Background

- The nerve of the pterygoid canal (Vidian nerve) is formed by the union of pre-ganglionic parasympathetic fibers of the greater petrosal nerve and the post-ganglionic sympathetic fibers of the deep petrosal nerve. The greater petrosal nerve synapses at the pterygopalatine ganglion. Efferent fibers provide secreto-motor stimulus to the lacrimal gland and nasal mucosa.

- Vasomotor rhinitis is the most common form of chronic non allergic rhinitis, clinical presentations include nasal obstruction, postnasal drip, itching, redness, clear rhinorrhea, and watery eyes. It has been thought to result from an imbalance in the autonomic input to the nasal mucosa, with increased parasympathetic stimulation without adequate sympathetic balance.

- Vidian Neurectomy aims to disrupt this autonomic supply with reduction in nasal symptoms and is usually offered as a last resort to non-allergic rhinitis patients with persistent and disabling symptoms refractory to maximal medical therapy. Symptoms significantly affects patients quality of life and cognitive impairment.

Materials and Methods

- Five consecutive patients (3 Females and 2 Males; mean age 42.5y; range 31-46y) who presented to the ENT clinic with non-allergic rhinitis with persistent and disabling symptoms refractory to maximal medical therapy is subjected to bilateral Vidian Neurectomy. A total of 10 procedures were performed using a standardized surgical technique. Pre and post-operatively SNOT 20 scores, subjective complaints and Schirmer’s Test was done for symptom evaluation.

Surgical Procedure

- Mucosal incision same as in SPA Ligation. Need to identify SPA and branches, then cauterize them, Identify anterior face of Sphenoid sinus and Identify Pharyngeal Nerve (branch of PPG) travelling into PVC. Clear visualization and positive identification of the Vidian Nerve is advocated then only section the nerve and cauterize with Bipolar diathermy, bone wax or gelfoam was packed to prevent nerve regeneration. The procedure was performed bilaterally.

Results

- A total of 10 procedures were done. All patients reported significant improvement in rhinorrhea, sleep and psychological functions after 3 months of follow-up. Palatal numbness was the most subjective complaint by the patients. Schirmer’s test performed at 3 months showed mild to moderate dry eyes in most patients. However, it resolved after 3 months of follow-up. Pre (blue) and post operatively (red) SNOT 20 scores showed tremendous improvement as shown in diagram 1.

Conclusion

Endoscopic Vidian Neurectomy does have a significant and important role in the surgical management of refractory rhinitis. Endoscopic visualization of the vidian nerve and better comprehension of the anatomy has enabled us to precisely locate and transect the vidian nerve. All of our patients had showed vast improvement in their rhinology, sleep and psychological symptoms.

Reference

2. Clinical and Experimental Otorhinolaryngology Vol. 3, No. 4: 212-216, December 2010