

Methods

This prospective study enrolled 40 patients who attended department of otolaryngology in Al-Kadhimiya Teaching Hospital, their age ranged from 11-50 years. All patients involved in this study were complaining of nasal obstruction due to bilateral inferior turbinate hypertrophy provided that no other cause of nasal obstruction (no nasal polyposis, almost straight nasal septum, no concha bullosa, patent postnasal space, no bony hypertrophy). The study is established over a period of 1 year, and the 40 patients with bilateral inferior turbinate hypertrophy were examined clinically with anterior rhinoscopy, endoscopically with nasopharyngoscopy and radiologically with CT scan. Full preoperative investigations were done. We classified inferior turbinate hypertrophy into three grades:-

Grade1: Normal size inferior turbinate, not atrophic without nasal obstruction.

Grade2: Moderate size inferior turbinate, not touching the septum, with nasal obstruction that responds to local decongestant.

Grade3: Large mulberry turbinate, touching the septum, with nasal obstruction that not responds to local decongestant.

The operation is done in all cases of grade 3 and some cases of grade 2 with nasal obstruction that does not respond permanently to medical treatment. The rhinomanometric examination was carried out one day preoperatively, and 6-12 weeks postoperatively using anterior rhinomanometer type 300 by ATMOS.

Microdebrider-assisted inferior turbinoplasty procedure was performed under general anesthesia. The anterior, inferior and posterior borders were infiltrated with 2% lignocaine and 1/100,000 adrenalin, an antero-inferior incision and sub mucosal pocket on inferior turbinate with a conventional 15 blade and freer elevator. The microdebrider unit was set at 4000-rpm oscillating mode, with inferior turbinate blade 4 mm size introduced in the sub mucosal pocket. A great care was taken to stay in the sub mucosal pocket and more lateral to avoid mucosal

perforation. Light nasal packing was done for 24 hours.

Postoperatively patients instructed to use nasal irrigation with sodium bicarbonate 2% three times daily for one week, analgesia, and antibiotic. The first visit was on the 7th day postoperatively, then monthly for 3 months, then at 6th month and at one year. At each visit the nose was examined for any bleeding, crusts which were removed, mucosal tear, nasal airway patency, and adhesion. Also asking about sneezing, nasal discharge, facial pain and patients smell.

Results

A total of 40 patients, 24 (60%) males and 16 (40%) females underwent microdebrider-assisted inferior turbinoplasty. In this study the age ranged from 11-50 years with a mean age of 34 years table 1.

Table 1. Age Distribution of the patients

Age Group (year)	No.	%
11-20	8	20
21-30	10	25
31-40	18	45
41-50	4	10
Total	40	100

The 40 patients had suffered from nasal obstruction due to inferior turbinate hypertrophy also those patients were suffering from mouth breathing; while 26 of these patients (65%) suffered from nasal discharge; 12 patients (30%) suffered from sneezing; 20 patients (50%) complaining from snoring; 4 patients (10%) suffered from hyposmia and 4 patients (10%) complaining from facial pain table 2.

CT scan of paranasal sinuses revealed mucosal thickening of maxillary sinuses in 30 patients (75%), thickening of ethmoidal sinuses in 16 patients (40%), and mucosal thickening of frontal sinuses in 4 patients (10%). Ten patients (25%) had no changes. Soft tissue shadow of