(e) ISSN Online: 2321-9599

(p) ISSN Print: 2348-6805

ORIGINAL ARTICLE

To assess cases of deviated nasal septum- A clinical study

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***ABSTRACT*:**
Background: Nasal Septal deviations are extremely common, but all of them affect nasal function. The present study was conducted to assess cases of deviated nasal septum. **Materials & Methods:** The present study was conducted on 76 patients of both genders. Side of involvement, symptoms etc. was recorded. **Results:** Out of 76 patients, there were 40 males and 36 females. The most common symptom was nasal obstruction see in 54, nasal discharge in 38, loss of smell in 32, headache in 25 and bleeding per nose in 12 cases. The difference was significant (P< 0.05). Septal deviation was right side in 32, left side in 30 and bilateral in 14 cases. The difference was significant (P< 0.05). **Conclusion:** Authors found that most common symptoms in patients was nasal obstruction followed by nasal discharge. Right side septal deviation was seen in maximum number of cases.
Key words: Nasal obstruction, Septal deviation, Smell

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This article may be cited as: Gupta AK, Sharma PD. To assess cases of deviated nasal septum- A clinical study. J Adv Med Dent Scie Res 2016;4(5):181-184.

INTRODUCTION

Nasal Septal deviations are extremely common, but all of them affect nasal function. Many septal deviations are due to direct trauma. Incidence of septal deviation is not known, but at our institute, surgery for correction of septal deviation is done at a rate of 300 - 350 per year and it is the second most common surgery performed after tonsillectomy. This indicates that incidence and prevalence is quite high in general population.[1]

Though majority of human beings have deviated nasal septum, most of them are asymptomatic and cause little if any discomfort.[2] However, deviated nasal septum may cause nasal obstruction and predispose to various interrelated ailments like sinusitis, epistaxis, dysfunction of the Eustachian tube, otitis media, and respiratory tract infections both upper and lower, dental mal-alignments and in turn poor general health. Deviation of the septum was classified by Cottle into four different groups: subluxation, large spurs, caudal deflection and tension septum.[3]

Patients in whom the septal cartilage has been damaged in the neonatal period and during birth can present with severe septal deviation in the absence of a history of nasal trauma.[4] Microfractures sustained during late intrauterine life and during birth may cause weakness in the damaged side of the cartilage.7The result is asymmetric bending of the cartilage toward the side of the injury, while the contralateral side achieves dominance over time. These conclusions are supported by evidence matching the direction of septal deviation with the presentation of the fetal head in the pelvis during delivery. Up to 20 percent of babies born are found to have 'squashed noses.'[5] The present study was conducted to assess cases of deviated nasal septum.

MATERIALS & METHODS

The present study was conducted in the department of ENT and General Surgery. It comprised of 76 patients of both genders. The study protocol was approved from institutional ethical committee. All patients were informed regarding the study and written consent was obtained.

Data such as name, age, gender etc. was recorded. Side of involvement, symptoms etc. was recorded. Results were tabulate and subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 76		
Gender	**Male**	**Female**
Number	40	36

Table I shows that out of 76 patients, there were 40 males and 36 females.

Graph I Distribution of patients

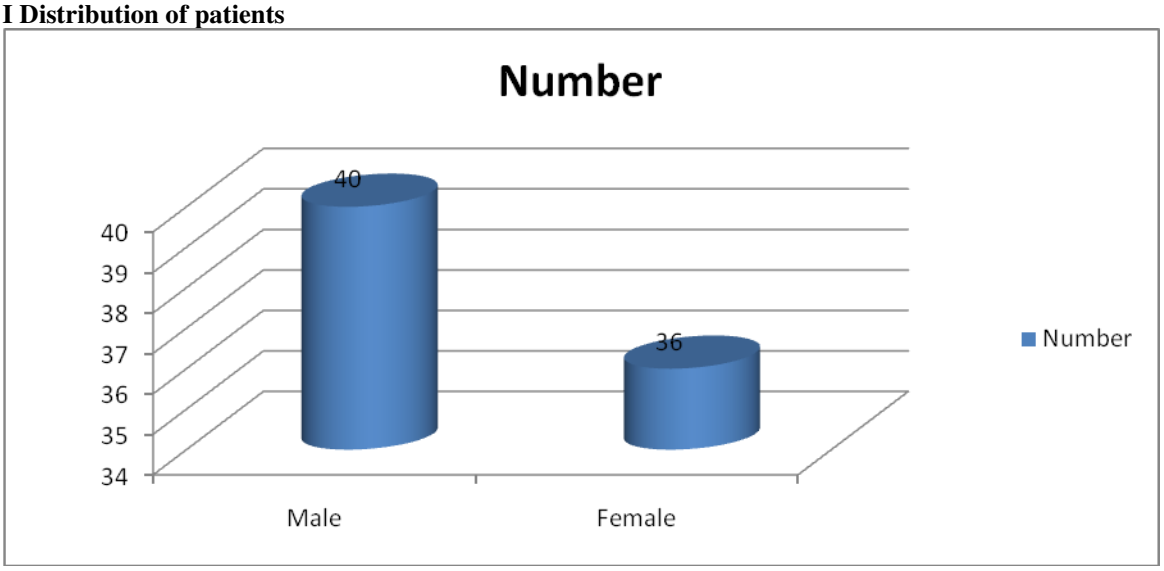


Table II Clinical features in patients

Features	Number	P value
Nasal obstruction	54	0.02
Nasal discharge	38	
Headache	25	
Bleeding per nose	12	
Loss of smell	32	

Table II, graph II shows that most common symptom was nasal obstruction see in 54, nasal discharge in 38, loss of smell in 32, headache in 25 and bleeding per nose in 12 cases. The difference was significant (P< 0.05).

Graph II Clinical features in patients

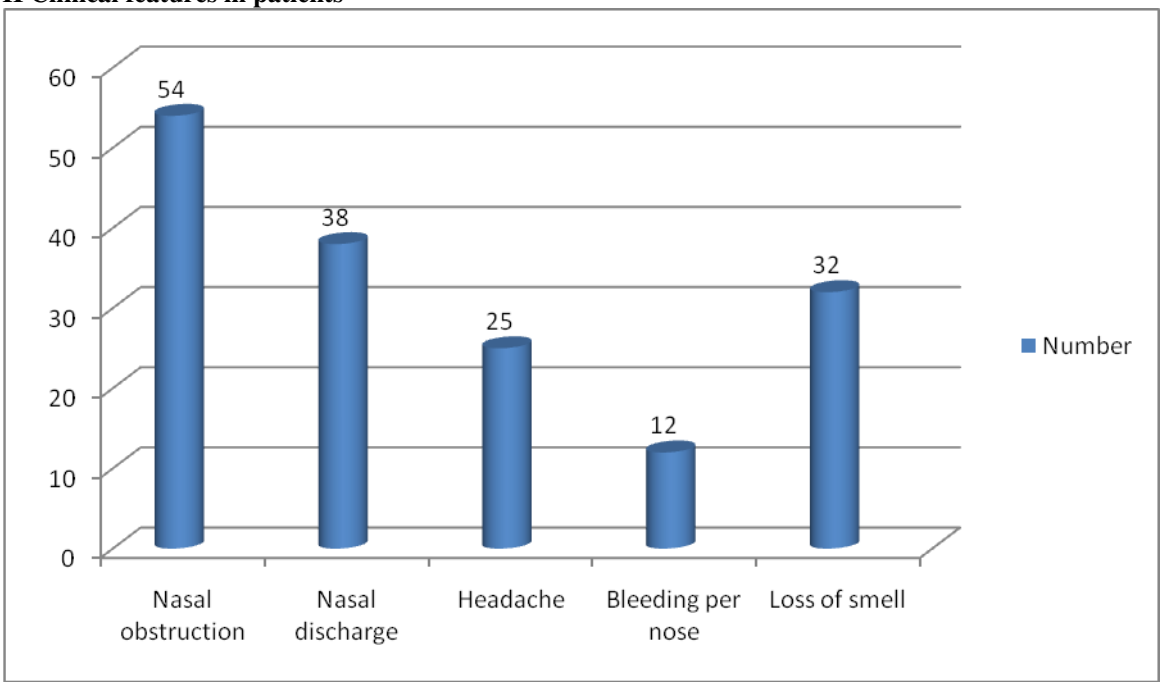
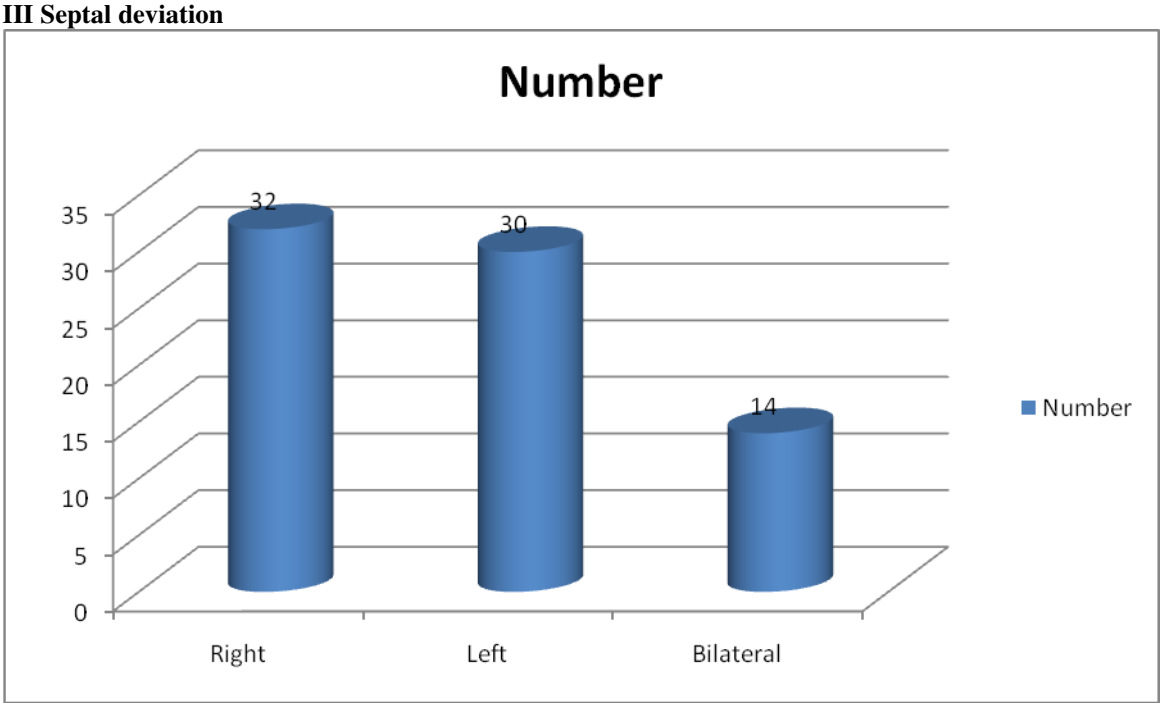


Table III Septal deviation

Septal deviation	Number	P value
Right	32	0.05
Left	30	
Bilateral	14	

Table III, graph III shows that septal deviation was right side in 32, left side in 30 and bilateral in 14 cases. The difference was significant (P< 0.05).

Graph III Septal deviation



DISCUSSION

Septal deviation from traumatic impact can occur in childhood or adult life. Childhood trauma can cause severe nasal obstructive problems in adult life because any degree of septal deviation usually becomes more pronounced with time. The Fry principle also provides at least theoretical cause of deviated cartilaginous septum.[6] The cartilaginous septum is composed of a sandwich of layers the innermost is held under tension by the outer layers. If one outer most layer is breached as in a traumatic bend of the septum, the inner most tension is lost and the septum remains deviated. Subsequent scarring and fibrosis ensure this deviation remains. Usually, the junction of the bony and cartilaginous septum is the area of greatest deviation due to trauma.[7] The present study was conducted to assess cases of deviated nasal septum.

In present study, out of 76 patients, there were 40 males and 36 females. We observed that most common symptom was nasal obstruction see in 54, nasal discharge in 38, loss of smell in 32, headache in 25 and bleeding per nose in 12 cases. Sathyaki et al[8] conducted a clinical study in 115 cases, surgery was performed in 60 cases. They were divided into group A and group B with 30 cases in each group. Conventional septoplasty was performed in group A while endoscopic septoplasty in group B. The male to female ratio was found to be 2.19:1. Majority (37.18%) patients were of age group 11-20 years with deviation to the left (54.78%). Nasal obstruction (58.26%) was the commonest presenting complaint. Postoperatively, a significant relief of symptoms were observed in endoscopic septoplasty in terms of nasal obstruction (93.33%) and hyposmia (87.5%). Post-operative complications were higher in conventional septoplasty with significant rate of residual deviation.

We found that septal deviation was right side in 32, left side in 30 and bilateral in 14 cases. Iqbal et al[9] included 30 cases of nasal septal deviation. A total number of 100 cases have been examined endoscopically and CT scan findings were taken. 30 cases of various grades based on Mladina classification has been chosen for the present study. The endoscopic findings and CT scan findings have been compared and surgery planned accordingly. A standard classification of nasal septal deviation should be developed and followed so that it can be included in evaluating the symptomatology and severity of the deviated nasal septum. Thorough evaluation of deviated nasal septum by

endoscopy and comparison with CT scan of paranasal sinuses is an excellent protocol to achieve significantly successful surgical outcome. An attempt was made to study various classifications of deviated nasal septums in the literature and among those Mladina classification seemed to be more acceptable in evaluating deviated nasal septums. Chitradurga SM et al[10], they found that majority of the patients presented with the nasal obstruction (90%) followed by the nasal discharge (20%) and headache (40%). Hyposmia was present in 6.4% of the patients. The mean intraoperative time taken during conventional septoplasty was 36.35 mins with a standard deviation of ±5.33mins. During endoscopic septoplasty, the mean intraoperative time taken during was 38.7 mins with a standard deviation of ±4.77min. Thus the time taken was highest in case of endoscopic septoplasty.

CONCLUSION

Authors found that most common symptoms in patients was nasal obstruction followed by nasal discharge. Right side septal deviation was seen in maximum number of cases.

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