

Effects of Radiofrequency in a Rare Fibroma of the Tonsil**Mehmet Akdag***

*Dicle University Medical School, Department of Otolaryngology, Head & Neck Surgery

Abstract

Benign neoplasms of the tonsillar region are rare, and tonsillar tumors can be of epithelial or mesenchymal origin. Fibromas originate from the mesenchymal tissue, and to the best of our knowledge, there are few published reports of fibroma of the tonsil. Treatment for these fibromas should be performed using excisional biopsy. There are different surgical methods used to accomplish this, including cold knife, electric scalpel, laser and radiofrequency, the last of which provides a new surgical tool. This report describes a 42 year-old female undergoing radiofrequency surgery for a tonsillar mass, and a postoperative pathology presenting as a tonsillar fibroma.

Key Words: fibroma, neoplasm of the tonsil, radiofrequency

Corresponding Author

Assist. Professor Mehmet Akdag, MD

Dicle University Medical School, Department of Otolaryngology, Head & Neck Surgery
Diyarbakir, Turkey, Mail address: drmehtmetakdag@hotmail.com

Introduction

Benign neoplasms of the tonsillar region are rare, and fibromas of the upper respiratory tract have been recorded in the nasal cavity, pharynx and larynx, buccal mucosa, tongue, palate and tonsil. Tonsillar tumors can be seen frequently as benign epithelial tumors, including papillomas, keratoacanthomas, and pleomorphic adenomas. Those tumors of connective tissue origin include fibromas, schwannomas, lipomas, myxomas, chondromas, hemangiomas, and lymphangiomas. True fibromas of the oral cavity are rare, and to the best of our knowledge, there are few published reports of fibroma of the tonsil (1-2).

Fibromas (fibroid tumors, fibroids) are benign tumors that are composed of fibrous tissue and are very rarely seen in the oropharynx (2-4). Fibromas can occur in people of any age and either sex, but they are most often seen in adults, in various sizes. If there is an increase in the diameter of the mass or pain, surgical treatment is an option. There are different methods of surgery to treat fibromas, including cold knife, electrical scalpels, laser and radiofrequency (RF).

Fibroma of the tonsil has been reported rarely, and surgical removal using RF has been even less documented in the literature. The aim of this paper is to describe the clinical surgery and the

histopathological features of this rare lesion.

Case report

A 42-year-old female presented with a 6 month history of odynophagia and a foreign-body sensation in the throat.

There was no history of tonsillitis. Upon examination of the throat, a pale pink, smooth, polypoidal, pedunculated mass was found arising from upper pole of the right upper palatine tonsil, measuring 1x1 cm (**Figure 1**).



Figure.1 preoperative view of mass of tonsilla

Swallowing was “safe” upon palpation; additionally, the remaining tonsillar tissue and left tonsil were normal. The laryngoscopic and nasopharyngoscopic views were normal, and there were no enlarged cervical lymph nodes. The hemogram showed normal parameters for the leukocytes and erythrocytes, and the patient had no additional complaints or diseases.

The right mass was removed from the surrounding tissues using thermal radiofrequency energy under general anesthesia for diagnostic and therapeutic purposes. We used the G3 Gyrus radiofrequency generator (Gyrus ENT, ACMI, An Olympus Company), without complication, and no additional treatment was necessary (**Figure 2**).



Figure.2 Postoperative view of tonsilla

The mass (**Figure 3**) was sent for histopathological examination, and postoperative pathology presented as a tonsillar fibroma. Gross examination showed a pale pink, firm growth with a homogenous appearance. Microscopic

examination of the growth showed spindle-shaped benign cells with collagen arising from the tonsil. This patient was followed up postoperatively, and after a 2 year follow-up, the patient was asymptomatic with no residua or recurrence.

**Figure.3**The specimen that removed**Discussion**

Pure benign neoplasms of the fibrocyte are rare in any part of body. A fibroma may vary greatly in size, and be pedunculated or stalked-sessile, pale pink and hard upon palpation, containing fibrocytes. Fibromas consist of epithelium that is soft and circular or polyp-shaped, and the volume can often reach a very large size. When the term fibroma is used without a modifier, it is usually considered to be benign.

There were few fibromas of the tonsillar region reported in the literature. In 1931, New and Childrey (5) reported 63 cases of benign tumors of the tonsil and pharynx, which were observed at the Mayo Clinic from 1917 to 1930 (inclusive). In 1933, Hara (5) reviewed the literature and listed 26 cases, to which he added one. Therefore, there appeared to be less

published from the long-term data regarding the fibroma of the tonsil.

Fibromas can occur in people of any age and either sex, but they are most often seen in adults. The present case was 42 years old, falling into middle age, and our case was followed for approximately 2 years without recurrence. Treatment should be performed via excisional biopsy, and often it is difficult to decide whether to excise only the mass or complete an entire tonsillectomy. We chose to take only the mass since it appeared obviously separate from the tonsillar parenchyma in a non-infiltrating view.

Another important point of this paper includes the method chosen for surgery. Cold knife, electric scalpel, laser or radiofrequency (RF) could have been chosen, however RF provides a new surgical tool for this procedure. The frequency range is defined as 315 kHz-480

kHz for the radiofrequency (RF), which is designed as the medium frequency (5). This range represents one of several conventions used in defining this part of the electromagnetic spectrum, and over the last decade RF has been frequently used for head and neck surgery, etc. We used RF thermal energy for mass extirpation, due to the considerable decrease in hemorrhage and pain intensity, and the effectiveness and simplicity of this method.

Most often, fibromas of the tonsil are asymptomatic, but may manifest as odynophagia and a foreign-body sensation in the throat, or soreness, as in our case (2-5). Excision with RF is the usual mode of treatment in symptomatic cases and the incidence of recurrence is not well documented. Additionally, RF is simple and comfortable for the patients.

Conclusion

This case was reported to present an awareness of such a rare, benign lesion of the tonsils. Additionally, it describes the use of RF safely in tonsillar surgery.

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