ORIGINAL RESEARCH PAPER

ENT

Volume : 6 | Issue : 11 | November 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 74.50

ENDOSCOPIC MANAGEMENT OF PATIENTS ATTENDING TO ENT OPD WITH BENIGN LESIONS IN NOSE AND PARA NASAL SINUSES.

KEYWORDS

Dr.G.Harikrishna, M S ENT

Assosciate professor , Department of ENT , Rangaraya medical college, Government general hospital, Kakinada, AP.

Dr V.Ch.V.Siva Kumar,M S ENT

Assistant professor, Department of ENT , Rangaraya medical college, Government general hospital, Kakinada, AP.

Dr.Solomon Saawan

Junior resident , Department of ENT , Rangaraya medical college, Government general hospital, Kakinada, AP.

AIM- ENDOSCOPIC MANAGEMENT OF PATEINTS ATTENDING TO ENT OPD WITH BENIGN LESIONS IN THE NOSE AND PNS

MATERIALS AND METHODS:

INCLUSION CRITERIA: All patients coming to emergency room and ENT OPD between December 2013 and October 2015 with complaints of nasal obstruction or nasal mass have been evaluated and cases with tumors and tumor like conditions have been included.

EXCLUSION CRITERIA: All malignant cases and medically treatable cases were excluded from the study.

METHOD OF COLLECTION OF DATA:

This is a prospective study carried out in the department of Otorhinolaryngology, Government ENT Hospital, Kakinada between December 2013 and October 2015 including 40 cases of benign sinonasal masses. The study was approved by the ethics committee of the institution. All cases had been first evaluated clinically.Nasal endoscopy and imaging studies were done wherever applicable. Histopathological examination was done in all cases postoperatively and in select cases preoperatively to ascertain diagnosis.. Detail of types of lesions, symptoms, duration of presentation, clinical, radiological and histopathological findings were recorded and data was analyzed.Cases were treated endoscopically and followed up for a period of 6 months and analyzed.

OBSERVATIONS AND RESULTS:

Forty patients (23 male and 17 female) with benign sinonasal tumors and tumor-like conditions were treated endoscopically from December 2013 to October 2015.

TABLE 1: Sex distribution of cases

TOTAL PATIENTS	MALE	FEMALE
40	23	17

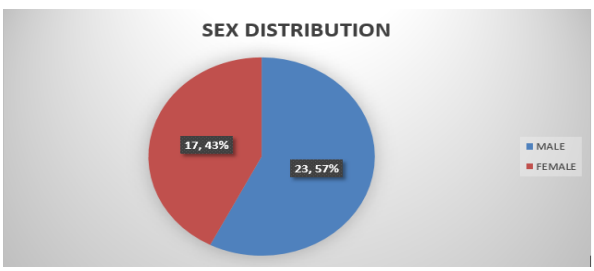


TABLE 2: AGE DISTRIBUTION

AGE	10 -20	21-30	31-40	41-50	>50
PATIENTS	9	12	13	4	2

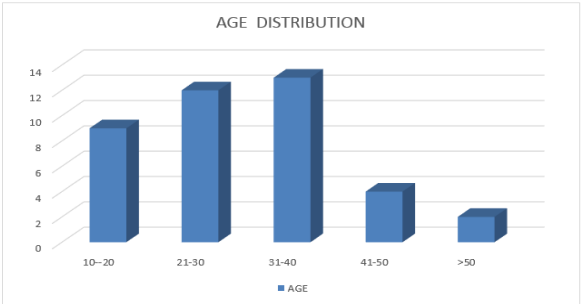
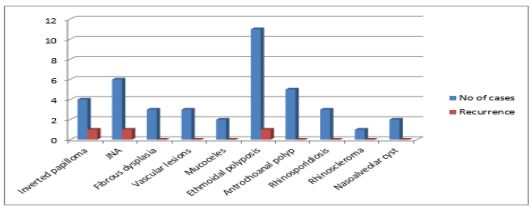
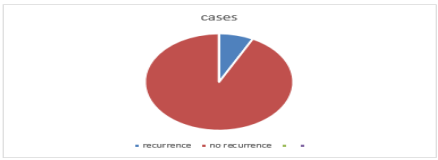


TABLE 3: RECURRENCE

Type of tumour/ condition	No of cases	Recurrence
Inverted papilloma	4	1
JNA	6	1
Fibrous dysplasia	3	0
Vascular lesions	3	0
Mucoceles	2	0
Ethmoidal polyposis	11	1
Antrochoanal polyp	5	0
Rhinosporidiosis	3	0
Rhinoscleroma	1	0
Nasoalveolar cyst	2	0



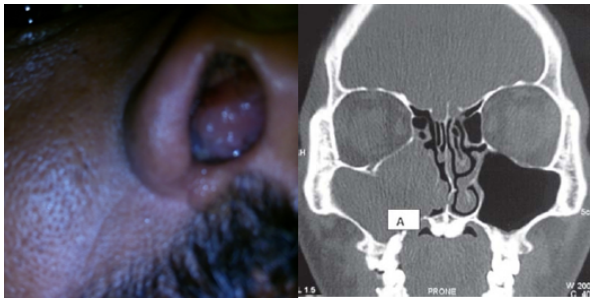


Volume : 6 | Issue : 11 | November 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 74.50

Three cases had recurrence after endoscopic resection, which included one inverted papilloma, one with JNA and one with ethmoidal polyposis. Recurrent tumors were again managed by endoscopic surgery.We had 4 patients with inverted papilloma. All patients were managed endoscopically and one case required endoscopic medial maxillectomy as the tumor was localized to medial wall of maxilla. In three cases, the mass was extending up to the posterolateral wall of maxilla which was removed. In one case, there was frank erosion of the posterolateral wall which was removed with a curved curette starting medially and gradually coming laterally till normal bone was found. One patient had recurrence in whom; the tumor was extending up to lateral wall of the maxillary antrum along with frank erosion.It was removed endoscopically. No major complications were observed and the patients were found to be disease free with a follow-up of 6 months.We had six patients with juvenile nasopharyngeal angiofibroma [JNA]. The criteria for taking the cases for endoscopic excision were limited extent in CT scan as well as sufficient space to work in the anterior nasal cavity. Those tumors filling the nasal cavity completely and mass protruding from the nostril were straight away operated by open approach. The patients with stage IIIA(Sessions classification)1 were managed by endoscope-assisted removal along with lateral rhinotomy. The remaining cases were managed endoscopically. There were no surgical complications. During the follow-up period which ranged from 6to 12 months, one patient had recurrence.Two patients underwent embolization preoperatively one of which was the case with recurrence.Three patients were found with fibro-osseous lesions. All patients were having fibrous dysplasia. The lesion was on the anterior surface of maxilla. Through small sub labial incision, the lesions were shaved with guarded burr on the drill under endoscopic guidance. Endoscopic excision was done without any recurrence with an average follow-up of 12 months.Three patients were having vascular lesions on the nasal septum. The presentation was recurrent bleeding from the nose and these were diagnosed on nasal endoscopy and biopsy. The excision was done with endoscope by cauterizing the healthy perichondrium with the help of bipolar cautery. After thetumor was removed along with normal perichondrium, the raw area over the septum was left to heal itself. Histopathological examination revealed one capillary hemangioma, one hemangiopericytomaand oneangiectatic nasal polyp. No recurrence was noted in any cases.Two patients were seen with mucoceles.All the patients were offered endoscopic marsupialization, which is a very quick procedure. The success of operation depends uponthe size of marsupialization. We followed the principle of 'wider the openings, better the success rate'. No recurrence was noted. Eleven patients with the diagnosis of bilateralethmoidal polyposis presented with nasal obstruction and were taken up for endoscopic removal. The polyps were removed with debrider under endoscopic guidance. One of the patients had recurrence that was managed endoscopically. Five patients had antrochoanalpolyps which were successfully managed by endoscopic surgery.Three patients had rhinosporidiosis (2 males and one female). They were managed endoscopically. They were given Dapsone post operatively for 6 months.No recurrence was seen on follow up.We had one case of rhinoscleroma which was arising from the nasal septum.It was managed endoscopically and put on post-operative Rifampicin. No recurrence was seen during follow-up.Two cases of nasoalveolar cyst were managed endoscopically and no recurrence was seen during follow up.

DISCUSSIONE

Endoscopic sinus surgery for inverted papilloma: We, in our series, had tumor in stage II and III and our recurrence rate after surgery is 25%. The results in our series may be because of less number of cases and limited extension of the tumors on presentation. Traditionally, Inverted papilloma has been treated with en bloc resection via lateral rhinotomy and medial maxillectomy1. There is higher morbidity involving external approaches which includes external scarring, blepharitis, diplopia, intermittent dacryocystitis, CSF leak and facial neuralgia.With the advent of endoscopic approaches, Inverted papilloma can effectively be managed with less morbidity and favorable outcomes. Treatment success depends on exact tumor site location, its extent defined, and removal of all mucosa and underlying bone.Endoscopic management allows unparalleled visualization, avoids external scar and preserves mucociliary physiology. It allows angled visualization facilitating complete tumorresection even in unfavorable sites. The use of microdebriders and diamond burrs combined with endoscopic excision helps to remove underlying bone so that microscopic inverted papilloma can be thoroughly removed1.Post operatively endoscopic management also facilitates regular examination in outpatient setting for post-operative surveillance of tumor bed.It is important to have a detailed preoperative assessment of the extent of the lesion with CT and/or MRI which helps in determining any invasion to the orbits or base of skull erosion. Post- operative follow up is essential to detect early recurrences. In this study, we have a mean follow up of 12 months where all patients followed up are endoscopically examined in an out-patient setting periodically.

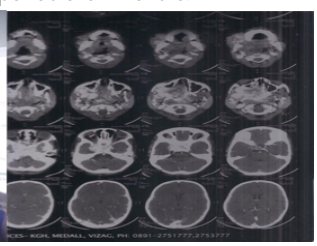


Anterior rhinoscopy: Pt with Inverted Papilloma

CT PNS Coronal view: Inverted Papilloma

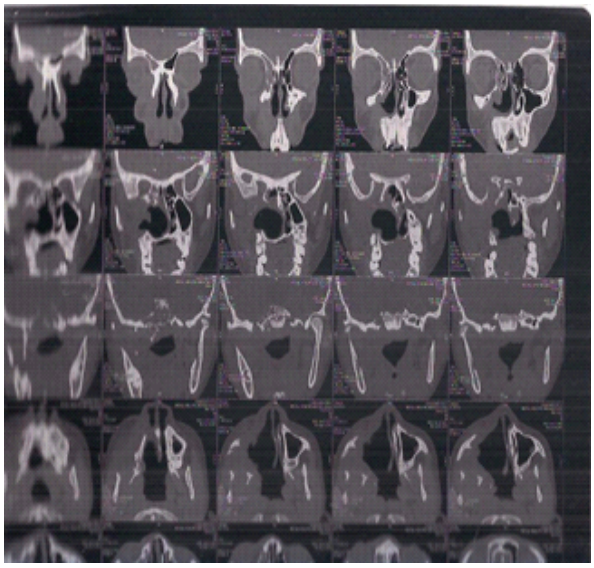
Endoscopic surgery for angiofibroma: The surgical resection is the most accepted for treatment of angiofibroma in early cases and can provide cure with minimum morbidity. The surgical technique should take into consideration the growth of craniofacial skeleton. The endoscopic excision of juvenile angiofibroma is safe and effective for small and intermediate-sized juvenile nasopharyngeal angiofibroma. However, for slightly larger tumor, stage III endoscope-assisted excision can be attempted. This helps the surgeon to go closer to the tumorand dissect it carefully without causing much bleeding. In addition, the feeder vessel can be cauterized or ligated early in the dissection. For stage IV tumor, we did not use endoscopic excision. We had six cases of angiofibroma and five were resected with endoscope and sixth was resected with lateral rhinotomy and later assisted by endoscope. All the tumors were localized (Andrews stage I and II)2 except one, which was the only recurrence in a follow up period of six months.

A case of angiofibroma who underwent preop embolization

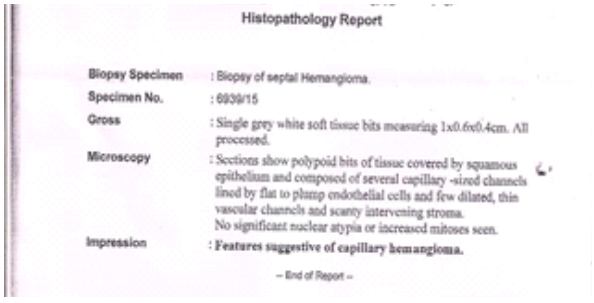


Pre Op CT Scan

Volume : 6 | Issue : 11 | November 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 74.50



POST OP CT



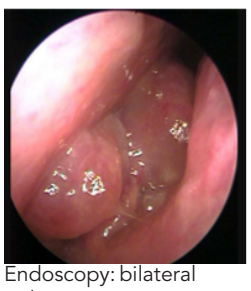
Histopathology Report

Biopsy Specimen	: Biopsy of septal Hemangioma.
Specimen No.	: 6939/15
Gross	: Single grey white soft tissue bits measuring 1x0.6x0.4cm. All processed.
Microscopy	: Sections show polypoid bits of tissue covered by squamous epithelium and composed of several capillary -sized channels lined by flat to plump endothelial cells and few dilated, thin vascular channels and scanty intervening stroma. No significant nuclear atypia or increased mitoses seen.
Impression	: Features suggestive of capillary hemangioma.

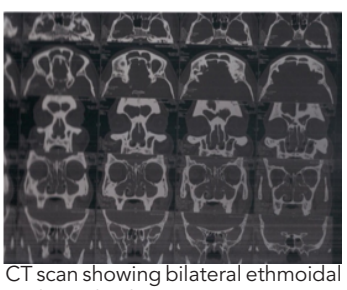
-- End of Report --

HPE REPORT OF HEAMANGIOMA

Mucoceles of the paranasal sinuses are a frequent cause of orbital problems in adults5. The most frequently involved paranasal sinuses are the ethmoidal and frontal sinuses, and occasionally the maxillary sinus. An endoscopic approach is the choice for the management of mucoceles. Marsupialization procedure is quick and with least morbidity. The key to successful outcome is to make a large opening to avoid closure and recurrence.We followed the principle of wide marsupialization and good postoperative care.The most common complications encountered after endoscopic removal of nasal polyps are intranasal crusting, epistaxis and intranasal adhesions. Our patients were advised to use nasal saline irrigation two to three times daily and nasal antibiotic ointment to prevent dryness and crusting for at least two months postoperatively. The use of gel film has been reported to be effective in preventing synechiae formation between the middle turbinate and the lateral nasal wall.

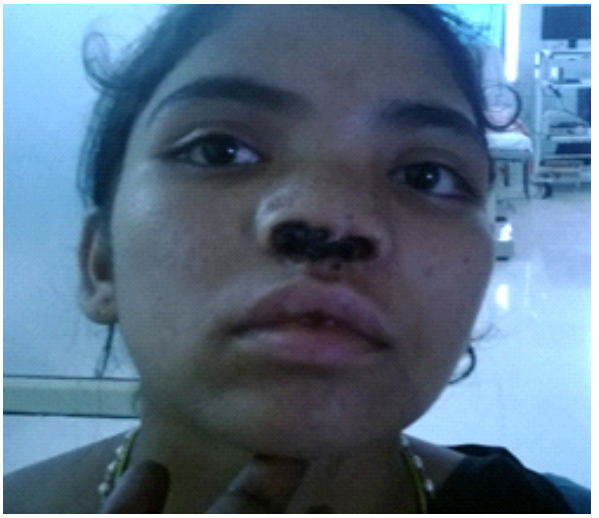


Endoscopy: bilateral polyposis



CT scan showing bilateral ethmoidal ethmoid polyps

Rhinosporidiosis: Surgery is the mainstay of treatment.Surgical excision with cautery of base of lesion has been attempted to reduce the risk of recurrence. Dapsone (4, 4 diamino diphenyl sulphone) is the only drug with anti-rhinosporidial effect. It arrests the maturation of sporangia and promotes fibrosis in the stroma, when used as adjunct to surgery. Good results without recurrence with the use of endoscopic surgery have been reported. The use of endoscope helps in removing the entire mass which cannot be seen by anterior rhin-osco-py/co-nventional surgery. Our case was followed up for one year without recurrence.



Rhinosporidiosis

Rhinoscleroma. We had a single patient treated by endoscopic debridement and antibiotics and no recurrence was seen during the follow up period of 12 months.

Nasoalveolar cysts .Endoscopic cyst marsupialization via transnasal approach can be considered for treatment3. We in our study report 2 cases which were managed endoscopically and followed up without any recurrence during a 12 month period.

CONCLUSION: It can be safely concluded from the present study that endoscopic surgery is preferable for tumors and tumor-like conditions of nose and paranasal sinuses. Although, all the tumors which we treated had limited extent, but to start with, one should start with limited lesions only. Endoscopic transnasal approach of benign rhino-sinosaltumors is a successful surgical method, with the advantage of no aesthetic impairments, reduced hospitalization and preservation of the patient's quality of life, with medium and long term results comparable with open surgery. The combination of removal of benign tumors endoscopically and endoscopic surveillance in the outpatient setting has allowed a less radical surgical approach while resulting in decreased morbidity and better tumor control. Endoscopic sinus surgery is better than conventional intranasal polypectomy because of other pathologies can be treated like high septal deviation, tiny polyp obstructing the ostiomeatal complex aiding better ventilation and drainage of nose and paranasal sinuses.The recurrence rate and complication are less if compared with conventional intranasal polypectomy. It is a minimally invasive surgery, has approximate field of vision and illumination and good access if compared with conventional intranasal polypectomy, but it needs a well-trained and expert surgeon.

REFERENCES:

1. Han JK, Smith TL, Loerhl T, et al. An evolution in the management of sinonasal inverting papilloma. Laryngoscope.2001; 111: 1395-400.
2. Lawson W, Kaufman MR, Biller HF. Treatment outcomes in the management of

Volume : 6 | Issue : 11 | November 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 74.50

inverted papilloma; an analysis of 160 cases. Laryngoscope.2003; 113: 1548-56.
6. Wormald PJ, Ooi E, van Hasselt CA, et al.Endocopic removal of sinonasal inverted papilloma including endoscopic maxillectomy. Laryngoscope.2003; 113: 867-73.
7. Sautter NB, Citardi MJ, Batra PS. Minimally invasive resection of frontal recess/sinus inverted papilloma. AmJ Otolaryngol Head & Neck Med &Surg. 2007; 28: 221-24
8. Mattox, D.E. diagnostic endoscopy of the nose Allergy preceeding.New York: Theime.1988.
9. Levine,H.L.Office diagnosis of nasal and sinus disorders using rigid nasal endoscopey.In:Otolaryngology-Head and neck surgery.Berlin :Springer.2004.
10. Dale H, and Steven D.Shaver,Endoscopic paranasal sinus surgery.Newyork :Theime.2004.
11. Dalziel M. Health Technology Assessment.New Delhi: Jaypee Brothers. 2003.
12. Mackay I,and Lund V.Scott Browns otolaryngology .Bath: Butterworth Heinemann.1997
13. Ezeanolue BC, Odike M. Nasal Rhinosporidiosis-A case reportand outcome of therapy with Flucanozole. J OtorhinolaryngolyNig 2004;1:22-4.
14. Venkateswaran S, Date A, Job A, Mathan M. Light and Electronmicroscopic findings in Rhinosporidiosis after dapsone therapy.Trop Med Int Health 1997; 2:1128-32.
15. Sonkhya N, Singhal P, Mishra P. Naso-oropharyngealRhinosporidiosis: Endoscopic Removal. IJOHNS 2005; 57 :354-6.
16. Tan SL, Neoh CY, Tan HH. Rhinoscleroma: a case series. Singapore Med J 2012; 53:24–27.