Introduction

Chronic nasal obstruction is one of the commonest complaints made by the patients to their otorhinolaryngologists. ***(Saunders, 1982)***

Although nasal obstruction is not life threatening, it is still quite an annoying problem for the patient. Nasal obstruction deteriorates the quality of the life by causing discomfort and interference with the sense of smell and taste. ***(Ranjan et al 2009)***

Various factors as structural abnormalities, mucosal swelling, hyperactivity and sometimes psychological factors can cause nasal obstruction. Nasal septal deviation and turbinate hypertrophy are by far the most common causes of nasal obstruction ***(Gordon et al, 1989)***

If septal defects are excluded, the main structures contributing to the nasal obstruction are the nasal turbinates, especially the inferior turbinates ***(Passali D et al , 2003)***

Certain chronic inflammatory nasal disorders, such as allergic or vasomotor rhinitis, result in turbinate hypertrophy as a result of collagen deposition beneath the basement membrane of nasal mucosa as well as mucous gland hyperplasia and hypersecretion. ***(Gupta A et al, 2001)***

Although medical therapies such as intranasal sprays/systemic medication and allergic desensitization are currently available; they are often ineffective ***(Ophir D, et al 1985)***

In cases of non response to conservative medical management, the surgical reduction of the inferior turbinate is required. ***(Ferri E et al, 2003)***

Surgery of the inferior turbinate should be performed only after a trial period of medical treatment **(Mabry,1984)** .turbinectomy is the operation of choice for relief of nasal airway obstruction**(Moore et al 1985)** .Surgical reduction of inferior turbinate remains controversial subject and no single technique gives complete effective results**(Salam and Wengraph,1993).**An example of these procedures; sub mucosal diathermy **(Richardson, 1948),**Sub mucosal resection of the inferior turbinate**(House,1951),**Partial inferior

turbinectomy**(Saunders,1982),**Total inferior turbinectomy **(Martinez et al ,1983)**,Laser turbinectomy**(Selkin,1985),**Cryosurgery **(Principato,1979),**Radiofrequency turbinate reduction **(Li et al ,1998)**and Microdebrider turbinate reduction**(Freidman et al,1999).**

The conventional surgical inferior turbinectomies are associated with many complications including haemorrhage requiring nasal packing, infection, adhesions and persistent post operative obstruction secondary to oedema and crusting. ***(Dawes, 1987)***

Now there is a trend towards less invasive techniques that can potentially be performed in clinic setting, rather than in operating room. ***(Change et al, 2004)***

Radiofrequency energy (electromagnetic waves) has been used for many years to ablate tissue in a variety of medical fields. Cardiologists, Urologists and Neurologists have all used similar technology in different application. Examples include ablation of aberrant conduction pathways in arrhythmias**(Jackman et al ,1991),**trans urethral needle ablation for benign prostatic hypertrophy **(Issa and osterling,1996),**endometrial ablation for dysfunctional uterine bleeding**(Dequesne et al,1997),**correcting ligaments laxity in chronic joint sublaxation **(Lopez et al,1998),**reducing tissue volume of the tongue and palate for sleep disordered breathing**(Powel et al ,1998)**

Recently, investigators have reported the use of radiofrequency energy for sub mucosal tissue ablation in the inferior turbinate as an effective, less morbid alternative to the traditional surgical means of turbinate reduction. Radiofrequency energy delivered submucosally in the inferior turbinate creates a thermal lesion (80c) yet preserves the mucosa. The circumscribed area of the normal repair process. Wound contraction results in turbinate volumetric reduction, leading to relief of nasal obstruction **(Utely, 1999)**

The procedure is a safe, effective outpatient technique that does not require nasal pack or expensive instrumentation. The procedure can be repeated, if necessary, according to the patients need **(Elawny et al, 1999)**