

# ADVANCED AND RECURRENT CASES OF NASAL POLYPI-THE TREATMENT OF CHOICE

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## ABSTRACT

**AIMS AND OBJECTIVES:** To compare the internal and external ethmoidectomy in managing advanced and recurrent cases of nasal polypi. **MATERIALS AND METHODS:** This prospective study of 50 cases of either sex was carried at the department of otolaryngology, at Allied hospital, Faisalabad, Pakistan, using randomized probability technique. Patients were evaluated using a proforma. Radiology included the plain X-ray and CT scan with contrast in both axial and coronal views in all the cases. MRI was done in selected cases. **RESULTS:** Male to Female ratio 4:1. In our study modalities of treatment offered to the patients were external ethmoidectomy 25 (50%) and internal ethmoidectomy 25 (50%). Recurrence incidence was 8% among the patients who underwent external ethmoidectomy while 40% among the patients who underwent internal ethmoidectomy. Most of the complications were hemorrhage (12%) and synechia (6%), less common were meningitis (2%), injury to dura (2%) and CSF rhinorrhoea (2%). **CONCLUSION:** For advanced and recurrent cases of nasal polypi, external ethmoidectomy should be offered as the first line of management (in the absence of FESS and image guided surgery) which gives better results as far as recurrence is concerned.

**KEYWORDS:** Nasal Polypi, External Ethmoidectomy, Internal Ethmoidectomy, Recurrence.

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## INTRODUCTION

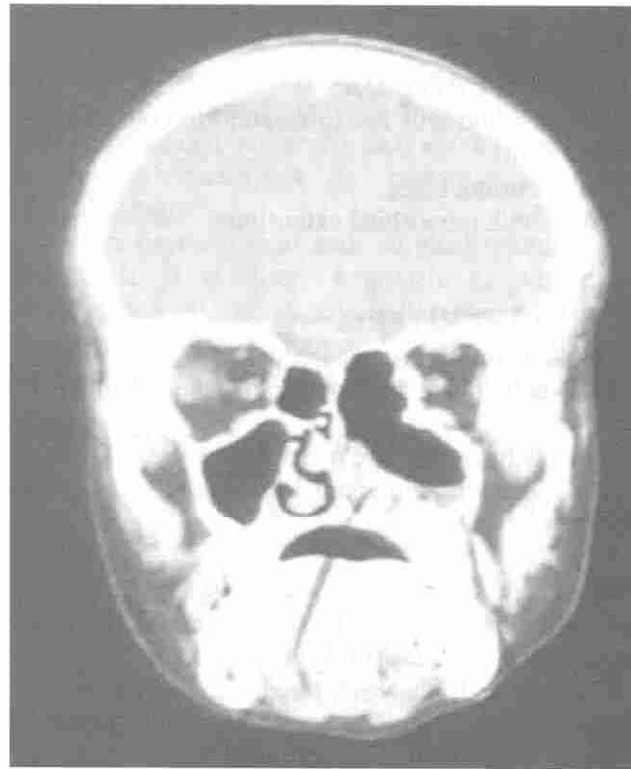
Nasal polypi are translucent edematous polypoidal prolapsed mucosa of the paranasal sinuses. The exact aetiology is unknown. They have a strong tendency to recur. Recurrence of nasal polypi has always been a challenge to the ENT surgeons worldwide. Recurrence is considered to be one of the features of disease and not the complication of the operation. One major advancement to avoid the recurrence is the extensive surgery based on information gathered on CT scans and MRI. Functional Endoscopic sinus surgery was

developed to avoid the scars on the face and to facilitate the excess. To avoid injury to the eyeballs and intracranial cavity, Image Guided Surgery has recently been introduced which incorporates FESS, CT, MRI and computer to allow better access to avoid injury to vital structures. The price of equipment is too high to afford for a poor country like Pakistan (Martin J.S. and Pete S. Batra Clin. North. America 2005). In Faisalabad we do not have the facility of FESS or image guided surgery. So we are left with External and Internal ethmoidectomy. The internal ethmoidectomy includes intranasal ethmoidectomy

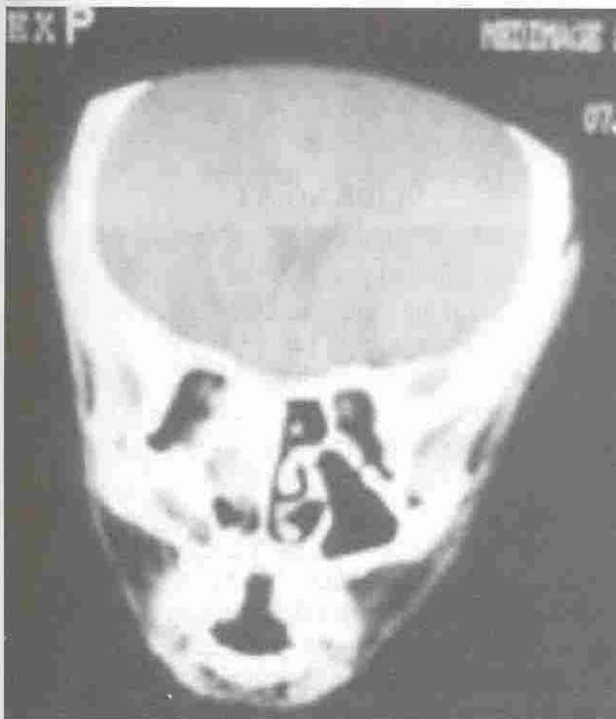
and Transantral ethmoidectomy. External ethmoidectomy is associated with less complications as the identification of orbital contents and cribriform plate is much easier with this technique and disease is removed under direct vision. The external ethmoidectomy is not associated with a bad scar and results are cosmetically acceptable.

#### MATERIALS AND METHODS

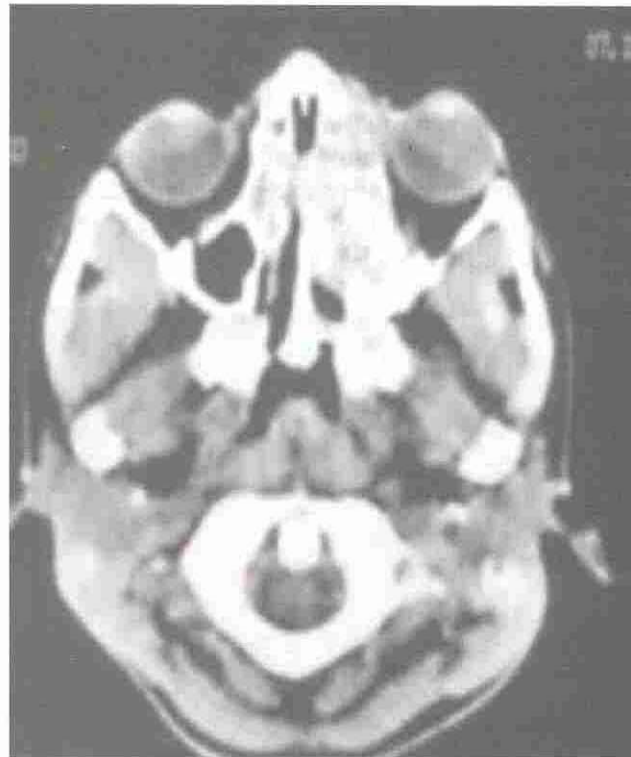
This prospective study of 50 cases of either sex was carried at the department of otolaryngology, Allied hospital, Faisalabad, using randomized probability technique. Patients were evaluated using a proforma. Detailed history regarding nasal obstruction, nasal discharge, anosmia, epistaxis, diplopia, postnasal drip and headache etc. was done. Thorough clinical examination including the ENT, head and neck and systemic examination was done. Detailed investigations including routine and other necessary investigations were carried out. Radiology included the plain radiography and CT scan with contrast in both axial and coronal views in all the cases Slide No I, II, III. MRI was done in selected cases only. Patients under study had following inclusion and exclusion criteria.



SLIDE NO. II



SLIDE NO. I



SLIDE NO. III

### INCLUSION CRITERIA

Patients who will fail to respond to conservative treatment.

The recurrent cases.

Cases with intraorbital extensions

### EXCLUSION CRITERIA

Immunocompromised patients.

Old, debilitated, malnourished patients unfit for G.A.

Patients below the age of 16 years.

The Cases with intracranial extension.

### RESULTS

Out of 50 cases, 80% were male and 20% were females showing strong male predominance i.e 4:1 as shown in Table No. I. Maximum age group was between 21-30 years (Table No II). Most patients presented with nasal obstruction (100%), headache (90%), proptosis(84%) and anosmia (70%) Table No III. On examination, nasal polypi were found in 60%, loss of smell (100%), complete nasal obstruction (100%), nasal discharge (90%), loss of taste (70%), asymmetrical eyes (30%), lacrimation (60%), telecanthus (40%), postnasal drip (30%) as shown in Table No IV. In our study modalities of treatment offered to the patients were external ethmoidectomy 25 (50%) and internal ethmoidectomy 25 (50%) (Table No V), (Slide No IV, V, VI)



SLIDE NO. IV



SLIDE NO. V



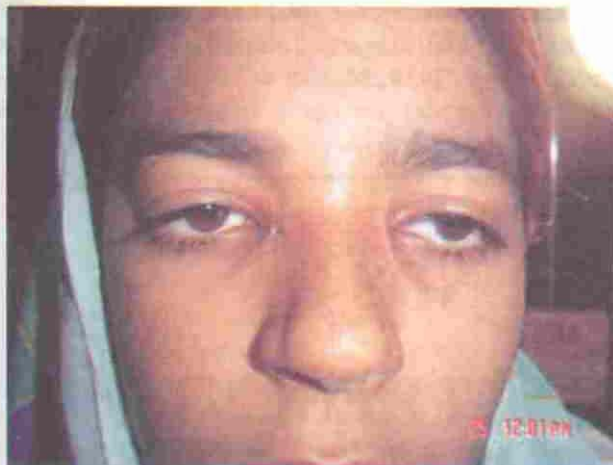
SLIDE NO. VI

Recurrence incidence was 8% among the patients who underwent external ethmoidectomy while 40%, among the patients who underwent internal ethmoidectomy (Table No VI). Most of the complications were hemorrhage (12%), synechiae (6%), less common were meningitis (2%), injury to dura (2%) and CSF rhinorrhoea (2%) (Table No VII).

### DISCUSSION

As the nasal polypi are very common in our society, advanced and recurrent cases were managed successfully by using external ethmoidectomy. In our study of 50 cases, male to female ratio was 4:1, whereas worldwide this ratio ranges between 2:1 to 4:1. In Pakistan this ratio is 2:1 (Iqbal K, Saqlain G, Jalisi M. 1993). Allergic nasal polyps are very rare in children and after 6<sup>th</sup> decade of life (Latif MM. 1992).

Nasal allergy is the most widely (90%) accepted theory of genesis as compared to others like bemoullies's phenomenon, polysaccharide changes, vasomotor imbalance, and infection (Akhtar *et al.* 2004) Treatment modalities offered to the patient's were internal (including intranasal and transantral) and external ethmoidectomy. Recurrence in the patients treated with internal ethmoidectomy was 40% and for those treated with external ethmoidectomy was 8%. The 40% recurrent cases after internal ethmoidectomy were later treated with external ethmoidectomy with no recurrence within 6 months of follow-up. This shows that the external ethmoidectomy is the modality of choice for the advanced and recurrent cases of nasal polypi. External ethmoidectomy is associated with less complications as the identification of orbital contents and cribriform plate is much easier with this technique and we may remove the disease under direct vision (Patterson N.1939). The external ethmoidectomy is not associated with a bad scar as is usually thought. The postoperative scars are quite acceptable (Slide No VII). The complication rate in our series is 24%, which is quite comparable with other larger series (Freedman *et al.* 1979). Latest advances in the surgery of ethmoids is Image guided surgery which incorporates FESS, CT Scan, MRI and computer is quite expensive and the results with this techniques are still awaited Martin J. Citardi, Pete S. Batra. 2005). In the absence of FESS the external ethmoidectomy is still considered to be the treatment of choice in advanced and recurrent cases of nasal polypi.



SLIDE NO VII

## CONCLUSIONS

For advanced and recurrent cases of nasal polypi, external ethmoidectomy should be offered as the first line of management (in the absence of FESS and image guided surgery) which gives better results as far as recurrence is concerned. External ethmoidectomy gives less psychological and surgical trauma to the patient. It is a direct approach in which the identification of vital structures like eye and base of skull is easier. It does not cause a bad scar on face as is thought to be, if wound is properly stitched.

TABLE-I: SEX DISTRIBUTION

SEX	NUMBER	PERCENTAGE
MALE	40	80%
FEMALE	10	20%

TABLE-II: AGE DISTRIBUTION

AGE	NUMBER	PERCENTAGE
0-10	0	0%
11-20	6	12%
21-30	32	64%
31-40	10	20%
41-50	2	4%
51-60	0	0%

TABLE-III: SYMPTOMS DISTRIBUTION

SYMPTOMS	NUMBER	PERCENTAGE
Nasal Obstruction	50	100%
Headache	45	90%
Orbital Proptosis	42	84%
Anosmia	35	70%
Nasal Discharge	35	70%
Epistaxis	2	4%

**TABLE-IV: SIGNS DISTRIBUTION**

SIGNS	NUMBER	PERCENTAGE
Nasal Polypi	50	100%
Anosmia	50	100%
Nasal Obstruction	50	100%
Nasal Discharge	35	70%
Loss of Taste	35	70%
Asymmetrical Eyes	30	60%
Lacrimation	30	60%
Postnasal Drip	30	60%

**TABLE-V: TREATMENT MODALITY**

TREATMENT MODALITY	NUMBER	PERCENTAGE
External Ethmoidectomy	25	50%
Internal Ethmoidectomy	25	50%

**TABLE-VI: RECURRENCE RATE**

TREATMENT MODALITY	NUMBER	PERCENTAGE
External Ethmoidectomy	4	8%
Internal Ethmoidectomy	20	40%

**TABLE-VII: COMPLICATION RATE**

SIGN	NUMBER	PERCENTAGE
Hemorrhage	6	12%
Synaechae	3	6%
Injury to Dura	1	2%
Meningitis	1	2%
CSF Rhinorrhea	1	2%

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