

HOSTED BY



Contents lists available at ScienceDirect

Egyptian Journal of Ear, Nose, Throat and Allied Sciences

journal homepage: www.ejentas.com

Original article

What nasal endoscope adds in septoplasty

Zeyad Mohamed Mandour*

Oto-Rhino-Laryngology Head & Neck Surgery Department, Faculty of Medicine, Alexandria University, Egypt

ARTICLE INFO

Article history:

Received 9 December 2016
Accepted 31 December 2016
Available online xxx

Keywords:

Endoscopic
Traditional
Septoplasty
Advantages

ABSTRACT

A study was conducted to assess the advantages of endoscopic septoplasty over the conventional septoplasty.

Sixty patients having symptomatic deviated nasal septal were randomly divided into two groups of 30 patients each. One group underwent conventional septoplasty and the other group underwent endoscopic septoplasty. The groups were compared regarding the relief of symptoms after surgery and complications.

The symptoms postoperatively and the objective assessment were significantly less in endoscopic septoplasty group.

Endoscopic septoplasty is a fast developing concept and gaining popularity as it provides a direct targeted approach to the septal anatomic deformity, allowing a minimally invasive procedure with limit septal mucosal flap dissection and removal of small cartilaginous and/or bony deformity.

© 2017 Egyptian Society of Ear, Nose, Throat and Allied Sciences. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Numerous medical descriptions are available regarding the pathology and the treatment of the deviated nasal septum. However, none of these descriptions have highlighted a complete surgical management of this condition to improve the nasal airway.

Each surgical procedure has its limitations and cannot deal with all variants of the deformities of the nasal septum. Traditional septoplasty was first described by Cottle (1947) as a treatment to correct nasal airway obstruction.¹

The application of endoscopic techniques for the correction of septal deformities was initially described in 1991 by Stammberger.² Lanza et al. (1991) described endoscopic techniques to correct septal deformities.³ Giles et al. evaluated the role of endoscopic septoplasty as an adjunct to functional endoscopic sinus surgery.⁴ Hwang et al. stated that endoscopic septoplasty is helpful in correction of posterior septal deformities, revision cases and as an effective teaching tool.⁵

Variations in septal and turbinate anatomy may play a role not only in nasal obstruction, but also in the development of chronic sinus disease. This is believed to be due to both anatomic narrow-

ing of the ostiomeatal complex (OMC) as well to disruption of mucociliary function.⁶

Septal deviation has been associated with significantly longer mucociliary clearance times than in normal controls. Notably, normalization of mucociliary clearance has been observed after septoplasty.⁷

The present study was undertaken to assess the advantages and the problems, if any, during endoscopic septoplasty approach and to compare the postoperative results with the conventional approach.

2. Patients and methods

Sixty patients of deviated nasal septum were selected by simple random sampling method, who was admitted in the department of Otorhinolaryngology, of Alexandria Medical College from March 2012 to September 2014.

They were divided into group A and B, with 30 cases in each group. Group A underwent conventional septoplasty and group B underwent endoscopic septoplasty.

Patients with nasal obstruction, nasal discharge, post nasal drip, sneezing, facial pain and headache were included in the present study. Patients with allergic rhinitis and upper respiratory tract infection were excluded.

Ethical clearance was obtained from ethical committee of Alexandria Medical College and informed consent was taken from each subject.

Peer review under responsibility of Egyptian Society of Ear, Nose, Throat and Allied Sciences.

* Corresponding author at: 25 Fawzi Moaz, Smouha, Alexandria, Egypt.

E-mail address: ziad301@hotmail.com

<http://dx.doi.org/10.1016/j.ejenta.2016.12.016>

2090-0740/© 2017 Egyptian Society of Ear, Nose, Throat and Allied Sciences. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Please cite this article in press as: Mandour Z.M. What nasal endoscope adds in septoplasty. Egypt J Ear Nose Throat Allied Sci (2017), <http://dx.doi.org/10.1016/j.ejenta.2016.12.016>

A self prepared questionnaire was used to collect the patient's information which included patient's name, age, sex, and occupation, present history, past history, complete examination of nose, anterior rhinoscopy, nasal endoscopy and radiological CT examination.

Statistical analysis was done using Statistical Package of Social Science (SPSS Version 16.0) and Chi square test was applied for comparing the results of the two groups.

2.1. Technique for traditional septoplasty

The conventional approach involves headlight illumination and visualization with nasal speculum.

2.2. Technique for endoscopic septoplasty

The procedure was performed under general anaesthesia. The septum was injected with 1% xylocaine in 1: 20,000 epinephrine on the convex side of the most deviated part of the nasal septum using 0° and 30° rigid 4 mm endoscopes.

Incision was extended from the dorsum to the floor as in classical incision. In some cases, it was performed horizontal along the spur or the deviated part just as needed to expose only the most deviated part.

The flap was repositioned back after suction clearance and edges of the incision were just made to lie closely without the need to suture. The nasal cavity was packed with merocele (Nasal pack) which is sponge like & expands on getting wet and provides uniform pressure over all surfaces in contact. It also avoids mucosal abrasions while doing packing and removal of it.

3. Results

It was observed that the maximum number of patients was in the young and middle age groups between 20 and 40 years (Fig. 1) with male predominance (38 males and 22 females).

Pre-operative nasal obstruction was observed in 53 of 60 cases (88.3%) while posterior nasal drips in only 45 of 60 cases (75%). Headache was reported in 24 of 60 cases (40%) and sneezing in only 16 of 60 cases (26.7%) preoperatively.

By endoscopic nasal examination, inferior nasal turbinate was hypertrophied in 50 of 60 cases (83.3%) of cases while middle tur-

binatization was reported in only 31 of 60 cases (51.67%) of our cases.

After comparing our results regarding the two techniques, we found that there is a significant improvement of nasal obstruction in the endoscopic septoplasty group in 27 of 30 cases (90%) when comparing 16 of 23 cases (69.5%) after the traditional technique.

There is also a significant improvement of headache in 10 of 14 cases (71.4) after endoscopic septoplasty group when comparing 6 of 10 cases (60%) after traditional septoplasty.

Regarding posterior nasal drip there was no significant difference between the endoscopic and the traditional septoplasty groups, 16 of 24 cases (71.4%) and 14 of 21 cases (66.6%) respectively. As well as, sneezing improvement was nearly the same, in 5 of 9 cases (55.5%) and 4 of 7 cases (57.1%) respectively.

Regarding the post-operative objective assessment at the last follow up after one year among the two groups, persistent anterior septal deviation was nearly similar in both groups with a bias to the traditional septoplasty procedure. Persistent posterior septal deviation was encountered less in the endoscopic septoplasty procedure. While remnant septal spur was observed only postoperatively after the traditional septoplasty. Postoperative synechia was prominent also after the traditional technique (Table 1).

4. Discussion

In the present study we found male to female ratio of septal deviation was 1.72:1. The most common affected group was of the younger age groups between the 2nd & 3rd decades. This was in concordance with the study of Rao et al.⁸

Most common complaints of patients with septal deflections were nasal obstruction (88.33%), postnasal drip (75%), and headache (40%), sneezing (26.67%). The frequency of complaints of nasal obstruction (75%) and nasal discharge (55%) were similar to the study of Gupta and Motwani (2005) but the headache was second major complaint in their study.⁹

Nayak et al. (2002) reported that lateral nasal wall pathologies are associated with deviated septum, the commonest and the consistent was the inferior turbinate hypertrophy (75%) followed by the pneumatization of the middle turbinate.¹⁰

In the present study we found almost similar incidence, the commonest was, the inferior turbinate hypertrophy (83.33%) followed by middle turbinate pneumatization (51.67%).

The significant higher rate of symptoms persistence was found within the conventional septoplasty group when compared with the endoscopic group according to the present study which was similar to Nayak et al. results.¹⁰ Sindwani & Wright (2003) stated that 54% of their patients showed improvement while only 8% was not benefited from endoscopic approach.¹¹

Harley et al. (2003) observed significant improvement in patients with nasal obstruction and headache within the endoscopic group when compared with the conventional group.¹²

Table 1

Objective assessments at last follow up among subjects (after 3 months).

Objective assessments at last follow up among subjects			
Objective assessment at 3 months	Conventional septoplasty Group A N = 30	Endoscopic septoplasty Group B N = 30	p-Value
Persistent anterior septal deviation	3 10%	2 6.7%	>0.05
Persistent posterior septal deviation	7 23.3%	3 10%	<0.05*
Persistent septal spur	4 13.3%	0 0%	<0.05*
Synechia	11 36.7%	0 0%	<0.05*

* p-value significant.

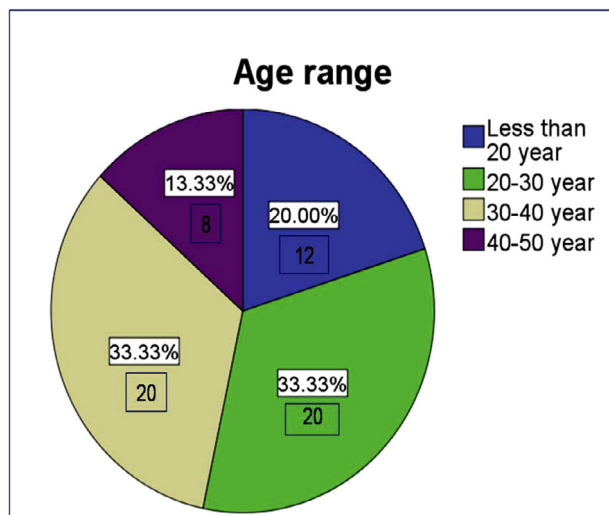


Fig. 1. The maximum number of patients was in the young and middle age groups between 20 and 40 years.

Download English Version:

<https://daneshyari.com/en/article/8805782>

Download Persian Version:

<https://daneshyari.com/article/8805782>

[Daneshyari.com](https://daneshyari.com)