

Original Article

Analysis of Symptoms and Types of Deviated Nasal Septum- A Clinical Study

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ABSTRACT:

Background: Deviated nasal septum (DNS) is deviated nasal septum leading to obstruction of the nasal cavity, snoring, unaesthetic appearance and increased nasal resistance. The present study was done to assess the cases of DNS in study population. **Materials & Methods:** It included 340 patients of both gender. General information such as name, age, gender etc was recorded. Other symptoms such as nasal obstruction, sneezing, itching, rhinorrhoea, were recorded. The septum was then classified as straight, C, S, caudal, spur, crust, posterior, superior etc. **Results:** Out of 340 patients, males were 210 and females were 130. The difference was non – significant (P-0.1). Age group 10-20 years had 27 males and 10 females, age group 20-30 years had 85 males and 42 females, age group 30-40 years had 70 males and 55 females, age group 40-50 years had 23 males and 15 females and >50 years had 5 males and 8 females. The most common type was C shaped (155) followed by S shaped (90), caudal (55) and spur shaped (40). The difference was significant (P-0.02). The common symptoms were nasal obstruction (130), rhinitis (50), snoring (45), headache (35), epistaxis (15), sore throat (20), post nasal drip (18) and sneezing (27). The difference was significant (P-0.05). **Conclusion:** Deviated nasal septum is quite common in adults. We found more males predominance in our study. Common symptoms were nasal obstruction, rhinitis and snoring.

Key words: Deviated nasal septum, Epistaxis, Snoring.

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This article may be cited as: Regmi R. Analysis of Symptoms and Types of Deviated Nasal Septum- A Clinical Study. Int J Res Health Allied Sci 2018;4(1):20-23.

INTRODUCTION

Nose is the part of the face which enhances beauty. The perfect nose is considered with appropriate size and dimension. The face loses its beauty if the balanced nose is not in harmony with the other components of the face. The nasal septum comprises of bony cartilage that separated the nasal cavity into right and left sides. The ideal nasal septum is one which is straight and at the centre of the nasal cavity. This type of nasal septum is difficult to find. Small amount of deviation is present in most of the cases. DNS is deviated nasal septum leading to obstruction of the nasal cavity, snoring, unaesthetic appearance and increased nasal resistance.¹

Deviated nasal septum is of two types: anterior cartilage deformity of the quadrilateral septal cartilage which is normally caused by direct trauma or pressure. If the deviation is developmental, it is generally smooth, “C” shaped or “S” shaped and occurs more often on the anterior septum. In case of the traumatic deviation, it is usually irregular, angulated and many times dislocated. This can occur at any age. The second type is a combined septal deformity which involves all the septal components. This

occurs congenitally and is caused by compression across the maxilla from pressures occurring during pregnancy or parturition. This leads to facial deformity.²

The occurrence of DNS poses less or more problems or discomfort to the patient and most of them remain asymptomatic and discovered accidentally during radiographical examination. The biggest drawback of having DNS is nasal obstruction, bleeding from the nose, URTI and LRTI and otitis media, infections of the sinus and sleep apnea, snoring, repetitive sneezing, facial pain, and mild to severe loss of the ability to smell.³The present study was done to assess the cases of DNS in study population.

MATERIALS & METHODS

This study was performed in the department of Ear, Nose & Throat. It included 340 patients of both gender. All were informed regarding the study and written consent was obtained. Ethical clearance was taken from institutional ethical committee.

General information such as name, age, gender etc was recorded. Other symptoms such as nasal obstruction,

sneezing, itching, rhinorrhoea, were recorded. The examination was performed by senior ENT surgeon with disposable nasal speculum and nasal endoscope and the interior of the nasal cavity was checked. CT scan and PNS views were taken to confirm the condition. The septum was

then classified as straight, C, S, caudal, sour, crust, posterior, superior etc. Results were tabulated and subjected to statistical analysis using chi- square test. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 340		
Males	Females	P value
210	130	0.1

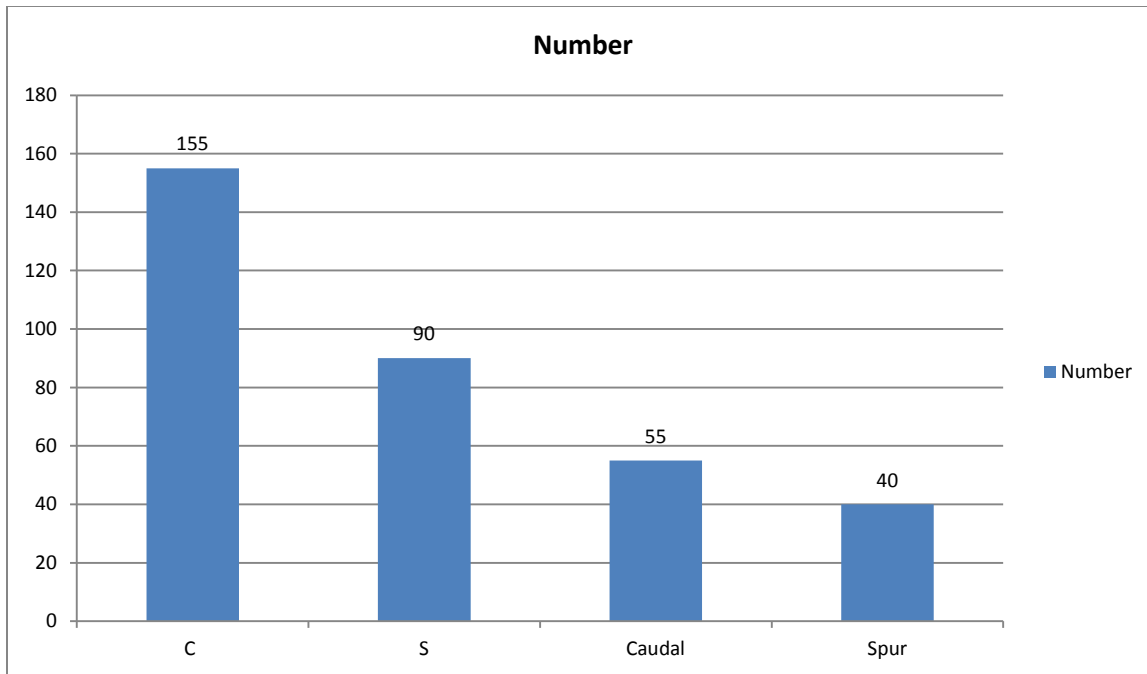
Table I shows that out of 340 patients, males were 210 and females were 130. The difference was non – significant (P-0.1).

Table II Age and gender wise distribution

Age group (years)	Males	Females	P value
10-20	27	10	0.05
20-30	85	42	0.01
30-40	70	55	0.5
40-50	23	15	0.2
>50	5	8	0.1
Total	210	130	

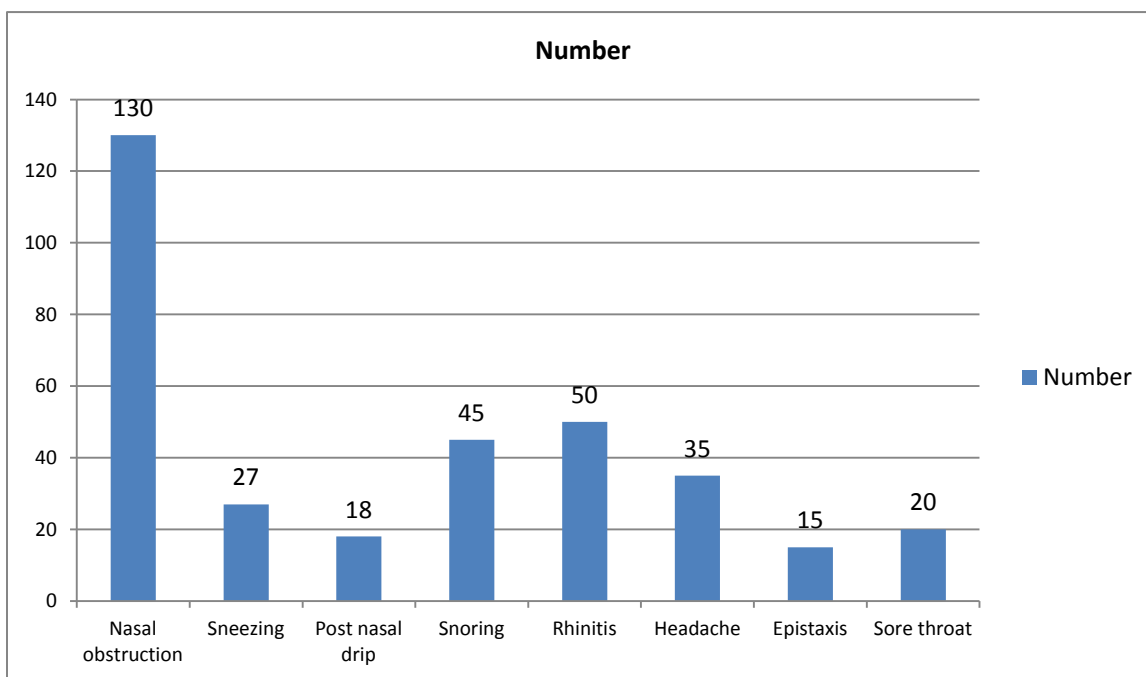
Table II shows that age group 10-20 years had 27 males and 10 females, age group 20-30 years had 85 males and 42 females, age group 30-40 years had 70 males and 55 females, age group 40-50 years had 23 males and 15 females and >50 years had 5 males and 8 females.

Graph I Types of DNS



Graph I shows that most common type was C shaped (155) followed by S shaped (90), caudal (55) and spur shaped (40). The difference was significant (P-0.02).

Graph II Symptoms in patients



Graph II shows that common symptoms were nasal obstruction (130), rhinitis (50), snoring (45), headache (35), epistaxis (15), sore throat (20), post nasal drip (18) and sneezing (27). The difference was significant (P-0.05).

DISCUSSION

It is most frequently caused by impact trauma, such as by a blow to the face. It can also be a congenital disorder, caused by compression of the nose during childbirth. Deviated septum is associated with genetic connective tissue disorders such as Marfan syndrome, Homocystinuria and Ehlers–Danlos syndrome.⁴

In this study, out of 340 patients, males were 210 and females were 130. We observed that maximum patients were seen in age group 20-30 years (85 males and 42 females) followed by age group 30-40 years (70 males and 55 females), age group 40-50 years (23 males and 15 females), age group 10-20 years (27 males and 10 females) and >50 years had 5 males and 8 females. This is similar to Reitzen SD et al.⁵

We found that most common type was C shaped, S shaped, caudal and spur shaped. The common symptoms were nasal obstruction, rhinitis, snoring, headache, epistaxis, sore throat, post nasal drip and sneezing. This is in agreement with Arya et al.⁶ An another study by oleiviera et al⁷ found rhinitis and nasal obstruction as main signs and symptoms of the condition.

Conservative management of septoplasty includes the use of decongestants, antihistamines, and nasal spray. These are symptomatic treatment modalities and correct condition temporarily. The management of DNS includes septoplasty. It is one of the surgical procedures for the correction of a deviated nasal septum. It was first described by Cottle.

Conventional septoplasty is a conservative surgery in which only the deviated part is removed leaving behind as much cartilage and bone as possible. Septoplasty is the best management of DNS. Recovery from the procedure may take 2 days to 4 weeks to heal completely. Septal bones never regrow.⁸

Endoscopic septoplasty is a minimally invasive technique that helps us to correct the deformity of the septum under direct visualization using an endoscope. The overall functional improvement is judged on the basis of relief of pre-operative signs and symptoms, post-operative cosmetic improvement. Endoscopic septoplasty has revolutionarized the field of cosmetic surgery. This is an effective technique with better illumination thus identifying the pathology accurately helping in limited dissection & manipulation of the mucosal flap and septal cartilage. It also leads to minimal morbidity and is excellent teaching tool.⁹

There are few complications of septoplasty such as nasal septum perforation due to bilateral trauma of the mucoperichondrial flaps opposite each other, septal hematoma and septal abscess. Other common are adhesions and synachiae between septal mucosa and lateral nasal wall, saddle nose due to over-resection of the dorsal wall of the septal cartilage and dropped nasal tip due to resection of the caudal margin.¹⁰

CONCLUSION

Deviated nasal septum is quite common in adults. We found more males predominance in our study. Common symptoms were nasal obstruction, rhinitis and snoring.

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Source of support: Nil

Conflict of interest: None declared

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