
Evaluation of coblation technology in comparison to electrical diathermy for inferior turbinate volume reduction using the electron microscope

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Summary This study was conducted on 30 patients who were presented to the E.N.T. out patient clinic In Benha University Hospital and they were complaining of persistent bilateral nasal obstruction (during the period from March 2004). Nasal obstruction is the presenting complaint of a large number of patients in F.N.T. clinic patients. Inferior turbinate hypertrophy has a major etiologic role in such obstruction. Submucous diathermy of the inferior turbinate is a widely practiced procedure in the reduction of inferior turbinate size for a long time. Recently, Coblation technology has been introduced for the reduction of inferior turbinate size as a safe technique for the adjacent tissues. This work has been designed to compare the nasal function using both techniques clinically, by saccharin test ultrastructurally by the electron microscope regarding efficacy and safety. The two techniques were used for each patient included in the present study (right side: coblation and left side: submucous diathermy). ,alter and their Post operative clinical assessment showed no difference in pain between both techniques, faster improvement in nasal obstruction in the right side (coblation side), more crusts formation in the left side (submucous diathermy side). Regarding saccharin test; results from both nasal sides showed elevation in their duration after the first \ postoperatively. The right side showed faster improvement (decrease in duration) than that of the left side. Regarding the ultrastructure; nasal biopsy from the right nasal turbinates showed mild to moderate cellular damage and those from the left nasal turbinates showed severe cellular damage.