Research Article

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	Partial inferior turbinectomy N=25	Submucosal diathermy N=25		
	Mean ± SD	Mean ± SD	P value	
Age (year)	26.1 ± 6.6	26.1 ± 6.8	1.00	
	N (%)	N (%)	P value	
Sex :			1.00	
· Female	17 (68%)	17 (68%)		
· Male	8 (32%)	8 (32%)		

Table 1: Socio-demographic characters of the study patients.

degree of post-operative nasal pain. ere was a statistically signi cant di erence (P=0.02) between the two groups regarding the sensation of mild pain, with a lower incidence in patients with PSIT, with no statistically signi cant di erence regarding the sensation of moderate pain. However there was a statistically signi cant di erence (P=0.01) between the two groups regarding the reporting of severe pain with lower incidence in patients with SMD.

Table 2 compares between the 2 groups regarding the extend of intra-nasal crustations. ere was a statistically signi cant di erence (P=0.02) between the two groups regarding the mild and moderate crustations (P=0.02 and P=0.07 respectively), with a lower incidence in patients with SMD.

Table 2 compares between the 2 groups regarding the improvement of nasal obstruction with no statistically signi cant di erence between the two groups.

ere was a complete absence of nasal pain in both groups a er 1 month.

Table 3 compares between the 2 groups regarding the extend of intra-nasal crustations. ere was a statistically signi cant di erence (P=0.01) between the 2 groups regarding the presence of mild intra-nasal crustations a er 1 month.

Table 3 compares between the 2 groups regarding the improvement of nasal obstruction with no statistically signi cant di erence between the 2 groups regarding the post-operative improvement of nasal obstruction a er 1 month.

groups regarding the degree of post-operative tissue healing. ere was no statistically signi cant di erence between the 2 groups regarding post-operative tissue healing a er 1 month.

ere was a complete absence of nasal pain in both groups a er 3 months post-operatively.

Table 4 compares between the 2 groups regarding the extend of intra-nasal crustations. ere was no statistically signi cant di erence between the 2 groups regarding the post-operative intra-nasal crustations a er 3 months.

2 groups regarding the improvement of nasal obstruction. ere was no statistically signi cant di erence between two groups regarding the post-operative improvement of nasal obstruction a er 3 months.

groups regarding the degree of post-operative tissue healing. ere was

no statistically signi cant di erence between the 2 groups regarding post-operative tissue healing a er 3 month.

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Nasal obstruction is one of the commonest chronic symptoms encountered in otolaryngology. In most patients the cause is either septal deviation or inferior turbinate hypertrophy due to vasomotor

	Partial inferior turbinectomy N=25	Submucosal diathermy N=25				
	N (%)	N (%)	P value			
Nasal obstruction						
No improvement	0 (0%)	0 (0%)	1.00			
Partial improvement	2 (8%)	5 (20%)	0.4			
Complete improvement	23 (92%)	20 (80%)	0.4			
Pain						
• Mild	5 (20%)	14 (56%)	0.02			
Moderate	12 (48%)	11 (44%)	1.00			
· Severe	8 (32%)	0 (0%)	0.01			
Crustation						
Absence of crustations	0 (0%)	2 (8%)	0.5			
 Mild crustations 	20 (80%)	11 (44%)	0.02			
Severe crustations	5 (20%)	12 (48%)	0.07			

Table 2: Comparison between both groups at 2 weeks of postoperatively.

	Partial inferior turbinectomy	Submucosal diathermy	P value
Crustation			(0.01)

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rhinitis or allergic rhinitis. e hypertrophy of the inferior turbinate is either due to increased thickness of the medial mucosal layer which could be attributed to the hypertrophy of the lamina propria that houses sub-epithelial in ammatory cells; venous sinusoids and submucosal glands or it could be due to an increase in the size of the bony structure of the inferior turbinate. Surgical treatment is controversial. and variety of surgical procedures is performed for managing inferior turbinate hypertrophy, but there is no completely e ective therapy [9]. Surgical reduction of the turbinate can be performed by several di erent techniques [10]. Partial inferior turbinectomy is a procedure directed at relieving nasal, ere are various studies which had shown that partial inferior turbinectomy is as e ective procedure in relieving nasal obstruction as total inferior turbinectomy with success rate ranging from 70 to 80% [11]. However partial inferior turbinectomy should be performed cautiously in order to protect anatomical structures and physiological functions of nose Monopolar diathermy is an old technique for the reduction of sub-mucosal tissue of the inferior turbinate, but still widely practiced [9]. e e ect of Submucous diathermy is achieved through coagulation of the venous sinusoids within the turbinate, leading to sub- mucosal brosis [9]. Although turbinate tissue volume reduction by various techniques leads to shrinkage of the turbinate size, however the epithelial changes of chronic hypertrophic turbinate remains more or less unaltered [9]. Our study results showed that subjective feeling of nasal obstruction was persisted for 2 weeks with no signi cant di erence between the is non-signi cant di erence was persisted for 3 months 2 groups. postoperatively. Our results were di erent from the results of that the subjective results of nasal obstruction is better in patients with PSIT than patients with SMD, however they also documented that the proper bene t of nasal air ow in SMD is achieved a er 2 months, while the dramatic response is obtained within only 2 weeks postoperatively in patients who had inferior turbinectomy. Tables 5 and 6 compare our results with the published data regarding the degree of nasal obstruction. Salzano et al. reported in their study that 20% of SMD group had moderate

represents a relatively small sample of patients, with the use of only subjective assessment parameters, however this study may open a new era for multi-institutional study with more objective assessment parameters of nasal air ow and longer duration of follow up.

References

- Farmer SE, Eccles R (2006) Chronic inferior turbinate enlargement and the implications for surgical intervention. Rhinology 44: 234-238.
- Marieb EN (2003) Essential of Human Anatomy and Physiology. (7th edition). Benjamin Cummings, San Francisco.
- Salzano FA, Mora R, Dellepiane M, Zannis I, Salzano G, et al. (2009) Radiofrequency, high-frequency, and electrocautery treatments vs partial inferior turbinotomy: microscopic and macroscopic effects on nasal mucosa. Arch Otolaryngol Head Neck Surg 135: 752-758.
- Hammad MS, Gomaa MA (2012) Role of some anatomical nasal abnormalities in rhinogenic headache. Egyptian Journal of Ear, Nose, Throat and Allied Sciences 13: 31-35.
- Anil H, Mahjabeen B (2014) Comparative Study Between Partial Inferior Turbinectomy and Submucosal Diathermy in the Management of Inferior Turbinate Hypertrophy. G M 3: 2277-8179.
- Fradis M, Malatskey S, Magamsa I, Golz A (2002) Effect of submucosal diathermy in chronic nasal obstruction due to turbinate enlargement. Am J Otolaryngol 23: 332-336.

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- Lund VJ, Kennedy DW (1995) Quantif cation for staging sinusitis. The Staging and Therapy Group. Ann Otol Rhinol Laryngol Suppl 167: 17-21.
- Gindros G, Kantas I, Balatsouras DG, Kandiloros D, Manthos AK, et al. (2009) Mucosal changes in chronic hypertrophic rhinitis after surgical turbinate reduction. Eur Arch Otorhinolaryngol 266: 1409-1416.
- Azeem QA, Khalil H, Barlas NB (2002) Is total inferior turbinectomy a reliable answer for nasal obstruction caused by hypertrophied inferior turbinates. Pak Postgrad Med J 13: 120.
- Ross DA, Nguyen DB (2004) "Inferior turbinectomy in conjunction with septodermoplasty for patients with hereditary hemorrhagic telangiectasia" Laryngoscope 114: 779-781.