benefit, but are not an undesirable treatment for benign self limiting disease process. Mucolytes have been tried, but are ineffective. Auto inflation in grown up children is done with the help of a device, Otovent, working on the known principle of Politzerisation, may give short term relief.

**Surgical treatment:**

Myringotomy with counter puncture in presence of thick fluid or glue in middle ear is essential to prevent tympanosclerosis or adhesive otitis media with conductive deafness with sensorineural component. There have been some reports in literature on development of tympanosclerosis with prolonged stay of ventilation tube in middle ear. Adenoidectomy has been recommended as a procedure which promotes resolution in OME and restores patency of eustachian tube. This holds true in children above 4 years, who have adenoids blocking eustachian tube opening, specially those having recurrent episodes of secretory otitis media/OME.

It is recommended that, the otherwise healthy child with OME be evaluated at 1 to 2 months after diagnosis and then again at 3 months after diagnosis or until either spontaneous, medical or surgical resolution of the effusion is achieved or until basis for a referral is identified.

**REFERENCES :**

1. Year 2007 Position Statement:Principles & Guidelines for Early Hearing Detection & Intervention Programs; Joint Committee on Infant Hearing;Pediatrics VOL.120 No.4 October 2007, pp 898-921
3. Robert Mills;The management of childhood otitis media; JR Soc Med. 1996 March; 89(3); 132-134
4. www.GHORAYEB.COM

**SHEO KUMAR PRASAD,** ENT SPECIALIST, PATNA 800004, BIHAR
drskprasad@gmail.com T. 612-2671073
The author acknowledges all the sources of information sought for this article.

---

One of our member Prof. Urmila Pani passed away. She worked as a teaching faculty in all the three Govt. Medical Colleges of Orissa and retired as Prof. & HOD ENT, S.C.B. Medical College, Cuttack in 1995.

We pray GOD to keep her soul in peace.
Ligation Vs Bipolar Diathermy Coagulation For Haemostasis In Tonsillectomy – A Comparative Study

M. S. Arun
Senior Resident

T. S. Anand
Professor

Ekta Chhabra
Senior Resident

T. B. Shashidhar
Senior Resident

Saumitra
Junior Resident

Department of Otolaryngology & Head Neck Surgery
Lady Hardinge Medical College and Associated Hospitals, New Delhi -110001

ABSTRACT:

Objective: To determine whether standard dissection with snare followed by spot coagulation with bipolar diathermy for tonsillectomy resulted in less operative time and less post operative complications as compared to standard dissection with snare followed by ligature for haemostasis.

Design and Setting: A randomized prospective study of 2 groups of patients undergoing tonsillectomy.

Subjects: Thirty patients between the ages of 4 and 55 years.

Intervention: The thirty patients were randomly assigned to 2 groups: in group A, the tonsillectomy was performed with standard dissection with snare followed by spot coagulation with bipolar diathermy; in group B, the tonsillectomy was performed with standard dissection with snare followed by ligature. The same surgical team performed each tonsillectomy. Other aspects of the procedure were constant, including patient positioning, type of anaesthesia and the use of postoperative antibiotics and analgesics.

Outcome Measures: The subjective measure of postoperative pain was a questionnaire based on a standard visual analog scale ranging from 0 to 4. More objective measures included visual assessment of post operative complications and time to first post operative oral feed.

Results: 30 patients participated in the study. There were 12 females and 18 males. The age ranged from 5 to 36 years. Ligature was used in 15 patients and Bipolar diathermy was used in 15 patients selected at random. The time to achieve haemostasis was more in case of bipolar diathermy (19.06min) as compared to ligature (17.26min), the difference was not significant. On the first postoperative day the pain appeared to be equal between the two groups, but the time to first oral feed in case of diathermy patients was 4-6 hrs as compared to 8-10 hrs in patients in the ligature group. Pain appeared to persist in patients treated with diathermy as compared to those in whom ligature was used. There was no case of postoperative haemorrhage in either group in this study. There was no difference in the slough seen post operatively between the two groups. The failure rate for diathermy group was six out of the fifteen cases as compared to none in the ligature group, the difference was found to be significant (P < 0.02).

Conclusions: The present study shows that, bipolar diathermy spot coagulation has no particular advantage over standard ligature, in fact ligature is still a better option, as intraoperatively there are no failures as all bleeders were controlled as opposed to six failures with diathermy and post operative complications were also much lesser. Bipolar diathermy can be kept as a useful adjunct to ligature, minor bleed or oozing can be controlled easily with bipolar diathermy and ligature can be reserved for major vascular bleeds. The best option is to use both modalities judiciously while performing tonsillectomy.

Introduction:

The first description of tonsil surgery came from Hindu medicine in 1000 BC. Tonsillectomy is one of the most frequently undertaken surgical procedures. There is still controversy over, which is the optimal technique of tonsillectomy with the lowest morbidity rates. Hemostasis and pain have always been important principles in performing and managing patients following tonsillectomy. Dissection and hemostasis with bipolar electrocautery is a known standardized modality of tonsillectomy. Some authors believe that, diathermy produced much less pain, while others believe that bipolar electrocautery is a easier, faster method having less procedural blood loss during tonsillectomy. Some authors believe that, it suffers from limitations of causing excessive post operative pain. However it’s clear cut superiority over cold knife is yet to be established. In 2004, Krishna et al published their results of a 13 question survey mailed to a small percentage of
AAO-HNS members to evaluate the practice patterns of otolaryngologists with regard to tonsillectomy. They concluded that, sharp dissection was the technique used most frequently among otolaryngologists in practice more than 20 years, while electrocautery was the technique used most often as a whole and by those in practice between 5-20 years. The reason for the preferred method of tonsillectomy was most commonly decrease in blood loss. This article aims to resolve the controversy as to whether electrocautery (diathermy) is better than ligature for controlling bleeding during tonsillectomy, in terms of time to achieving complete haemostasis, post operative pain & post operative recovery.

MATERIALS AND METHODS

This study was conducted in Department of E.N.T, Lady Hardinge Medical College and associated S.S.K.H & K.S.C.H, New Delhi. Thirty patients aged between 4-55 years with recurrent episodes of acute tonsillitis that was unresponsive to medical therapy for more than 3 months were included in the present study. Basic hematological workup was done for all patients. Informed consent was taken from all the patients for the planned procedure in proforma approved by the institutional ethical committee. Patients were randomized to undergo tonsillectomy with dissection & snare method with haemostasis being achieved by ligating with 2.0 vicryl suture or by bipolar diathermy coagulation under general anesthesia. All patients having bleeding disorders, known systemic diseases such as – uncontrolled diabetes mellitus, severe hypertension and serious debilitating conditions & patients undergoing any other procedure for example – myringotomy, grommet and lymph node biopsy simultaneously were excluded from the study. Tonsillectomy on each side was performed by standard technique of dissection and snare method. The patients were divided randomly into two groups:

- **GROUP 1:** In this group haemostasis was achieved by ligation of the bleeding points in tonsillar bed with 2.0 vicryl. This group consisted of 15 patients.
- **GROUP 2:** In this group haemostasis was achieved by bipolar diathermy coagulation of the bleeding points in tonsillar bed. This group consisted of 15 patients.

Adenoidectomy was done as and when required. Parameters such as duration of operation, post operative pain by visual analogue scale and use of analgesia, post operative changes like slough, scarring and other complications were also noted and analyzed in the study. The results were analyzed by independent student T test.

**Results**

From Dec 2004 to April 2006, 30 patients were operated in this study. There were 12 females and 18 males. The age ranged from 4-55 years with an average age of 14.63yrs. Ligature was used in 15 patients and Bipolar diathermy was used in 15 patients, selected at random.

The time to achieve haemostasis was more in case of bipolar diathermy (19.0667min) as compared to ligature (16.8667min). The difference between the operative times of the two techniques was statistically not significant.

On the first postoperative day the pain appeared to be equal between the two groups, the time of start of first oral feed in case of diathermy patients was 4-6 hrs as compared to 8-10 hrs in patients in whom ligature was applied. Post-operatively on day 7 and day14, it was found that, pain persisted in patients treated with diathermy as compared to those in whom ligature was applied. There was no case of reactionary or secondary hemorrhage in this study. There was no difference in the slough seen postoperatively between the two groups. In this study there were 3 patients who developed postoperative oedema of the uvula in the diathermy group due to application of bipolar cautery near uvula. There was no incidence of oedema of the uvula in the ligature group. In our long term follow up from 3 weeks to 6 weeks, no significant difference was seen in the incidence of smooth tonsillar fossa, hypertrophied lymph nodes and change in voice between the two groups. Only one case of bipolar diathermy developed postoperative scarring of the soft palate and tonsillar pillars due to excessive use of diathermy and in this case there was slight change in voice production.

**Fig 1**: Clinical photograph of patient from Group B showing scarring after Bipolar Electrocautery.

The failure rate (conversion of diathermy to ligature) for diathermy group was six out of the fifteen cases as compared to none in the ligature group. This difference was found to be very significant (P < 0.02).

Table No 1. Showing surgical outcomes in two groups.

<table>
<thead>
<tr>
<th>Group a - haemostasis was achieved by ligation.</th>
<th>Group b - haemostasis was achieved by bipolar diathermy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The failure rate (conversion of diathermy to ligature) for diathermy group was six out of the fifteen cases as compared to none in the ligature group. This difference was found to be very significant (P &lt; 0.02).</td>
<td>Table No 1. Showing surgical outcomes in two groups.</td>
</tr>
</tbody>
</table>

**Discussion**

Ideally tonsillectomy should be quick, painless and associated with minimum blood loss. There is evidence
from retrospective data that, the electrocautery reduces the incidence of postoperative bleeding. Haase & Nogura (1962) showed that electrocautery (after dissection snare) was associated with little primary bleeding.¹¹

In our study primary operative technique was same in both groups, so intraoperative bleeding was almost similar in both groups. Six patients in bipolar cautery group required application of ligature to achieve hemostasis, in these cases the total time duration of surgery was more. Post operative pain was found to persist longer in diathermy group as compared to ligature group. Similar conclusion was derived from a study conducted by Roy et al, that diathermy caused more postoperative pain⁶.

Many studies have been conducted in the past, Papangelou(1972) ³, Ritter & Fink(1972)⁴, Roy et al (1976) ⁶, Malik et al(1982)⁵, Watson et al (1993)⁸, all concluded that, diathermy was faster than ligature. Whereas, our study had more operative time for bipolar diathermy group.

The present study shows that, bipolar diathermy spot coagulation has no particular advantage over standard ligature. Ligature appears to be superior method of securing haemostasis. We feel that, bipolar diathermy can be kept as a useful adjunct to ligature for minor bleeds. Diathermy is indispensable in patients with bleeding disorders to minimize blood loss. The best option is to use both modalities judiciously while performing tonsillectomy.

**Conclusion:**

We conclude that, hemostasis with ligature tonsillectomy in dissection and snare method is superior than hemostasis with bipolar cautery after tonsillectomy with dissection and snare method. The advantages of ligature in the present study was reduction in the operative time, less failure rates and less complications. In this study bipolar diathermy has the advantage of ease of application. The best option is to use both modalities judiciously while performing tonsillectomy.

**References:**


Address for corresspondence & reprints

**Dr. T. S. ANAND**
Professor of ENT, 
Lady Hardinge Medical College, 
New Delhi -110001 India
Email : docotor_anand@yahoo.co.in

Our Editorial Chairman, Prof. Abhoya Kumar Kar has been elected (uncontested) as President, Indian Medical Association, Orissa State for 2009-10. He has taken over charge of his office at IMA State Conference, Bhabdrika on 14.02.09.
A Beginner's Aid to Nasal Endoscopic Procedures

R. Raman  
Professor

Maznan B. Dahalil  
Senior Technician, Maxillo-Facial laboratory

N. Prepageran  
Assoc Professor

E.N.T.Dept, Faculty of medicine, University Malaya - 50603, Kuala Lumpur, Malaysia.

Abstract: The advent of endoscope has revolutionized nasal surgery in the last decade. Endoscopic sinus surgery is widely performed at present & more and more trainees are having access to endoscopes. The use of endoscopes in nasal surgery is not without complications. It is quite easy for the novice to get "lost" in the nasal cavity with an endoscope, especially if he is not trained. To overcome this, we have devised a teaching aid to nasal endoscope, that helps the beginner to orient the relative position of the endoscope to the important landmarks in sinus and nasal surgery.

Keywords: endoscope, complication, teaching aid.

Nasal endoscopy and its operative procedures are becoming increasingly common these days. However nasal endoscopic surgery is not without complications. Entries into the orbit, breaking into the dura of the anterior cranial fossa causing a CSF leak are a few major complications\textsuperscript{1} (Mackay & Lund, 1997).

One of the reasons for these complications is the improper direction, the 0-degree endoscope is pointed with the patient in the supine endoscopic position. It is easy for an inexperienced person to become disoriented, when viewing into the nasal cavity with an endoscope.

Hence a device has been designed (Figure I A, B). This device (Figure I A) is a simple metallic clip. The lateral end is modified with acrylic or metal with a hole to fit the metallic pointer. The metallic pointer (Figure I B) is fitted into this hole. The length of the pointer can be adjusted according to the surgery and the patient. This then can be clipped on to an endoscope. (Figure I B). Figure II shows the endoscope in the nose with the device attached. Part 2 in the device (Figure I B) acts as the external pointer. This gives the surgeon an idea as to where the endoscope is pointed internally, so that appropriate correction can be made in the direction of the endoscope. The tip can be angled 30 or 70\textdegree to correspond to 30 or 70\textdegree endoscope. It can also be used as a pointer to the lacrimal sac for endoscopic DCR in the absence or unavailability of the fiberoptic light cable. It is believed by using this device, complications, such as injury to the orbit and dura can be avoided. It is suggested as an aid for beginners in nasal endoscopy till they develop familiarity with the internal endoscopic view of the anatomy.

References:

1. I.S. Mackay, V.J. Lund; Chapter 12; Surgical management of Sinusitis; Vol 4; Scott Brown's Otolaryngology; 6th edition; Oxford Butterworth Heineman, 1997; p.21

Address for correspondence & reprint requests:

N. Prepageran  
E.N.T.Dept, Faculty of medicine  
University Malaya  
50603, Kuala Lumpur, Malaysia  
Tel no 00603 79492062  
Fax 00603 79556963  
E mail: prepageran@yahoo.com
Introduction:
Foreign body ingestion is a potentially serious problem that peaks in children aged six months to three years. It causes serious morbidity in less than one percent of all patients. Coin ingestion is common in children due to their innate curiosity. A majority of the coin ingestions in children appear to be from single coins. We have encountered twin (two of the same) coins in the esophagus in three cases.

Case Report:
Case 1
A 7 year old female child was referred to our department by the pediatric casualty with complaints of foreign body ingestion and dysphagia to both solids and liquids for six hour duration. There was no complaint of dyspnoea. Patient's general condition was normal. Local examination revealed drooling of saliva and the oropharynx was filled with secretions. No foreign body was visualized in the oropharynx. Indirect laryngoscopy could not be performed. X-ray soft tissue neck, posterior-anterior and lateral views showed a coin-like radio opaque shadow at the level of the cricopharynx. Rigid oesophagoscopy was performed under general anesthesia and the two (one rupee) coins were removed.

Case 2
A 5 year old male child attended our pediatric casualty with complaints of foreign body ingestion, salivation and odynophagia. The detailed history was taken from the patient's parents. Plain X-ray neck lateral view and P.A. view were done. Both films revealed coin-shaped radio-opaque shadow at cricopharynx, but lateral view gave us a doubt about the possibility of two foreign bodies being present. The patient was subjected to rigid oesophagoscopy under general anesthesia and the two (one rupee) coins were removed.

Case 3
A 4 year old female child was brought to our out-patient department with complaints of ingesting two similar coins and foreign body sensation in the throat for three hours duration. Patient's general condition was stable. She was not in distress. Local examination of oral cavity and oropharynx appeared to be normal. X-ray soft tissue neck, posterior-anterior view showed a coin-like radio opaque shadow at the level of the cricopharynx.

Abstract: Foreign body ingestion is a potentially serious problem that peaks in children aged six months to three years. It causes serious morbidity in less than one percent of all patients. Coin ingestion is common in children due to their innate curiosity. A majority of the coin ingestions in children appear to be from single coins. We have encountered twin (two of the same) coins in the esophagus in three cases.

Keywords: coin ingestion, esophagus, multiple coins.
X-ray soft tissue neck, lateral view showed two coins. Rigid oesophagoscopy was performed under general anesthesia and both the two rupee coins were removed.

Post operative x-rays and recovery period was normal among all three patients.

Discussion:

Foreign body ingestion is a common occurrence, with children younger than 10 years old making up the majority of cases. The variety of objects ingested is limited only by the size and shape of the object, though coins are the most frequent nonfood foreign body for both children and adults. The main determinants whether a coin will lodge in the esophagus are patient age, coin size and the presence of esophageal abnormalities.

Review of literature reveals, coin ingestion as the commonest foreign body in the pediatric age group, but multiple coins as foreign body in the esophagus is a rare situation. In some cases, coins can be associated with another form of foreign body (pen cap, eraser, safety pin, toy, hair pin, etc.). Such secondary foreign bodies can be noted during direct laryngoscopy and removed without the use of an esophagoscope.

The esophagus has 4 regions of anatomic narrowing: at the level of the cricopharyngeus, at the level of the aortic arch, at the level of the left main stem bronchus and at the lower esophageal sphincter. The cervical portion has the highest reported involvement in multiple series. Smaller coins usually pass through the esophagus without incident, but may become lodged if some pre-existing abnormality, such as a stricture or diverticulum, if it is present.

A detailed history from the informant about the type and number of foreign bodies is essential. Radiology plays an important role in the management of radio-opaque foreign bodies in esophagus. Routine X-rays of the neck (lateral and postero-anterior views) in all cases of suspected foreign bodies of esophagus is vital. From our experiences, lateral view x-ray of the neck is most useful in detecting multiple coins in the esophagus.

Conclusion:

Though rare, multiple coin ingestion should be kept in mind while examining a patient with foreign body ingestion. Lateral view x-ray of the neck can help in detecting multiple coins in the esophagus. During oesophagoscopy, the whole lumen should be carefully visualized from insertion to withdrawal of the oesophagoscope. Post operative check x-rays are mandatory.

ACKNOWLEDGEMENTS

We would like to place on record our sincere thanks to our Dean, Professor Dr.N.Chidambaram for encouraging us and our Medical Superintendent, Professor Dr.S.Vishwanathan for allowing us to use the hospital records to prepare the manuscript.

References:


Address for correspondence:
Dr. Ruta Shanmugam
87, East Car Street
Chidambaram – 608 001.
Tamilnadu, India.
Phone: 04144 – 224654, 224650
Mobile : 9842338163, 9344338163
E-Mail : shanrut@yahoo.co.in.

Dear Members,

Kindly inform your achievements to be published in the Journal.

Prof. Abhoya Kumar Kar
Case Report:
A 15 year old female came to us with complaints of bilateral ear discharge since childhood. She had an episode of meningitis in the past for which she underwent left canal wall down mastoidectomy 3 months ago, details of which are not available.

On ear examination she had grade IV attic destruction with cholesteatoma flakes in the right ear. She also had granulations on the pars tensa & a bulge in the external auditory canal.

Her left ear showed a healed mastoid cavity.

Pure tone audiogram showed bilateral moderate conductive hearing loss. X-ray mastoids showed bilateral lytic shadow.

In view of cholesteatoma, a decision regarding surgery was undertaken. A right canal wall down mastoidectomy was performed. Intraoperatively, only malleus & stapes footplate were present, rest of the ossicles were absent. Cholesteatoma was involving mesotympanum, attic & extending into antrum, it was removed in toto. Fallopian canal was intact except for a small area of bony dehiscence on its inferior aspect, posterior to Processus Cochleariformis, from which facial nerve was bulging out. Usual landmarks for facial nerve were preserved. We decided to do a bony decompression of facial nerve. When traced, rather than turning at second genu under the dome of lateral semicircular canal, it was found to be coursing straight under the lateral semicircular canal & it was only near the summit of lateral & posterior semicircular canals, that it finally turned downwards forming the second genu, which was quite a distance away from the pyramidal eminence, to continue its vertical course down to stylomastoid foramen. She also had a labyrinthine fistula involving lateral semicircular canal.

A canal wall down mastoidectomy with staged tympanoplasty & repair of labyrinthine fistula were done. Post-operative period was uneventful.

Facial Nerve: A New Anomaly of Tympanic Segment
Kumar Avanindra
Ex - Senior Registrar
Dept. of Otorhinolaryngology & Head & Neck surgery
King Edward VII Memorial Hospital & Seth G. S. Medical College, Mumbai, India

Singh Manish K.
Ex - Registrar

Abstract: The facial nerve as traverses the temporal bone, is known to show congenital bony dehiscences, variations & anomalies. These are important for their clinical & surgical significance. We hereby describe an anomaly of tympanic segment of facial nerve, which has never been described in the literature up till now.

Key words: Facial nerve, Facial nerve anomaly

Discussion:
Embryologically facial canal is derived from two separate entities, primordial otic capsule & Reichert cartilage, which start ossifying by 10 weeks of intrauterine gestation.

Figure 1: Normal course of tympanic segment & second genu of facial nerve

Figure 2: Anomalous course of tympanic segment & second genu of facial nerve

This type of facial nerve anomaly has not been described in the literature so far, we couldn’t take an intraoperative photograph due to technical problems, though we are representing the same by a schematic diagram.
Under lateral semicircular canal it forms second genu & continues as the mastoid segment.
The concavity of second genu is divided by the pyramidal eminence, the second genu faces the rounded eminence of the promontory separating the round & oval windows.
The convexity of the second turn of the facial canal is situated anteriorly to the posterior semicircular canal & the posterior cranial fossa.

Multiple anomalies of facial nerve have been described in the past involving its meatal, labyrinthine, tympanic as well as mastoid segments. The anomalies pertaining to tympanic portion which have been hitherto described are as follows:
- facial nerve coursing along the superior aspect of horizontal semicircular canal.
- bifurcation of facial nerve anterior or proximal to oval window.¹,²
- facial nerve coursing horizontally over oval window.³
- facial nerve coursing through stapedial arch.⁴,⁵
- facial nerve coursing between oval & round windows.⁶,⁷
- facial nerve coursing posteriorly inferior to the round window.
- facial nerve coursing from geniculate ganglion straight downward over the promontory.⁸
- hyperplasia of facial nerve.⁹,¹⁰

Facial nerve in this patient was not only found to be dehiscent, but also had an anomalous course. Rather than turning downwards at second genu, under the dome of lateral semicircular canal, it was found to be coursing straight, under the lateral semicircular canal. It was only near the summit of lateral & posterior semicircular canals that it finally turned downwards, forming the second genu, which was quite a distance away from the pyramidal eminence, to continue its vertical course down to stylomastoid foramen. The surgical landmarks for facial nerve were well preserved despite the presence of middle ear disease & cholesteatoma. Fallopian canal was intact throughout except for a small bony dehiscence on its inferior aspect, which situated posterior to Processus Cochleariformis. Apart from above mentioned anomalous course, facial nerve didn’t show any bifurcation, additional branches or any other anomalies.

This anomaly has never been described before in the published literature as per the author’s knowledge. Therefore we thought it apt to put this on record, so that while doing mastoid surgery this anomaly should also be kept in mind.

References:
7. Leek JF: An anomalous facial nerve; the otologist’s albatross. Laryngoscope 84:1535-1544, 1974
10. OCNA: Anatomic variations & anomalies involving the facial canal, 531-553, vol. 24, number 3, June 1991

Address correspondence & reprint requests:
Dr. Avanindra kumar
G-34, Hyderabad estate, Napean sea road
Mumbai, India-400006
Phone: 919820349033
Fax: 9122-24143435
Email: dr.avanindra@gmail.com
Parapharyngeal Neurofibroma – A Case Report

Khageswar Rout
Asst. Surgeon

Smruti Swain
Asst. Professor

Subrat Kumar Behera
Associate Professor

Swarupananda Mishra
P. G. Student

DEPARTMENT OF E.N.T, S.C.B. MEDICAL COLLEGE, CUTTACK

Abstract : We report a case of neurofibroma in parapharyngeal space, which is rare in this region. Patient presented to us with dysphagia and swelling in throat. The growth was operated by transoral route after tracheostomy. The patient is disease free and has no recurrence.

Key Words : Neurofibroma, Parapharyngeal space (PPS).

Introduction :
Neurofibromatosis is an autosomal dominant disease that affects one in 2,500 - 3,000 births\(^1\). The incidence of neurofibromas reported in the head and neck is 37%. Parapharyngeal space neoplasms are rare forming only 0.5% of all head and neck tumours. Moreover neurofibroma is a rare tumour in PPS, reported as 2.6% in a study\(^2\). Therefore, we report a case of neurofibroma of parapharyngeal space which will add to total number of cases worldwide.

Case Report :
A 34 yr. male presented to Department of ENT & Head and Neck Surgery, S.C.B. Medical College, Cuttack on 22nd August, 2008 with chief complains of lump in the throat, difficulty during swallowing and swelling in the upper part of left side of the neck. Patient had difficulty in breathing, hot potato voice. All the symptoms were of a duration of 6 months to 2 yrs with gradually progressive in nature. The swelling was firm, non tender, freely mobile below the mucosa. Transillumination test was negative. X-ray lateral view of neck showed, it extended vertically from C2 to C5 cervical vertebra. CT scan of head and neck was done which revealed a solid mass in the parapharyngeal space extending to the retropharyngeal space. The patient was planned for surgery under general anaesthesia. Due to difficult intubation, tracheostomy was done through which patient was intubated. By transoral approach the mass was enucleated in toto (7cm x 6cm) after giving a vertical incision over the swelling & after gentle dissection of mucosa. The specimen was sent for histopathological study and reported to be neurofibroma. The post operative period was uneventful and patient was relieved of all his symptoms. The patient is doing well and has no recurrence until now.

Fig. 1 : Showing a mass on left side of upper part of neck.

Fig. 2 : CT picture showing mass in parapharyngeal space.

Fig. 3 : Transoral excision of mass.

Fig. 4 : The mass excised in toto.

Fig. 5 : Histopathological picture showing nuclear buckling in mixed stroma.

Fig. 6 : Postoperative photograph of patient.

Discussion :
Neurogenous tumours arise from the neural crest, which differentiates into the schwann cell and the sympatheticoblast. Neurofibroma has a double origin from schwann cells and perineurium. The nerve fibres are incorporated within the tumour and passes through it. Surgery is usually prefered because it is a benign tumour. Although the schwannoma is commonest neurogenic tumour in PPS, neurogenic neoplasm is only found in one quarter of PPS tumours. They usually arise from sympathetic chain or vagus. Schwannomas almost always occur as solitary lesions, where as neurofibroma may occur alone or in a multiple numbers especially in patients in peripheral form of Von Recklinghausens disease\(^3\). PPS neurofibroma is one of the rare manifestations of neurofibromatosis type - 1, occurring in less than 5% of all PPS neoplasms\(^4,5\).
Management of benign neurofibromatosis must be individualized for each patient and ranges from incisional to wide local excision. Surgical management is nearly always required for functional or cosmetic reasons or to exclude the possibility of malignant transformation. In our case the main indications for surgery was dysphagia and cosmetic deformity.

REFERENCE:

Correspondence Address:
DR. KHAGESWAR ROUT
DEPTT. OF E.N.T,
S.C.B. MEDICAL COLLEGE, CUTTACK, PIN-753007
Email-khageswar_23@rediffmail.com

With best compliments from:

Centaur
We Impart Health to Life
Introduction:
Rhinoliths are calcareous concretions around calcinated intranasal foreign bodies within the nasal cavity. Rhinoliths usually present with unilateral foul smelling nasal discharge in children. In adults they generally present with nasal obstruction. It is unusual for a rhinolith to remain asymptomatic. They are usually found in the anterior part of the nasal cavity and are diagnosed on history and anterior rhinoscopy. Nasal endoscopy is very valuable for making this diagnosis. Radiological evaluation is needed for confirming the diagnosis and to detect any complications. A case of a 54 year old female who had presented with intermittent epistaxis for the last 11 years will be discussed here.

Case History:
A 54 year old female presented in the ENT OPD with the chief complaint of bleeding from Lt. nasal cavity for the last 11 years. Epistaxis was insidious in onset. Bleeding was fresh, minute in amount (3-5 ml), with 4-5 episodes per week. The bleed used to stop on its own. There was also history of intermittent nasal obstruction. There was no history of putting anything in the nose, nasal trauma, previous nasal surgery, loss of smell, headache. Anterior rhinoscopy was not significant. No foreign body could be seen. Nasal endoscopy revealed a brown coloured irregular mass in middle meatus in left nasal cavity. Probing revealed a hard, friable and gritty mass. The mass was present between nasal septum and middle turbinate. The surrounding mucosa was oedematous and there was a bulge on the corresponding part of nasal septum of opposite side. There was no septal perforation. A CT Scan of nose and paranasal sinuses showed a calcified lesion in Lt. nasal cavity with maxillary, ethmoid and sphenoid polyposis in Lt. nasal cavity. A diagnosis of rhinolith was made and the patient was taken up for surgery under endoscopic vision. This article also includes a brief review of the literature.

Discussion:
Rhinoliths are greyish brown coloured, foul-smelling, rough-surfaced, friable structures, often situated in the anterior half of the nasal cavity on its floor. The other locations reported are in the maxillary and frontal sinuses. Bertholin gave the first documented description in 1654. Rhinoliths usually present in the third decade of life and rarely occur in children, with females more commonly affected than males. The pathogenesis of rhinolith is not clear. It has been speculated that, a foreign body incites a chronic inflammatory reaction, with the deposition of mineral salts. The foreign body acts as a nidus, that causes obstruction of nasal secretions, deposition of minerals and promotes enzymatic activities of bacterial pathogens. Most foreign

**ABSTRACT:** Rhinolith is an uncommon nasal mass in adults. For rhinolith to remain asymptomatic for a long duration is very unusual. We report the case of a 54 years old female who had largely remained asymptomatic for a long time except for epistaxis from Lt nasal cavity for the last 11 years. Rigid diagnostic endoscopic examination of left nasal cavity revealed a rhinolith. It was removed under endoscopic vision. This article also includes a brief review of the literature.
bodies are exogenous, such as beads, buttons, pieces of paper, cherry bits, stones, sand, fruits, peas, parasites, wood or glass and they usually enter through anterior nares. Rare endogenous agents causing true rhinolith include clotted blood, bacteria, leukocytes, bone fragments and teeth. The typical symptoms of rhinolith are unilateral nasal obstruction, foul smelling purulent nasal discharge and epistaxis. Other symptoms include crusting, swelling of nose or face, anosmia, epiphora and headache. On rhinoscopy, a mass or nodule with well- or ill-defined borders with a hard gritty sensation on probing is often found. The typical radiological features are radio-opacity with central translucency. On CT scan, it appears as a homogenous, high-density lesion with smooth mineralization. The central portion of the lesion, which may contain organic material, may be of somewhat lower density or a foreign-body nidus may be seen. CT Scan cannot differentiate a rhinolith from any other calcified mass, but can detect any complications caused by rhinolith. Rigid endoscopy has an immense role in establishing a diagnosis and in evaluating the posterior extent of a rhinolith. It is a cost-effective diagnostic as well as therapeutic method. The endoscopic nasal surgery provides an opportunity to manipulate and remove entire mass under direct visual control and at the same time is helpful in managing any complications of rhinolith. The most important differential diagnosis of a rhinolith include haemangioma, osteoma, calcified polyps, enchondroma, dermoid, chondrosarcoma, osteosarcoma, syphilis and tuberculosis. The complications reported are sinusitis, septal perforation, palatal perforation, recurrent otitis media and recurrent dacryocystitis. In most cases, rhinolith of nasal cavity can be removed through the nostrils. Only in rare cases extended surgical approaches, e.g. alar release or lateral rhinotomy, are necessary for complete removal of the stone. A rhinolith that cannot be removed surgically, could be disintegrated using a lithotripsy. The extended use of the nasal endoscope began a new horizon in the diagnosis and management of rhinolith. The diagnosis is straightforward on examination with a rigid endoscope.

Bibliography:

Address for Reprints and Correspondence:
Dr. Saurabh Varshney
Professor & Head
Department of ENT
Himalayan Institute of Medical Sciences
Jollygrant; Doiwala
DEHRADUN – 248 140 (Uttarakhand)
e.mail – drsaurabh68@gmail.com

Prof. Abhoya Kumar Kar has been invited as GUEST SPEAKER by IFOS (ENT World Congress) to be held at Sao Paulo, Brazil (1st to 5th June, 2009) to give talk on:

1. CARCINOMA MAXILLA (June 1, 09 4:30 to 5:30 P.M.)
2. DOES QUALITY OF LIFE PREDICT LONG TERM SURVIVAL IN PATIENTS WITH CANCER OF HEAD & NECK (June 2, 8:30 to 9:00 A.M.)
A Rare Case of Tuberculous Neck Abscess

VIVEK V. HARKARE
PROFESSOR AND HEAD

SONALI P. KHADAKKAR
ASSISTANT LECTURER

NITIN V. DEOSTHALE
ASSOCIATE PROFESSOR

GAYATRI B. DHOK
ASSISTANT LECTURER

DEPARTMENT OF ENT, NKP SALVE INSTITUTE OF MEDICAL SCIENCES, DIGDOH HILLS, NAGPUR.

Abstract: Tuberculous neck abscess is commonly described as cold abscess. It is not very common, though the incidence of pulmonary and extrapulmonary tuberculosis is very high in the developing countries.

A 56 years old man, presented with a painless, slowly growing smooth swelling over the lower part of neck on the left side with a duration of about 8 months. He had a history of similar swelling for which incision and drainage was done in a medical college, but the swelling recurred within 2 months. This patient had no focus of infection anywhere in the ENT field and also no history & no evidence of tuberculosis on clinical examination.

The computerised tomography scan revealed a homogenous opacity suggestive of an abscess involving the deep part of the neck below the superficial neck muscles. There was no evidence of compression of the upper aero-digestive tract. The abscess was drained under general anaesthesia. 50cc of non-foul smelling pus was drained and sent for Zeil Nelson staining and AFB culture. The report was suggestive of tuberculosis.

KEY WORDS- Tuberculous cold abscess, Pulmonary and extrapulmonary tuberculosis, Antituberculous chemotherapy (AKT).

Introduction:

Though the incidence of pulmonary and extrapulmonary tuberculosis is very high in our country, the incidence of cold abscess involving the neck or retropharyngeal space is uncommon due to availability of good quality anti-tuberculous drugs.

A tuberculous cold abscess may arise either due to caseation of tuberculous lymphadenitis or a cold abscess, when presenting in the neck of an adult patient should be differentiated from malignant masses and other inflammatory conditions.

A tuberculous cold abscess should be treated by aspiration or incision and drainage depending on the size, followed by a complete course of antituberculous chemotherapy.

Case Report:

A 56 years old man presented with a painless, slowly growing, smooth swelling over the lower part of neck on the left side, above the clavicle with a duration of about 8 months. He had a history of similar swelling in the past for which incision and drainage was done in a medical college, but the swelling recurred within two months. Patient had no history of fever, dysphagia or dyspnea. He had no past history of any medical illness.

Clinical examination revealed smooth, non tender, non fluctuating swelling with well defined margin, situated in the deep part of the neck in the anterior triangle, above the medial half of clavicle (Fig 1). There was no internal swelling, no lymphadenopathy and no focus of infection in the ENT field.

His routine investigation were within normal limits except positive Mantoux test and reactive TB IgG. His chest X-ray showed no evidence of pulmonary tuberculosis. The computerised tomography scan revealed a homogenous opacity suggesting an abscess in the deep part of the neck below the superficial neck muscles. There was no evidence of compression of the upper aero-digestive tract (Fig 2).

The abscess was drained under general anaesthesia. 50cc nonfoulsmelling yellowish pus was drained (Fig 3). The post operative period was uneventful. With the suspicion of tuberculosis, the pus was sent for Zeil Nelson staining and AFB culture. After receiving a positive culture report, the patient was put on anti-tubercular chemotherapy.

Discussion:

The differential diagnosis of neck swelling in an adult patient ranges from a malignant to benign mass and from non
specific inflammation to cervical tuberculosis. These differential diagnosis largely depend upon the age of the patient, location of mass in the neck and associated or co-existing disease process\(^3\).

The common tuberculous neck swellings are generally due to tuberculous lymphadenitis presenting with persistent lymph node enlargement, not responding to antibiotics. Tuberculous abscess is called cold abscess, as it shows no signs of inflammation. Other conditions which can cause cold abscess in neck are Actinomycosis, Leprosy and Gumma degeneration\(^2\).

Tuberculous cold abscess can arise either due to caseation of tuberculous lymph node or due to tuberculosis of cervical spine. An untreated abscess may burst open forming a discharging sinus in the neck\(^4\). The cold abscess resulting due to tuberculous cervical spine can rupture and spread into retropharyngeal space\(^5\) and even into superior mediastinum. If the size of this abscess is large enough, it may cause compression of the aero-digestive tract resulting into symptoms like dysphagia and airway obstruction.

Apart from the common presentation, various other case reports like a 25 years old man with cold abscess involving retropharyngeal, retroperitoneal and mediastinal involvement\(^6\); a 50 years old lady with extensive tuberculous osteodestruction of second cervical vertebral body\(^7\) and a patient with cervico-mediastinal cold abscess presenting with a swelling in the thyroid region\(^8\), have been described in literature. All these patients responded dramatically to the incision and drainage of the abscess, followed by antitubercular chemotherapy. But a patient may present without any evidence of tuberculosis like in our case, so a high index of suspicion along with proper investigations, diagnosis and treatment can significantly reduce the morbidity and mortality, as tuberculosis today is a completely curable disease.

References:


Corresponding Author:

**DR. VIVEK V. HARKARE.**
"MAHUR-GUD"; 20, SAWARKARNAGAR.
KHAMLA ROAD; NAGPUR-440015.
Ph.No.: (0712) - 2232365

---

Prof. Abhoya Kumar Kar has donated Rs. 20,000/- to AOI, Orissa to be kept as Fixed Deposit.

Out of the interest, 2 Awards are to be given in Annual Conference.

1. **Suryamani Kar** P.G. Quiz Award.
2. **Jemamani Kar** Free Paper Award.
Olfactory Neuroblastoma: A Rare Nasal Tumour
A short Case Report

Bhawana Pant
Senior Resident

D.K Isser
Prof & Head of the Dept.

H.C.K Joshi
Asstant Professor

Dept. of Otorhinolaryngology
Dr. Sushila Tiwari Memorial Hospital & Uttarakhand Forest Hospital Trust Medical college, Haldwani, Nainital.

ABSTRACT: Olfactory neuroblastoma, a rare nasal tumour usually found in upper part of nasal cavity, arises from olfactory epithelium and usually extend into anterior intracranial fossa. Here we report a case of 17 years old female, who presented with nasal obstruction and epistaxis, biopsy caused pathological dilemma and final diagnosis could be settled by immunohistochemistry.

Key Words: Nasal, olfactory neuroblastoma

Introduction:
Olfactory neuroblastomas are relatively uncommon tumors that originate from the olfactory epithelium in the upper nasal cavity in the region of the cribriform plate. Olfactory neuroblastoma account for between 1 to 5% of malignant nasal cavity neoplasms\(^1\) and occur in all age groups with bimodal peaks in the second and fifth decades.\(^2\) Common presenting symptoms include nasal obstruction and epistaxis. Facial pain, diplopia, proptosis and anosmia are less frequently reported.\(^3\) Olfactory neuroblastomas, first described by Berger and Richard in 1924\(^3\), arise from the olfactory epithelium of the nasal cavity in the region of the cribriform plate. The tumor cells are a relatively homogeneous population of small round cells set in a variable fibrillary stroma and form part of the differential diagnosis of round-cell lesions of the head and neck region.\(^4\) The presence of a fibrillary intercellular background in conjunction with the presence of Homer-Wright rosettes in an upper nasal neoplasm is considered to be diagnostic of olfactory neuroblastomas\(^1\).

Case Report:
A 17 year old female presented with nasal obstruction on right side along with bleeding and headache from last one year. There was history of nasal mass surgery in the past by some local practitioner, but biopsy of the excised mass was not done. There was no eye symptom. Examination of the nose revealed reddish brown polypoidal mass which was arising from lateral wall of nasal cavity on right side and occluding the view of inferior turbinate(Fig.1). There was smooth bulge in floor of left nasal cavity in the anterior part. Mass was insensitive to touch and did not bleed on probing. Posterior rhinoscopy revealed a globular mass in the nasopharynx. Oral cavity showed smooth bulge on hard palate bilaterally in the anterior part. There was no cervical lymphadenopathy. Rest of the examination was normal. Patient was routinely investigated. CECT scan of nose & PNS revealed a large expansile polypoidal mass with heterogenous enhancement in both nostrils with partial erosion of nasal septum, alveolar margin of maxilla & anterior portion of hard palate and extending in to the oral cavity & posteriorly in to the nasopharynx. There was opacification of right frontal, maxillary, sphenoid sinus and ethmoidal cells, osteomeatal complex and sphenethmoidal recess by the mass. Frozen section biopsy showed malignant round cells. Mass was excised under general anesthesia using transnasal approach. Mass was arising from lateral wall of right nasal cavity at the level of middle turbinate, going posteriorly to nasopharynx, eroding the anterior part of septum, going to left side of nasal cavity, eroding the palate bilaterally producing a smooth bulge.

Tumour was excised completely and sent for histopathological examination, which suggested that it could be either olfactory neuroblastoma or embryonal rhabdomyosrcoma. Immunohistochemistry was done to reach final diagnosis, which came out to be olfactory neuroblastoma, as tumour showed positivity for neuron specific enolase and negativity for smooth muscle actin. Patient was sent for radiotherapy.

Discussion:
Olfactory neuroblastoma or esthesioneuroblastoma is a malignant neuro ectodermal tumor assumed to originate from olfactory receptor cells high in the olfactory plate or
in dystopic areas. Most commonly, the tumor is situated in the nasal cavity beyond the middle concha and its extraolfactory localization is seldom found. The tumor growth is usually slow and over time, infiltration of adjacent structures takes place in the direction of the paranasal sinuses, oro-nasopharynx, the base of skull and even the cerebral frontal lobes. Metastatic spread is locally to cervical lymph nodes, distally to lungs & bones and through leptomeninges into the brain. A variety of other neoplastic lesions occur in the same anatomical region as olfactory neuroblastoma. Tumors such as neuroendocrine tumours, sinonasal lymphoma, sinonasal undifferentiated carcinoma, embryonal rhabdomyosarcoma and pituitary adenoma can all present with similar clinical, histological and radiological features as olfactory neuroblastoma. The pathological differentiation of these tumors is a difficult task, even for an experienced pathologist, requiring immunohistochemical stains, pannel - neuron specific enolase, chromogranin, synaptophysin, smooth muscle actin, neurofilament protein, leukocyte common antigen, epithelial membrane antigen and occasionally electron microscopy. The pathological grade of the tumor was found to be the most significant prognostic factor, with an 80% 5-year survival rate and a 40% 5-year survival rate, for low-grade and high-grade tumors, respectively. The prognosis and therapeutic modalities for these different tumors are variable and physicians treating neoplasms arising from the paranasal sinus region must be familiar with the diagnostic tools available to obtain a correct diagnosis before initiating therapy.

Surgical treatment alone is effective in cases of low-grade tumor, if tumor-free margins can be obtained. The use of adjuvant radiotherapy is supported for low-grade tumors, when the margins are close, for residual or recurrent disease and for all high-grade tumors.

**Conclusion:**

Malignant tumours of nose and paranasal sinuses are rare entity and their presentation are variable. So surgeons must be aware of all possibilities and definitive diagnosis of tumour should be made, before starting the treatment. These tumours are often misdiagnosed, as most of them share common pathological features, so an experienced pathologist is also required to reach a conclusion. A spectrum of immunohistochemical stains are available to help distinguish the often otherwise similar pathological features that these tumors share. Furthermore, in some instances electron microscopy may be necessary to establish the diagnosis.

**References:**


**Dr. Bhawana Pant**
C/o. Dr Pushpa Pant
GGIC Haldwani, Nainital, Uttarakhand. Ph:9897201155
E mail : gaursanjay75@indiatimes.com
Intrduction:

Originally described as a calcifying epithelioma by Milharbe and Chelantis¹ in their original description in 1880, it is a benign neoplasm of hair follicle matrix. Affected individuals are mainly in the age group of 8 to 13 years and more prevalence is found in females. It is firm, solitary, slow growing and painless lesion of dermis, which most of the times extend to subcutaneous tissue. It often develops into capsulated form, size ranging from 0.5 to 5 cms.

This is the case report of Pilomatrixoma of left parotid region in a 13 year old female, who presented with a mass in the parotid region. Fine needle aspiration cytology and radiological investigations confirmed the diagnosis of Pilomatrixoma. Complete excision of the tumor was done through superficial parotidectomy incision. Since the overlying skin was also involved, it was also excised in continuity with the tumor mass. Facial tissue defect was corrected with free microvascular flap from thigh, which was done by the plastic surgeons.

Histopathology of the mass confirmed the diagnosis as Pilomatrixoma.

Discussion:

Pilomatrixoma most commonly occurs in head and neck region; between 56 to 72% of all cases appear in this area especially the cheek, preauricular area, eyelids, forehead, scalp and lateral & posterior neck. The next most common site is the upper extremities. Together, these two sites host the vast majority of these tumors.

Most reported cases have occurred in white persons. Most studies report a slight preponderance in females. In one retrospective study of 209 cases, the female to male ratio was 1.5:1.² Most reported cases have occurred in children. Lesions are often discovered in the first 2 years of life; however, in a recent 1998 retrospective study of 209 cases, investigators found the age of presentation showed a bimodal pattern, with the first peak being 5-15 years and the second being 50-65 years.

Most lesions measure 0.5-3 cms, but rarely, giant lesions up to 15 cms are reported. Patients usually have a single, firm, stony hard nodule. Lesions are usually of the color of the normal skin, but reddish-purple lesions have been observed (probably resulting from hemorrhage). Stretching of the overlying skin can give the lesion a multifaceted, angulated appearance known as the "tent sign," likely due to calcification in the lesion.

It is difficult to diagnose pilomatrixoma. The differential diagnosis include dermoid & inclusion cysts, preauricular sinuses, hemangiomas & malignant soft-tissue tumors. But presence of such a nodule on the head, neck or upper

Abstract: Pilomatrixoma is a benign adnexal tumor with differentiation toward hair cells. It usually manifests as a solitary, asymptomatic, firm nodule. It has long been considered a rare tumor, but it may be more common than previously realized. It is more common in children, but occurrence in adults is increasingly being recognized. Recommended treatment is surgical excision. Pilomatrix carcinoma is a rare condition.

Key words: Pilomatrixoma, Parotid gland.
extremity, especially in a younger patient, should raise the clinician's suspicion of pilomatrixoma. Diagnosis is always confirmed with histopathological examination. Fine-needle aspiration of these masses can yield, cytologic results that are consistent with pilomatrixoma. It is rare to have malignant pilomatrixoma, but some case have been reported. This exceedingly rare malignant variant of pilomatrixoma is histologically characterized by prominent nucleoli, focal areas of necrosis and multiple mitotic figures. The lesion is usually found in the lower dermis and subcutaneous fat. It is sharply demarcated and is usually surrounded by a connective tissue capsule. If irregularly shaped islands of epithelial cells are seen, they can be recognized as either basophilic cells or shadow cells. Basophilic cells are usually arranged either on one side or along the periphery of the tumor islands. The shadow cells have a central unstained area, corresponding to the lost nucleus. As the lesion ages, the number of basophilic cells decreases. Calcium deposits are seen in 75% of lesions with von Kossa staining. Evidence of vascular invasion and perineural or perichondrial infiltration support a diagnosis of a more aggressive type of pilomatrixoma, that has the potential for malignant degeneration.

Various imaging methods for evaluating pilomatrixoma have been reported. Plain radiographs of suspicious lesions have limited utility, but they can detect foci of calcification. Preoperative CT scan was done in our patient which was suggestive of pilomatrixoma. Computed tomography or magnetic resonance imaging might be considered for those patients, who have larger or more unusual tumors. Ultrasonography has been described as a relatively fast and noninvasive investigative technique for estimating the depth of larger masses. The clinically superficial location of most of these tumors makes routine radiographic evaluation unnecessary. An accurate histopathology-logic evaluation is the most important tool for confirming the diagnosis.

Treatment consists of surgical excision. Recurrences are rare, but when they do occur, the physician should suspect a malignant pilomatrixoma variant. The surgical approach can be modified depending on the site of involvement, to ensure the total removal of the lesion without injury to vital neural or vascular structures.

In our case modified Blair incision was used to remove the preauricular tumor. The preoperative assessments were consistent with small, superficial neoplasms, that were easily removed and did not require facial nerve dissection. Complete surgical excision of the tumor is the recommended treatment. In our case, as it was large mass, we had to sacrifice the skin over the mass, which resulted into skin and tissue defect over face. It was corrected by taking free microvascular flap from thigh, which was done by plastic surgeons.

References:

Address correspondence & reprint requests- 
Dr. Avanindra Kumar  
H.No-2, Magistrate Colony,  
Near Aparajita Apartment, Khajpura  
Patna, India-800014  
Phone-*919835432290  
Email: dr.avanindra@gmail.com
Schwannoma of Sinonasal Region with Intracranial Extension and Blindness - A Case Report

K. C. Mallik  
Asst. Professor (Cuttack)

S. N. Panda  
Professor & HOD (Cuttack)

Souvagiini Acharya  
Asst. Professor

Satyajit Mishra  
Lecturer

Santosh Swain  
Resident

Dept. of ENT and Head & Neck Surgery, V. S. S. Medical College, Burla, Sambalpur, Orissa.

Abstract:
Schwannoma of paranasal sinuses are very rare. And they affect most of the cranial nerves except optic and olfactory nerves. In nose and PNS, these account for less than 4% of all head and neck Schwannomas. Those with intracranial extension, are even rarer. Here we present a case of Schwannoma in a patient, who had intracranial extension, who was diagnosed and treated in our hospital.

Key Words:
Schwannoma, paranasal sinuses, intracranial extension, blindness.

Introduction:
Schwannoma or Neurinoma or Neurilemmoma is a slow growing encapsulated benign tumor arising from the Schwann cells of axon sheath of the peripheral motor & sensory cranial nerves, except optic and olfactory nerves. About 25-45% of all Schwannoma arise in the head and neck region.

The most common site of origin of Schwannoma is the parapharyngeal space, where they arise from cervical sympathetic and vagus nerves. The rarer sites are oral cavity, nasal cavity and paranasal sinuses. In nose and PNS these account for less than 4% of all head and neck Schwannomas. These tend to affect more females between 3rd to 6th decades of life than males.

Though it is a rare benign tumor and presents as a simple mucosal polyp, the Schwannoma of paranasal sinuses can be a devastating disease. Very rarely they show malignant transformation. Total enucleation of the tumor most often cures the disease without recurrence.

Case Report:
A 48 years old female patient from southern Jharkhand came to E.N.T. O.P.D. of V. S. S. Medical College Hospital, Burla, Sambalpur with chief clinical symptoms of recurrent left nasal obstruction for two years, a polypoidal bleeding nasal mass in the left nostril for last 4 months and history of gradual decrease in vision in left eye for the last 2 months, leading to complete loss of vision at the time of presentation. The patient was apparently alright two years back. To start with, she gradually started feeling nasal obstruction in the left nostril with mild earache and pain over left forehead and left nostril later on. During this period she had no nasal bleeding, orbital swelling, nausea, vomiting or head reeling. One year back, she had undergone an operation in her left nostril somewhere else without any relief from nasal obstruction, but she started discharging clear fluid from left nostril after a few days of operation, which was not blood stained. The histopathological study of the removed mass was reported to be a simple mucosal polyp. The watery discharge stopped six months back. But she developed complete nasal obstruction in left nostril and gradual obstruction on right nostril. She had a few bouts of bleeding per left nostril during this period. She gradually lost vision in left eye leading to complete blindness along with swelling of left eye, which compelled her to come to this hospital. During her hospital stay, she had not complained of headache, head reeling or nausea.

The patient had no history of tuberculosis, diabetes mellitus, hypertension or any other chronic debilitating disease.

On clinical examination, patient was well oriented with emaciated body built, without any local or systemic lymphadenopathy or thyromegaly, pedal edema, clubbing, cyanosis, icterus, etc. Respiratory and cardiovascular system examination revealed no abnormality. She had hyponasal voice and moderate degree of pallor.

On local examination of face, nose and eye, there was widening of nasal bridge. Cold spatula test revealed bilateral nasal obstruction. On anterior rhinoscopy, there was a large polypoidal smooth surfaced, pinkish coloured soft to firm mass of (3 x 3cms) protruding from left nostril, which bled on probing and its origin could not be traced out. The septum was pushed towards lateral wall of right nostril completely obstructing it. Mild degree of tenderness was elicited over left ethmoidal and maxillary sinuses. The soft and hard palate were bulged forward and downward on left side. Posterior rhinoscopy showed a smooth surfaced mass, seen at left choana and nasopharynx, which on digital palpation was felt smooth, non tender, globular and soft. There was...
no bleeding on touch.

On ophthalmologic examination, there was proptosis of left eye ball to outward and upward direction; PL Negative and PR Negative in all quadrants of visual fields & there was no papillary light response. On ophthalmoscopy, there was advanced optic atrophy in left eye. Right eye was normal in all respects.

Otological examination revealed features of catarrhal otitis media in left side.

Routine hematological study revealed, increased ESR and decreased hemoglobin levels. CT scan of skull and PNS on axial and coronal plain with & without contrast study, showed soft tissue density in the left maxillary antrum, eroding its medial and superomedial walls, with involvement of ethmoid & sphenoid sinuses. There was erosion of bones of skull base at anterior & middle cranial fossae and cribriform plate.

The patient was subjected to punch biopsy of mass for histopathological diagnosis for further management. Under local anaesthesia with application of 10% lignocaine spray and Pentazocin & Promethazine injection, the mass was probed with a swab stick. During probing with minimal pressure, the mass ruptured with release of a gush of watery and blood tinged straw colored fluid from it, leaving behind a shrunken mass with very minimal amount of bleeding.

The nasal Schwannoma differ from that of other areas, in respect of its lack of encapsulation. Small Schwannomas are solitary solid, slow growing, circumscribed and appear pink to yellow to pearly gray in colour and initially appear symptomless, but become symptomatic when they grow in sizes leading to pressure necrosis of surrounding structures. Sometimes large tumors degenerate and necrose.

Histopathologically Schwannomas are featured as high cellularity zone of compact and twisted bundles of spindle cells with elongated nuclei in palisading pattern and Verocay body.

**Discussion:**

Schwannoma or Neurilemmoma is benign peripheral nerve sheath tumors, first described by Verocay in 1910, who named these tumor, as Neurinomas. Stout (1935) coined the term Schwannoma, Neurilemmoma for the same disease, who believed that, these tumors originate from the Schwann cells. Schwannomas arise from any nerve covered with a Schwann cell sheath. Hence all peripheral and cranial nerves except optic & olfactory nerves can develop Schwannoma. Vestibular division of Vestibulocochlear N. followed by Trigeminal & Vagus nerves are the most common nerves to be involved. Extracranially, about 25 - 45% of all Schwannomas are located in head and neck region. The lateral cervical region (parapharyngeal space) and the mouth are the most common sites. However Schwannomas occur rarely in the sinonasal tract, even rarer with intracranial extension. Schwannomas of nasal cavity and paranasal sinuses account for less than 4% of the benign peripheral nerve sheath tumors of the head and neck. In head and neck region, 2 - 10% of Schwannomas show malignant changes emphasizing their excision. Kragh (1960) reported five cases of nasal and antral Schwannoma, while Udwadia (1987) reported one case of nasal cavity Schwannoma, Younis (1991) and Ross et al (1988) also reported Schwannoma of nose and PNS. Hanada et al (1997) and Gatscher et al (1998) reported intracranial extension.

The nasal Schwannoma differ from that of other areas, in respect of its lack of encapsulation. Small Schwannomas are solitary solid, slow growing, circumscribed and appear pink to yellow to pearly gray in colour and initially appear symptomless, but become symptomatic when they grow in sizes leading to pressure necrosis of surrounding structures. Sometimes large tumors degenerate and necrose.

Histopathologically Schwannomas are featured as high cellularity zone of compact and twisted bundles of spindle cells with elongated nuclei in palisading pattern and Verocay body.
cells with elongated nuclei in pallisading pattern and alternating areas of acellular fine cytoplasmic fibrils and eosinophilic masses called Verrocay bodies. Antony-Type A are a low cellularity zones of irregularly arranged loose meshes of elongated stellate cells and fibers with areas of edema and cystic degeneration and blood vessels, show hyaline thickening around which there are pseudopallisading of tumor nuclei. There are no nerve fibres present in the Schwannoma body.

Preoperative diagnosis is important, though clinically Schwannoma in nose and PNS may simulate as a simple mucosal polyp in early stage of disease. Biopsy for histopathological study are necessary for definite diagnosis, whereas electron microscopy, immunohistochemistry (S-100-Leu-7) are necessary to classify the types of Schwannomas. CT scanning and MRI are necessary for evaluating the extension of the disease, status of surrounding structures, accessibility for the surgery and for preoperative planning to prevent post operatives complications.

Simple surgical enucleation will cure the disease in many cases, though in our case the patient had recurrence for 2nd time due to incomplete removal and the tumor underwent degeneration.

Conclusion:

Schwannoma of nose and paranasal sinuses are rare tumor which may mimic clinically as simple mucosal polyp in early stage. In late stage of the disease due to degenerations and hemorrhagic changes, the diagnosis may be very misleading even on histopathological study. CT scanning and biopsy for histopathological study are mandatory for presurgical evaluation and diagnosis. Recurrence can occur with incomplete removal of the mass. Hence meticulous resection is necessary.

References:


Address for correspondence & reprint:
Dr. K. C. Mallik
Asst. Professor ENT & HNS
S.C.B. Medical College
Cuttack-753007, Orissa
Introduction:

Malignant tumors of the external auditory canal are rare forming less than 2% of head and neck tumors. Adenoid cystic carcinomas (ACC) commonly arise in minor salivary glands, constituting 3-10% of salivary gland tumors. A histologically similar tumor may be found at other sites including the external auditory canal. In some cases the tumor unquestionably has arisen in the adjacent parotid gland with extension to the external auditory canal. The lesion may also originate within the external auditory canal probably from the ceruminous glands. The resected specimen in these cases shows the neoplasm to be confined to the parotid & the external auditory canal and the site of origin of malignancy cannot be determined.

Irrespective of the site of origin ACC typically grows slowly, but spreads by local extension. This tumor is characterized by multiple local recurrences, often over a period of years, despite intensive therapy with surgery and / or radiotherapy.

Case Report:

A thirty seven year old male patient presented in the ENT department with history of left sided otalgia and ear discharge of five years duration. The pain was throbbing in nature and occasionally radiated to the ipsilateral side of face. The ear discharge was scanty, blood stained and intermittent. He was being treated for otomycosis and furunclosis at different centers. On examination, a smooth tender swelling was noted in the posterior-inferior part of the external auditory canal at the bony cartilaginous junction. There was fullness of the post auricular groove. The complete blood picture and blood sugar levels were normal. Culture of the ear swab grew Pseudomonas. The patient was started on antibiotics based on sensitivity. He was discharged after the pain had reduced.

The patient returned after one year with persistent otalgia. The swelling in the external auditory canal had increased in size. A CT scan with contrast was done. It showed a heterogeneously enhancing lesion in and around left external auditory canal. There was no obvious destruction of the bone of the external auditory canal. The mass was seen to infiltrate the superior portion of the left parotid gland and there was erosion of the mastoid segment of the left facial canal. The middle ear and inner ear were normal (Figure 3). Pure tone audiogram showed a mild conductive hearing loss.

A biopsy from the lesion was done under local anaesthesia. It was reported as adenoid cystic carcinoma, however, a firm distinction from basal cell carcinoma could not be made out, without assessing tumor borders. A left lateral temporal bone resection with superficial parotidectomy was done under general anaesthesia. The middle ear and mastoid were normal. On histopathological examination, the tumor showed monophasic population of small cells with scanty cytoplasm, round nuclei arranged in nests & in...
carcinoma of the salivary glands is rare. They are histologically similar to adenoid cystic carcinoma. External auditory canal is extremely painful. Nerve palsies, hearing loss, tinnitus, vertigo, facial paresis or other cranial symptoms include otorrhoea, which is often blood stained. The pain is probably related to neural invasion. Other symptoms include otorhoea, which is often blood stained, hearing loss, tinnitus, vertigo, facial paresis or other cranial nerve palsies. There may be history of drainage of a cyst or a "pimple". The tumor may present as chronic facial pain or neuropathy with varying treatment, leading to a delay in diagnosis. Due to the involvement of the temporomandibular joint (TMJ), the presentation may mimic TMJ disorders. The pinna may be distorted by the tumor in some cases. In our case, there was fullness in the post auricular sulcus with slight displacement of the pinna anteriorly. There was tenderness in the region of the post auricular sulcus. The nature of these lesions is not clear. It has been postulated that, obstruction of the ceruminous glands by the tumor can lead to secondary infection. Such an occurrence can explain the symptomatic relief and decrease in the size of the furuncle by 25% after treatment with antibiotics & medicated ear packing.

The pathologist can usually make the diagnosis of adenoid cystic carcinoma without difficulty from a resected specimen. A small incisional biopsy may lead to problems in diagnosis. Cytologically, adenoid cystic carcinoma has to be differentiated from basal cell carcinoma, cutaneous cylindroma and even pleomorphic adenoma. Adenoid cystic carcinoma may produce various patterns, including cribriform structures, tubules and solid nests. The tubular predominant tumors have the best prognosis, while the solid predominant neoplasm, the worst.

In our case, the incisional biopsy was reported as adenoid cystic carcinoma. However, a firm distinction from basal cell carcinoma cannot be made without assessing tumor borders. In basal cell carcinoma, the tumor cells tend to have spindle shaped nuclei and pallisading of cells (a prominent feature), while in adenoid cystic carcinoma the tumor cells tend to have round nuclei and peripheral pallisading is not a prominent feature.

Most patients have a prolonged clinical course characterized by multiple local recurrences and distant metastasis. Majority of local recurrences occur within the first two years of treatment. Factors responsible for local recurrence are, tumor on or close to the resected margin, perineural infiltration, extension into bone and involvement of the parotid gland. Tumors arising in the sweat glands in this location seem to be more aggressive than the behaviour of histologically identical tumors arising in sweat glands elsewhere in the head and neck.

The clinical and radiological findings often underestimate the exact extent of disease. Due to the insidious nature of this tumor, tissues involved microscopically may have a normal gross appearance. Hence there is importance of frozen section control during surgery. Radical resection is necessary at the time of primary surgery for adenoid cystic carcinoma. This should include the parotid gland.

The role of post operative radiotherapy when margins are positive is not well defined. However it may delay local recurrences. In unresectable cases radiotherapy provides palliation of pain and bleeding. The role of chemotherapy is not well established.

Discussion:

Carcinomas of the external auditory canal are usually squamous cell carcinoma or basal cell carcinoma. Adenoid cystic carcinoma of external auditory canal is extremely rare. They are histologically similar to adenoid cystic carcinoma of the salivary glands. Since the occurrence of adenoid cystic carcinoma in external auditory canal is rare; most reports in literature consist of only one or two cases. Some of the larger series of adenoid cystic carcinoma of external auditory canal have been reported by Wetli et al, Pulec et al and Perzin et al.

The origin of this tumor is also debatable. The site of origin may be ceruminous glands in the skin of the external auditory canal, from ectopic salivary tissue or from the adjacent parotid gland with secondary involvement of external auditory canal. Our case was considered as a primary from the external auditory canal, because bulk of the tumor was seen in the posterior-inferior part of the external auditory canal with minimal infiltration into parotid as shown by CT scan and intra operative findings.

Recurrent or persistent otalgia is the commonest symptom. The pain is probably related to neural invasion. Other symptoms include otorhoea, which is often blood stained, hearing loss, tinnitus, vertigo, facial paresis or other cranial nerve palsies. There may be history of drainage of a cyst or a "pimple". The tumor may present as chronic facial pain or neuropathy with varying treatment, leading to a delay in diagnosis. Due to the involvement of the temporomandibular joint (TMJ), the presentation may mimic TMJ disorders. The pinna may be distorted by the tumor in some cases. In our case, there was fullness in the post auricular sulcus with slight displacement of the pinna anteriorly. There was tenderness in the region of the post auricular sulcus. The nature of these lesions is not clear. It has been postulated that, obstruction of the ceruminous glands by the tumor can lead to secondary infection. Such an occurrence can explain the symptomatic relief and decrease in the size of the furuncle by 25% after treatment with antibiotics & medicated ear packing.

The pathologist can usually make the diagnosis of adenoid cystic carcinoma without difficulty from a resected specimen. A small incisional biopsy may lead to problems in diagnosis. Cytologically, adenoid cystic carcinoma has to be differentiated from basal cell carcinoma, cutaneous cylindroma and even pleomorphic adenoma. Adenoid cystic carcinoma may produce various patterns, including cribriform structures, tubules and solid nests. The tubular predominant tumors have the best prognosis, while the solid predominant neoplasm, the worst.

In our case, the incisional biopsy was reported as adenoid cystic carcinoma. However, a firm distinction from basal cell carcinoma cannot be made without assessing tumor borders. In basal cell carcinoma, the tumor cells tend to have spindle shaped nuclei and pallisading of cells (a prominent feature), while in adenoid cystic carcinoma the tumor cells tend to have round nuclei and peripheral pallisading is not a prominent feature.

Most patients have a prolonged clinical course characterized by multiple local recurrences and distant metastasis. Majority of local recurrences occur within the first two years of treatment. Factors responsible for local recurrence are, tumor on or close to the resected margin, perineural infiltration, extension into bone and involvement of the parotid gland. Tumors arising in the sweat glands in this location seem to be more aggressive than the behaviour of histologically identical tumors arising in sweat glands elsewhere in the head and neck.

The clinical and radiological findings often underestimate the exact extent of disease. Due to the insidious nature of this tumor, tissues involved microscopically may have a normal gross appearance. Hence there is importance of frozen section control during surgery. Radical resection is necessary at the time of primary surgery for adenoid cystic carcinoma. This should include the parotid gland.

The role of post operative radiotherapy when margins are positive is not well defined. However it may delay local recurrences. In unresectable cases radiotherapy provides palliation of pain and bleeding. The role of chemotherapy is not well established.

Conclusion:

Adenoid cystic carcinoma of the external auditory canal is a very rare tumor. The prolonged clinical course may mimic a chronic benign disease of the external ear. A high index of suspicion should be entertained when encountering any painful condition of the external auditory canal with limited improvement with conventional treatment. Often biopsy will clinch the diagnosis. Radical excision with tumor free margins, confirmed on table by frozen section remains the preferred curative treatment for adenoid cystic carcinoma of the external auditory canal.

References:

1) Perzin KH, Gullane P, Conley J; Adenoid Cystic Carcinoma involving External Auditory Canal; Cancer
2) Wetli V, Pardo V, Millard M, Geston K; Tumors of Ceruminous Glands; Cancer 1972; 29; 1169-1178.

3) Pulec JL, Parkhill EM, Devine KD; Adenoid Cystic Carcinoma(Cylindroma) of the external auditory canal; Trans Am Acad Ophthalmol Otolaryngol 1963; 67; 673-694.


7) Arora MML, Mehra YN, Bhattacharya TK,Adenoid cystic carcinoma of the external auditory canal; J Laryngol Otol; 1973; 87; 315-319.

8) Treasure T; External auditory canal carcinoma involving the temporomandibular joint: two cases presenting as temporomandibular joint disorders; J Oral Maxillofac Surg; 2002: 60, 465 - 469

**Corresponding Author:**

Dr. Dipak Ranjan Nayak  
Professor and Head of Dept. of ENT and Head Neck Surgery, Kasturba Medical College, Manipal-576104  
E mail: drnent@rediffmail.com  
Phone: (0820) 2922143 (O)  
Mobile: 9880195957
Orissa Journal of Otolaryngology and Head & Neck Surgery

43

Introduction:

A foreign body in the tracheobronchial tree produces varied pathological conditions and clinical features in the respiratory tract depending on the size, shape, character, duration and relative area of the airway involved by its invasion. Collapse, consolidation and obstructive emphysema do occur frequently, but pneumothorax secondary to a bronchial foreign body is very rare.

Case Report:

A 55 years male was admitted in Medicine Ward with a history of cough with expectoration, intermittent fever and difficulty in breathing since 2.5 months and severe breathlessness in supine position, which used to get partially relieved in sitting position since 10 days. There was no prior history of foreign body inhalation. He was a chronic bidi smoker and occasional alcoholic. On examination, he had respiratory distress at rest, with pulse 100 / min and temperature 100°F. On auscultation of the chest, air entry was reduced on right side with harsh, tubular and bronchial breathing in right middle and lower lobe region. An X-ray chest was taken immediately which showed hydropneumothorax with collapse of middle and lower lobe (Figure 1).

A catheter was introduced immediately into the pleural cavity to relieve his hydro-pneumothorax and about 2.5 litre of pus was drained and thereafter water seal drain was maintained. I.V. ceftriaxone, Inj. Amikacin, Inj. Aminophylline and oxygen was started. Next day in 24 hours, about 2 litres more of pus was drained out. Pus was sent for culture and sensitivity, which was negative for tuberculous bacilli, showed staphylococcus, sensitive to Azithromycin, Coamoxyclav 1 gm BD. Azithromycin 500mg OD was added (as per culture & sensitivity report). With change of treatment, drain was reduced and it was removed after 5 days.

Repeat bronchoscopy was performed after 7 days and whole foreign body was removed easily, which was a long piece of bone measuring 3 cm X 1.5 cm X 0.5 cm (Figure 3). There was absolutely no congestion or edema at the bronchus at this time and foreign body was literally picked up without effort. The air entry improved. X-ray chest was repeated on 4th day. It showed normal lung shadow on both sides. On extracting history, after showing his wife the foreign body, she gave history of consumption of excessive alcohol followed by eating mutton on one occasion by the patient about 5 months back. She still could not co-relate the occasion with the start of patients symptoms. Patient was discharged on 4th day after a dramatic improvement in his condition.

Discussion:

In this case after diagnosing foreign body on CT scan, there was still no history of foreign body inhalation on repeated enquiry. Secondly an unusually large size of bone went unnoticed in respiratory passage. Patient was asymptomatic for few weeks initially. It is known that, foreign body may...
be retained for a various length of time without symptoms leading to bronchiectasis and haemoptysis. After first bronchoscopy, in which it was very difficult to remove the foreign body, the procedure became very easy in second attempt, which may be due to oral pseudo-ephedrine, steroid nebulization and change of antibiotics. Pseudo-ephedrine is routinely used to relieve edema secondary to infection in nose & paranasal sinuses. However it is not conventionally used in bronchial infections. Change of antibiotics & pseudo-ephedrine dramatically decreased the pus in pleural cavity prompting removal of draining catheter, even before the removal of foreign body.

The clinical feature in a case of endobronchial foreign body depends on airway obstruction, it produces. A large foreign body will completely occlude the lumen leaving the lung airless and thus producing collapse. Organic foreign bodies such as bone or animal shells, after months or years produces changes which causes chills, fever, sweating, emaciation, clubbed fingers, incurved nails, cough, foul expectoration and haemoptysis, in fact all the symptoms of chronic pulmnote sepsis, abscess & bronchiectasis. These signs may suggest pulmonary tuberculosis, but bronchoscopically removed exudates shows no bacilli, hence there is call for exclusion of foreign body.

Any patient with symptoms of cough, wheezing and decreased air entry, even though chest X-ray appears normal, should be suspected of having an airway foreign body, whether or not aspiration is known to have occurred. Radio-opaque foreign body may be seen on plain X-ray of chest in only 9 % cases. Hence CT scan is better modality in these cases.

References:
Acute Myeloid Leukaemia M5B(AML-m5b) Presenting as Sudden onset Haemorrhagic Necrotising Tonsillitis and Dysphagia, A Rare Case.

K. K Samantray, Asst. Professor (ENT) D. Dora, Sr. Resident (ENT)
K. L. Purohit, Asst. Professor (Patho) A. Adhya, Asst. Professor (Patho)
P. Jena, Asst. Professor (O & G)

Kalinga Institute Of Medical Sciences, Bhubaneswar, Orissa

Abstract: We report a case of sudden onset throat pain and difficulty in deglutition, in a patient of 32 years female. The diagnosis was based on clinical features, haematological investigations and a bone marrow biopsy. The throat pain was due to haemorrhagic tonsillitis. A conservative management of dehydration and local causes was done and the case was referred to a clinical haematologist for proper management. It is a rare case of AML presenting as Haemorrhagic Tonsillitis.

Keywords: Acute myeloid leukaemia, Monoblast, Myeloblast, Promonocyte.

Introduction:
The incidence of acute myeloid leukaemia (AML) is approximately 2.3/ 100000 people / year and the sex adjusted incidence is higher in men than in women (2.9 versus 1.9). The incidence of AML increases with age (under 65 years the incidence is 1.3, whereas above 65 years it is 12.2).

Heredity, radiation, chemical & other occupational exposure and drugs have been implicated in the development of AML.

Case Report:
The patient named Banita Gauda, a 32 years hindu female was referred from department of O&G, KIMS for complain of pain in throat and difficulty in swallowing. While taking history, the patient revealed that, she was having secondary infertility after a girl child of 7 years for which she attended the O&G OPD since 5 days. Her menstrual history was normal.

On examination there was features of dehydration like dry mouth and tongue, parched and cracked lip. On examination of oral cavity, red and swollen gum, petechial haemorrhagic patches over mucosa of oral cavity was seen. Both side tonsils were swollen, reddened with sloughed out median surfaces. Reddened patches were found on posterior oropharyngeal wall. There was no history of epistaxis & lymphadenopathy.

On systemic examination, there was no hepatosplenomegaly. CNS, CVS & Chest were normal. Routine haematological report revealed, Hb -10gm%, TLC - 65000, BT - 2min, CT - 4min45sec.

PERIPHERAL SMEAR: Normocytic normochromic RBCs, Blast cell count 97%, Marked thrombocytopenia (platelet count 30,000/ cmm approx). Haemoparasite absent.

BONE MARROW FINDING: A bone marrow study done in department of pathology.


According to the pathological report the diagnosis was BONE MARROW PICTURE.
"ACUTE MONOCYTIC LEUKAEMIA" (AML-M5b). The patient was treated to combat dehydration. Throat and tonsils were taken care by steam inhalation, gargling & injectable antibiotic. A unit of freshly harvested platelet was infused to treat thrombocytopenia. Then the patient was referred to Medical Oncologist for further management.

Discussion:

Myeloid leukaemia are a heterogenous group of diseases characterised by infiltration of blood, bone marrow and other tissues by neoplastic cell of the haematopoietic system. These leukaemias comprise a spectrum of malignancies, that untreated, range from rapidly fatal to slow growing. Based on the untreated course, myeloid leukaemias have traditionally been designated as acute or chronic.

Hereditary, radiation, chemical & other occupational exposure and drugs have been implicated in the development of AML. No direct evidence suggests viral etiology.

Certain syndrome like Down, Klinfelter and Patau are associated with an increased incidence of AML. Inherited diseases with excessive chromatin fragility like Fanconi anemia, Bloom syndrome, Ataxia telangiectasia are also associated with AML.

Survivors of atomic bomb explosions in Japan had an increased incidence of myeloid leukaemia, that peaked 5 to 7 years after explosion.

Exposure to benzene, which is used as solvent in the chemical, plastic, rubber and pharmaceutical industries, is associated with increased incidence of AML.

Alkylating agents, chloramphenicol, phenylbutazone and less commonly chloroquine can result bone marrow failure which may evolve into AML.

FRENCH-AMERICAN-BRITISH (FAB) Classification---

M0: Minimally differentiated leukaemia.
M1: Myeloblastic leukaemia without maturation.
M2: Myeloblastic leukaemia with maturation.
M3: Hyper granular promyelocytic leukaemia.
M4: Eo:Variant:Increase in abnormal marrow eosinophils.
M5: Monocytic leukaemia.
M5a-Undifferentiated.
M5b-Differentiated.
M6: Erythroleukaemia (diGuglielmo s disease).
M7: Megakaryocytic leukaemia.

There exists a WHO classification also.

References:

1. Appelbaum FR et al: Bone marrow transplantation for chronic myelogenous leukaemia

ADDRESS FOR CORRESPONDENCE:

Dr. K.K. SAMANTARAY
Asst. Prof., Dept. of E.N.T & Head & Neck Surgery
KIMS & PBMH, Bhubaneswar-24, Orissa, India.
Introduction:
Rhinoscleroma is a chronic granulomatous condition that mainly affects the nasal cavity (95-100%), but lesions associated with rhinoscleroma may also affect the larynx (15-40%), nasopharynx (18-43%), oral cavity, trachea (12%), bronchi (2-7%), paranasal sinuses & soft tissues of lips. Although it is caused by "Klebsiella Pneumoniae" subspecies Rhinoscleromatis, "Klebsiella Pneumoniae" subspecies ozaenae was isolated from the pharynx of a woman with laryngeal scleroma. Rhinoscleroma is contracted by direct inhalation of droplets or contaminated material. The disease probably begins in areas of epithelial transition, such as the vestibule of nose, subglottic area of larynx & area between the nasopharynx and oropharynx. Cellular immunity is impaired in patients with Rhinoscleroma, with preservation of humoral immunity. Mucopolysaccharides in the bacterial capsule, probably contribute to the inhibition of phagocytosis.

Treatment consists of surgical excision combined with antibiotic therapy in patients with granulomatous disease and nasal or pharyngeal obstruction.

Case Report:
A 35yr old hindu male patient from low socioeconomic status presented to OPD with chief complaints of nasal obstruction, mouth breathing and difficulty in swallowing solid foods for 3 months, which was insidious and progressive in nature. Since 3 months he was also suffering from dyspnoea on exertion. The history of present illness dates back to 2yrs, when he developed nasal obstruction. He was operated for the same 6 months back with excision and dilatation of the nasal obstruction. There was no history of nasal discharge or bleeding, cough, haemoptysis, fever, pain or hoarseness of voice.

On examination, anterior rhinoscopy was normal. Posterior rhinoscopy could not be done. On oral examination, oral cavity was normal. Oropharynx revealed severe stenosis of the nasopharyngeal and oropharyngeal isthmus with only a small opening of size 3mm x 3mm between the oropharynx and nasopharynx. The oropharyngeal soft tissues were thick, fibrosed and oropharyngeal dimensions substantially reduced, which hindered the indirect laryngoscopic examination. Rest of the head and neck examination revealed no abnormality. Both ears showed moderate retraction of tympanic membrane. On routine investigation, haemogram showed mild neutrophilia and no anemia. X-ray PNS was normal and X-ray skull lateral view revealed decreased nasopharyngeal and oropharyngeal air colonm. CT & MRI could not be done because of the low socioeconomic status of the patient.

Tracheostomy of the patient was done through which general anesthesia was administered via endotracheal intubation. Excision of thick fibrosed tissue on the posterior oropharyngeal wall was done to surgically release the stenosis and uvulopalatopharyngoplasty was done to maintain the oro-nasopharyngeal continuity. Bits of tissue were sent for HP study. Nasogastric tube was given for feeding. At the end of operation, metal tracheostomy tube was inserted. Recovery was uneventful. With gradual decannulation, the tracheostomy tube was removed on 8th post operative day. Patient was encouraged to take liquid diet orally after 2 weeks and gradual semi solid diet after a month, when the nasogastric tube feeding was stopped.

The histopathological report confirmed Rhinoscleroma with typical Mickulicz cells and Russel body. Patient was discharged after a month with rifampicin 450mg once daily and ciprofloxacin 500mg twice daily. Reviews at 2 monthly interval revealed subjective and adequate improvement of dysphagia and breathing difficulty.
Case Discussion:

Rhinoscleroma is a rare chronic granulomatous infection that should be suspected in patients from endemic places with nasal polyps, that significantly adhere to the nasal septum with relative sparing of the sinuses. Most often the presentation is non-specific. Because of its mundane clinical presentation resembling chronic rhinitis, it often goes unrecognized. Chronic infection caused by “Klebsiella Rhinoscleromatis” is often a misdiagnosed infectious disease. The most common clinical presentation is nasal obstruction, rhinorrhea, epistaxis, dysphagia, nasal deformity and anesthesia of the soft palate. At times, it may present with breathing difficulty and stridor.

Rhinoscleroma is divided into 3 stages (1) catarrhal or atrophic stage characterized by non specific rhinitis that evolves into purulent fetid rhinorrhea and crusting. (2) granulomatous or hypertrophic stage in which the nasal mucosa becomes bluish red & granular, with the formation of rubbery nodules or polyps in the nose leading to deformity & destruction of the nasal cartilage (hebra nose). The soft palate is markedly thickened at its attachment to the hard palate and tapering off towards its free edge (PALATAL SIGN). (3) sclerotic stage is characterized by sclerosis and fibrosis, where the nodules are replaced by fibrous tissue leading to extensive scarring and stenosis.

The differential diagnosis includes Actinomycosis, Basal cell carcinoma, Leishmaniasis, Leprosy, Nasopalatine duct cyst, Sarcomiosis, Sporotrichosis, Syphilis, Verrucous carcinoma and Wegener’s granulomatosis. The laboratory markers like growth in Macconkey agar media is diagnostic of rhinoscleroma, the bacteria can be seen by using PAS, Giemsa, Gram and silver stains. Staining of the biopsy specimen with immunoperoxidase technique is highly sensitive and specific. Classical pathological findings includes large vacuolated Mikulicz cells and Russells bodies.

Medical treatment is with 3rd generation cephalosporins and clindamycin. Sclerotic lesions respond well to treatment with ciprofloxacin and rifampicin. Surgery combined with medical treatment is the management of choice.

Conclusion:

This case has been reported due to its rarity and difficulty in management. The successful management consists of wide surgical excision with antibiotic therapy. Otherwise it may cause complete stenosis of oropharyngeal and laryngeal architecture leading to stridor and death.

References:


10) Scott- Brown's Otorhinolaryngology, Head and Neck Surgery, 7th edition VOL.2 pg-1462,1463
Case Report:

A 25 years old female presented with complaints of progressive bilateral nasal obstruction since 6 months, mouth breathing since 2 months with no history of any bleeding from nose.

On examination, both nostrils were completely filled by pale pink coloured, polypoidal mass protruding outside the nasal cavity, which did not bleed on manipulation. Examination of oral cavity revealed bulging of buccoalveolar sulcus near upper incisors and canine teeth.

Extensive Rhinoscleroma Involving Nasopharynx - A Case Report

Abhoya Kumar Kar
Prof. & HOD Otolaryngology, G.S.L. Medical College, Rajahmundry (AP)

Pradipt Ranjan Sahoo
Asst. Surgeon, M.K.C.G. Medical College, Berhampur (Gm.), Orissa

Abstract: Rhinoscleroma is a progressive, chronic granulomatous disease of respiratory tract commencing in the nose and eventually extending into nasopharynx, oropharynx, larynx (mostly subglottis) and sometimes trachea & bronchi, caused by a Gm-ve bacillus, Klebsiela rhinoscleromatis (Frisch bacillus). This is a case of huge rhinoscleroma completely obstructing both nostrils, resulting mouth breathing. The mass was excised and an air passage was created by dilatation through endoscope. Post operative Rifampicin and Co-trimoxazole was given for 6 weeks and now the patient is under postoperative follow up.

Key Words: Rhinoscleroma, Frisch bacillus, mouth breathing.

Case Report:

A 25 years old female presented with complaints of progressive bilateral nasal obstruction since 6 months, mouth breathing since 2 months with no history of any bleeding from nose.

On examination, both nostrils were completely filled by pale pink coloured, polypoidal mass protruding outside the nasal cavity, which did not bleed on manipulation. Examination of oral cavity revealed bulging of buccoalveolar sulcus near upper incisors and canine teeth.

X-ray nasopharynx (lateral view) revealed soft tissue mass occluding the nasopharynx and nasal airway.

Biopsy from the nasal mass revealed submucosal infiltration of plasma cell containing inclusion body (Russel Body) & large foamy histiocytes containing bacillus (Mickulicz cells).

Microphotograph showing sheets of foamy histiocytes with cytoplasmic inclusions and plasma cells (H &E, 400 X).

Surgery was planned under general anaesthesia and mass was excised from nose & nasopharynx by endoscope with the hope to reepithelialise the respiratory mucosa. Dilatation of choanae was done by metallic bougue. Bleeding was not alarming and controlled by post-nasal pack. Post operative recovery was uneventful. Application of local acriflavin (2%) and dilatation was done weekly for 1st one month. Patient was advised post-operative Rifampicin (450 mg/day) and Co-trimoxazole (960 mg/day) for 45 days. Now the patient is under follow up.

Discussion:

In 1870, Von Hebra coined the term rhinoscleroma and the cause was ascribed to a bacterium in 1882. Rhinoscleroma is a granulomatous disease which occur at any age and in either sex, more prevalent in northern India and related to poor standard of hygiene.

It presents clinically in stages (I) Catarrhal stage, (II) Atrophic stage, (III) Granulation / Proliferative / Nodular stage and (IV) Cicatricial stage.

In larynx, rhinoscleroma mostly involves subglottis...
presenting as stridor. Malignant changes are uncommon, but can occur especially, if post-operative radiotherapy is given.

Diagnosis is established by histopathological study and culture. Histopathological study shows infiltration of submucosa with plasma cells (containing Russel body), lymphocytes & Mickulicz cells (large foamy histiocytes containing Frisch bacilli). Culture is done from biopsy material and is +ve in 98% cases.

Two treatment options are available.

**Surgical Treatment** - Removal of scar and granulation tissue, dilatation of airway with insertion of polythene tube for 6-8 weeks.

**Medical Treatment** - different regimens are

1. Streptomycin (1 gm/day) + Tetracycline (2 gms/day) for 30 days. A 2nd course is repeated after 1 month. Regimen is continued until two consecutive cultures from biopsy material are proved to be -ve. Cure rate is 60-70%.

2. Rifampicin (450 mg/day) + Co-trimoxazole (960mg/day) for 45 days.

3. Irradiation (3000-3500 cGy over 3 weeks) - It destroys the Klebsiella bacillus.

4. Other -
   a) Local application of 2% Acriflavin solution or Rifampicin.
   b) Use of steroids - only a supportive therapy to reduce fibrosis.

**References :**


**Address for Correspondence:**

Prof. Abhoya Kumar Kar,
Gandhinagar 3rd Line East,
Berhampur (Gm.) - 760 001, Orissa
Phone : 09937097463 / 0680-2225003
E-mail : abhoya.kar@gmail.com

---

**With Best Compliments from :**

**PLEASE STEP IN FOR BEST OF HOSPITALITY**

**HOTEL KAMA’S INN**

[A UNIT OF HOTEL SAPNA SAGAR (P) LTD.]

Zanana Hospital Road, BERHAMPUR– 760 004, Ganjam
Tel. No.: 0680 - 2207656/57/58, Fax No: 0680 - 2225759

**Facilities :**

Well furnished Suites, Deluxe Rooms, Multicusine family A/C Restaurant Serving - Indian, Tandoor, Chinese, etc. 3 Nos. of Conference Hall, Lift & Generator facilities.
Introduction:
A lingual thyroid represents a failure of the median thyroid anlage to descend normally and maybe the only thyroid tissue present. It forms a rounded swelling at the base of the tongue at the foramen caecum. It may be found anywhere between the circumvallate papillae and the epiglottis. The incidence of lingual thyroid is greater among females with the female to male sex ratio ranging from 4:1 to 7:1. Clinical evidence of hypothyroidism is found in up to 33% of cases.

Case report:
A 17 year old female presented to our department with 6 months history of dysphagia and respiratory distress, without stridor. Her family physician, who detected a mass in the base of the tongue, referred her to our hospital for further investigations. On examination, there was a lobulated submucosal mass in the posterior one third of tongue extending to the valecula inferiorly and stopping short of glossoepiglottic fold laterally. Anteriorly it stopped short of the circumvallete papilla. The mucosal surface on the mass was intact without visible pulsations.

An ultrasound of the neck was done, which showed a mass in the posterior one-third of tongue with no evidence of a normal thyroid gland in the neck. Thyroid scan showed a homogenous uptake of radio-iodine in the base of tongue and biopsy taken from the mass at the base of tongue confirmed the diagnosis of lingual thyroid. The operative procedure performed through the Suprahyoid - Pharyngotomy approach is described.

Keywords: Lingual thyroid, Suprahyoid, Pharyngotomy, Thyroid scan.

Abstract: Lingual thyroid is a rare congenital disorder of thyroid gland development. We report a case of lingual thyroid in a 17 year old female, who presented with dysphagia and respiratory distress without stridor. An ultrasound of the neck was done, which showed a mass in the posterior one third of tongue with no evidence of a normal thyroid gland in the neck. Thyroid scan showed a homogenous uptake of radio-iodine in the base of tongue and biopsy taken from the mass at the base of tongue confirmed the diagnosis of lingual thyroid. The operative procedure performed through the Suprahyoid - Pharyngotomy approach is described.

Fig. 1. Thyroid Scan showing a homogenous uptake of radio-iodine in the base of tongue, with the absence of uptake at the site of the normal thyroid gland.

Fig. 2. CT scan revealing contrast enhancing lesion.

Fig. 3. MRI scan revealing a hot lump in the base of tongue.

Fig. 4. Photograph showing entry into the oropharynx.

Fig. 5. Photograph showing the whole mass enucleated by electrodissection.
by secondary intention. Haemostasis was achieved, the wound was closed in layers and nasogastric tube was inserted. The excised specimen was sent for histopathological examination. A stay suture was placed between the chin and the sternum to prevent the patient from extending her neck. The patient was kept nil by mouth for five days. Nasogastric tube was removed after five days. The wound healed well without any complication.

We did not implant the excised thyroid tissue either in the sternocleidomastoid or abdomen, since the lingual thyroid was colloid in nature, the patient was put on life long thyroxine and calcium replacement therapy.

**Embryology:**

In the third week embryonic, life an endodermal thickening appears at the site of tuberculum impar in the floor of the primitive pharynx.

This invaginates to form the thyrolossal duct, which descends into the neck between the first and second branchial arches, so that it comes to lie in close relationship to the primitive aorta.

Later the duct solidifies to form the thyroglossal tract.

When the tract reaches the front of trachea, it becomes bilobed to form the two thyroid lobes connected by isthmus.

Normally, rest of the tract disappears leaving the foramen caecum at the base of the tongue as the only indication of its place of origin.

**Pathology:**

Any part of the tract may persist into adult life.

- Persistence of lower part of tract
- Failure of descent of most of the tract to the neck
- Forms pyramidal lobe of thyroid
- Forms lingual thyroid

Thyroglossal cyst is a clinical condition, which occurs in a persistent tract.

Our case report is about lingual thyroid.

The most important investigations before surgical management are:

a) **ULTRASOUND OF NECK** - To confirm the presence and position of the normal thyroid gland.

b) **RADIONUCLEOTIDE SCAN** - Should be done to confirm the functional status of the lingual thyroid gland and to determine the presence of thyroid tissue in the normal anatomical position in the neck.

**Discussion:**

Ectopic lingual thyroid is a rare developmental anomaly, presenting in the adult with obstructive symptoms during respiration, deglutition and speech. It results from the lack of descent of the gland from the foramen caecum to its normal prelaryngeal location. Seventy percent of patients with lingual thyroid do not have any thyroid tissue in the neck.

Although the anomaly is congenital, it presents in adulthood due to physiological stresses like puberty, pregnancy and lactation. It enlarges in response to the physiological needs and produces symptoms of obstruction, ulceration, hemorrhage and stridor. The main therapeutic issue after exact diagnosis is thyroid suppression, the restoration of thyroid function and surgical intervention.

The clinical management of lingual thyroid remains somewhat controversial because of paucity of data in the literature. Since the disorder presents itself under physiological stress, it is logical to suppress the thyroid stimulating hormone with thyroxine in a hope that, the lingual thyroid (without obstructive symptoms) will regress. Regular follow up and monitoring of thyroid function is essential. Surgical intervention is necessary for selected patients who become symptomatic or have worsening of their initial symptoms, while on suppressive therapy. Surgery becomes crucial or mandatory under conditions such as severe or repeated hemorrhage, gland enlargement with dysphagia, that prevents adequate oral intake and significant airway compromise or dysphonia. CT or MRI is helpful in determining the best approach for total gland excision. The total excision of lingual thyroid may be difficult regardless of the surgical approach, even in the best of hands.

**Conclusion:**

The suprahypoid pharyngotomy approach provides excellent access for majority of the cases and avoid the limited exposure of the transoral route and the added morbidity of a mandible and tongue splitting procedure. Total surgical excision of the gland is necessary to avoid hypertrophy of residual tissue at a later date.

Although there are different surgical approaches to lingual thyroid like transoral approach, mandible and tongue...
splitting approach, the reasons for performing excision by suprahyoid - pharyngotomy approach by us were:

❖ The lingual thyroid was more towards the valeculla.
❖ It was deeply embedded in the musculature of the posterior one-third of tongue.
❖ There was a good access to the site of surgery.
❖ Aesthetically, to avoid scarring (lip-splitting / mandible splitting scar).

Acknowledgements:
We would like to place on record, our sincere thanks to our Dean, Professor Dr. N.CHIDAMBARAM for encouraging us and our Medical Superintendent, Professor Dr. S.VISHWANATHAN for allowing us to use the hospital records to prepare the manuscript.

References:

Address for correspondence:
Dr. V.U. Shanmugam
87, East Car Street
Chidambaram – 608 001.
Tamilnadu, India.
Phone: 04144 – 224654, 224650
Mobile : 9842338163, 9344338163
E-Mail : shanrut@yahoo.co.in.

TARIFF FOR ADVERTISEMENT OF ORISSA JOURNAL OF OTOLARYNGOLOGY & HNS

<table>
<thead>
<tr>
<th>Advertisement Type</th>
<th>Per Issue</th>
<th>Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back cover (Multicolour)</td>
<td>Rs. 10,000/-</td>
<td>Rs. 18,000/-</td>
</tr>
<tr>
<td>Inside front cover (Multicolour)</td>
<td>Rs. 8,000/-</td>
<td>Rs. 13,000/-</td>
</tr>
<tr>
<td>Inside Back cover (Multicolour)</td>
<td>Rs. 7,500/-</td>
<td>Rs. 12,000/-</td>
</tr>
<tr>
<td>Full page (Black &amp; White)</td>
<td>Rs. 5,000/-</td>
<td>Rs. 8,000/-</td>
</tr>
<tr>
<td>Half page (Black &amp; White)</td>
<td>Rs. 3,000/-</td>
<td>Rs. 5,000/-</td>
</tr>
</tbody>
</table>

N.B.:
1. 5% discount if paid in advance
2. The amount should be sent by A/C payee D.D./At Par Cheque, payable at any bank in Berhampur,Ganjam, Orissa payable to “ORISSA JOURNAL OF OTOLARYNGOLOGY & HNS” and should be sent to the undersigned.
3. The Advertisers of this issue are requested to give advertisement in the next issue.

Abhoya Kumar Kar
Editorial Chairman
INSTRUCTION TO AUTHORS

The Orissa Journal of Otolaryngology and Head & Neck Surgery is a half yearly medical journal which publishes original articles and case reports. Case Reports (clinical records) should be very brief and should be confined to single cases without precedent in Indian literature or to cases which illustrate some, entirely new fact in management and investigation.

All articles are reviewed by one or more experts to determine validity, significance, originality of context and conclusions. **Articles should not exceed 5000 words. Case reports should be restricted to 2000 words.**

Address the manuscript to the Editorial Chairman Prof. Abhoya Kumar Kar, Gandhinagar 3rd Line East, Berhampur (Gm.) -760001, Orissa, India. All submissions should include (i) a letter transferring the copyright of manuscript to the Association of Otolaryngologists of India, Orissa State Branch (ii) 2 copies of the manuscript (iii) 2 sets of illustrations, tables etc., state the name and address in full of the author to whom correspondence should be made giving contact numbers and e-mail ID. **Authors should not be more than five.**

Only one copy of the manuscript and illustrations will be returned in case the manuscript is not accepted for publication. The letter transferring copyright should be addressed to the editorial chairman and should state that the manuscript has not been published in part or in whole elsewhere and is solely contributed to the Orissa Journal of Otolaryngology and Head & Neck Surgery. It should mention that, the authors undersigned hereby transfer, assign and otherwise convey all copyright ownership to the Association of Otolaryngologist of India, Orissa State Branch and that the authors do not have any objection to reviewing and edition of this submission by the editorial chairman.

Manuscripts sent without covering letter transferring copyright, signed by all the authors of the manuscript will not be accepted for publication.

1. **Manuscript:** Manuscripts are sent out fro blinded peer review. Do not include authors’ names or institutions on text pages or on figures in the manuscript. The authors’ names and institutional affiliations should appear only on the title page and in the manuscript submission letter. For general guidelines, see the “Uniform Requirements for Manuscripts submitted to Biomedical Journals”, published by the International Committee of Medical Journal Editors (http://www.icmje.org). The manuscript should be computer typed in MS Word (Office 97 onwards) in point size of 12 on white opaque paper. Use double spacing throughout for typing the manuscript. Provide margins of 2.5 cms on all sides. Type on one side of paper only. Submit 2 copies of manuscript. On receiving the letter of acceptance (i.e. approval for publication) from the editorial chairman, the author(s) should send a copy of the article in a compact disc (CD). The diskette should be labeled with the name of the author(s), title of article and the name and version of the world processor used (Microsoft Word). Photographs, if included in the electronic format should he scanned at 300 dpi and sent as jpeg format. Images or photographs should be in separate files or folders.

2. **Title Pages:** The title of the paper should be typed with capital letters on the top. The names of the authors should be given below the title. The initials and surname should be slated . Titles such as “Dr” or “Mr” and academic qualifications should not be mentioned either below the title or in the footnote. The footnote should mention the names of the authors, the name of the institution, the meeting at which the paper was read and acknowledgements and address for correspondence with the main author. The footnote should appear on the title page. The title of the article should not contain more than 50 characters.

3. **Abstract and Keywords:** A concise abstract of not more than 200 words is required for all original clinical and basic science contributions to facilitate rapid indexing and assimilation into the medical literature. Abstracts should be organised according to the outline below. **Objective:** Brief clear statement of the main goals of the investigation. Study Design: eg. randomised. prospective double blind, retrospective case review)

**Setting:** eg. Primary care Vs Tertiary referral centre, ambulatory Vs Hospital.

**Patients:** Primary eligibility criteria and key demographic features, interventions: Diagnostic, therapeutic and/or rehabilitative. Main outcome Measure(s): The most essential criterion that addresses the study’s central hypothesis.

**Results:** Include statistical measure as appropriate.

**Conclusions:** Include only those conclusions that are directly supported by data generalised from that study.

**Basic Science Reports :**

**Hypothesis:** Brief clear statement of the main goals of the investigation.

**Background:** Concise, designed for orientation of the reader who is unfamiliar with this line of investigation.

**Methods:** Succint summary of techniques and materials used.
Results: Include statistical measures where appropriate.

Conclusions: Include only those directly supported by date generated from this study. Emphasize clinical relevance wherever possible. On the same manuscript page as the structured abstract, list in alphabetical order, key words (maximum of seven) for indexing using Medical Subject Headings (MeSH) from index medicus.

4. References: References must be numbered consecutively according to the order of their citation in the text. Use numbers in parentheses for the citations. Personal communications and unpublished data may be cited as such in the text, but are not listed in the references. Journal title should be abbreviated according to index medicus. Reference should be made giving the author’s surname with the year of publication in parentheses. Only papers closely related to the subject should be quoted. Original papers should not have more than 16 references and case reports should not have more than 6 references.

It is most important that the authors should verify personally the accuracy of the exact reference. The responsibility of having permission to reproduce illustrations and photographs from others published work will rest with the authors.

5. Illustrations: Illustrations should be referred to in the text as "figs" and given Arabic numbers. They should be marked lightly with pencil on the back with the figure number, caption, names of authors and title of the paper. The top should be marked with an arrow. Illustrations should be of very high contrast and very clear. Line-diagrams should be drawn on separate sheets with black Indian ink on thick white paper. The size should be at least twice that of final reproduction. Lettering should be professionally done and not handwritten or typed. Each illustration should be described in a legend and grouped on a separate sheet of paper. The legends of micro-photographs should mention the stain as well as the magnification.

The illustration should not be folded during transmission and protected by cardboard. Two sets of illustrations must be submitted with the manuscript.

6. Tables: Tables should be given Roman numbers and referred to in the text as "Table No.". They should be as few as possible and contain only essential data. They should be typewritten on separate sheets of paper. The tables must have a descriptive title.

7. Statistics: Statistics should be completed in consultation with a biostatistician.

8. Abbreviations: Abbreviations should be standard abbreviations.

9. Drug names: Use generic names with the trade names in parentheses.

10. Bibliography: Bibliography should be given at the end of the article on a separate sheet of paper. The names of the journals should be underlined and should appear without abbreviation. The full title of the paper should be given. Mention et al. after writing the names of at least three authors, if the authors are more than three or write the names of all the authors.


The Bibliography should be titled “References” and the quoted articles should be listed in the surname of the first authors.

Charges Payable: According to the decision of the AOI, Orissa State Branch contributors of the articles are to pay Rs. 1500/- for printing charges. Diagrams & Tables over 2 diagrams or 2 tables or 1 diagram and 1 table is charged extra at the rate of Rs. 200/- for each diagram/table over and above Rs. 1500/-. This charge of Rs. 200/- for each illustration/table should be sent only after the author receives the acceptance letter (i.e. approval for publication) from the editorial chairman’s office. D.D. for such payments are to be made in the name of “Orissa Journal of Otolaryngology & HNS,” payable at Berhampur (Gm.), Orissa.

Authors are requested to send their articles and clinical reports addressed to:
Prof. Abhoya Kumar Kar
Editorial Chairman
Orissa Journal of Otolaryngology and Head & Neck Surgery (OJOL & HNS)
Gandhinagar 3rd Line East,
Berhampur (Gm.)-760001, Orissa, India.
Ph.: 0680-2225003/09937064983
Email: abhoya.kar@gmail.com

Life Membership form of AOI can be obtained by sending self addressed stamped envelope of Rs. 5/- to Prof. Abhoya Kumar Kar, Editorial Chairman.