A CASE REPORT OF BENIGN FIBROUS HISTIOCYTOMA OF PARANASAL SINUSES AND ROLE OF TRANSNASAL ENDOSCOPY IN ITS TREATMENT

M. H. Baradaranfar[*1] and M. Moghimi[2]

1) Department of Otolaryngology and Head and Neck Surgery, School of Medicine, Yazd University of Medical Sciences, Yazd, Iran

2) Department of Pathology, School of Medicine, Yazd University of Medical Sciences, Yazd, Iran

Abstract- Benign fibrous histiocytoma is a rare tumor of nose and paranasal sinuses that originates from histiocytes. The main symptoms of patients are nasal obstruction and nasal mass. Our patient was presented with chief complaints of nasal obstruction and rhinorrhea non responsive to antibiotic treatment. In computed tomography scan a giant mass in left maxillary sinus and ipsilateral nasal cavity was seen. After en bloc resection of tumor by transnasal endoscopic approach all of patient's symptoms were alleviated. The pathologic report was benign fibrous histiocytoma. Because of excellent visualization, it seems that transnasal endoscopic approach is the method of choice for resection of these benign tumors.

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Key words: Benign fibrous histiocytoma, paranasal sinus tumors, endoscopic surgery

INTRODUCTION

Benign fibrous histiocytoma is a nonepithelial tumor with fibroblastic and histiocytic differentiation (1, 2). It originates from histiocytes and also is known as dermatofibroma, sclerosing hemangioma, xanthogranuloma, fibroxanthoma and nodular subepidermal fibrosis (2, 3). It is more frequent in males and its peak incidence is in the fifth decade (2, 4). In physical examination, it is polypoid or nodular and brown to yellow, with a variable size.

Although it can be found anywhere in the body, the most common site is iliac bone; occurrence in the paranasal sinuses is rare (5, 6). In nose and paranasal sinuses, it is manifested by nasal obstruction, nasal mass, nasal bleeding, and pain in nose and paranasal sinuses. In larynx and trachea, bloody sputum, dyspnea, and stridor are seen (4).

Here we report a rare case of benign fibrous histiocytoma of paranasal sinuses.

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*** Corresponding Author:**
Department of Otolaryngology and Head and Neck Surgery, School of Medicine, Yazd University of Medical Sciences, Yazd, Iran
Tel: +98 351 8224000
Fax: +98 351 8224100
E-mail: baradaranf@ hotmail.com

CASE REPORT

A 49 years old housewife from Maybod was presented with nasal obstruction, posterior nasal discharge, dyspnea and watery rhinorrhea of one-year duration that had worsened despite of many courses of antibiotics treatment. A septoplasty operation was canceled due to excessive bleeding during operation, and the patient was referred to Shahid Rahnemoon Hospital.

In physical examination of the left nasal cavity, adhesion of septal mucosa to lateral wall was found. Inferior turbinate was polypoid. A large nodular mass was also present. Nasal mucosa was pale and watery secretions were present. Examination of cranial nerves was normal. No other physical finding was present and routine laboratory tests were within

normal limits.

In coronal computed tomography scans of paranasal sinuses there was a large mass in the left maxillary sinus and the left nasal cavity with extension to nasopharynx. Its density was homogenous and similar to antrochoanal polyp. No bony erosion was present (Fig. 1). Under general anesthesia, with transnasal endoscopy, the tumor was removed en bloc; anterior and posterior ethmoidectomies, middle meatus antrostomy, sphenoidotomy, and ipsilateral frontal recess dilatation were performed and the tumor was sent for pathology examination (Fig. 2). In microscopic examination, a submucosal tumor consisting of rotating bundles of fibroblasts was present. Mitosis was rare. Vessels with thick walls, areas of fibrosis and hyalinization and tumor extension around ducts and glands were seen. Tumor surface was lined by respiratory ciliated epithelium with chronic and acute inflammation. With regard to these findings, the pathology report was benign fibrous histiocytoma.

DISCUSSION

Fibrous histiocytoma is a soft tissue tumor (1, 2). It is rare in nose and paranasal sinuses and only a few cases have been reported (5, 6). Basak *et al.* have reported a nasal septum fibrous histiocytoma. The patient was a 45 years old man with nasal obstruction. In physical examination a 2 × l × l cm mass was found on the anterior septum in the right nasal cavity (7).

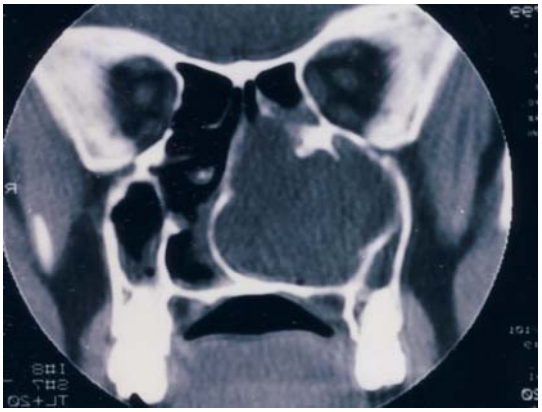

Fig. 1. Preoperative coronal CT scan of the patient.

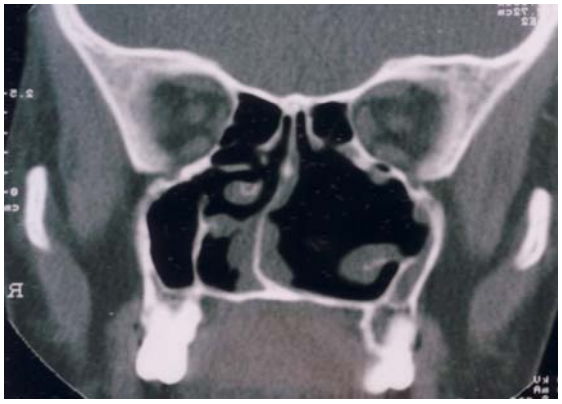

Fig. 2. Postoperative coronal CT scan of the patient.

Shrier *et al.* have reported a nasal cavity fibrous histiocytoma in a newborn. They have stated that fibrous histiocytoma in neonates is very rare (8).

FH is more common in males and its peak incidence is in the 5th decade (2, 4). Clinical signs depends on site of tumor and includes nasal mass, nasal obstruction, nasal bleeding, pain, asymmetry of face, proptosis, dental flattening, bloody sputum, dyspnea and stridor. Macroscopically the tumor is polypoid or nodular and light brown to yellow and variable in size. Histologically, it is a submucosal tumor, consisting of fibroblasts and histiocytes in rotating or fasciculated bundles, inflammatory cells, multinucleated giant cells and foam cells. There are collagen deposits in stroma with hyaline and myxoid areas. Frequent mitoses and especially atypical ones are signs of malignancy. Nodular fascitis, benign peripheral nerve sheet tumors (neurofibroma, schwannoma), leiomyoma, dermatofibrosarcoma, malignant histiocytoma must be included in differential diagnosis (4). Complete surgical removal of tumor is the definite treatment (4, 5).

In conclusion, fibrous histiocytoma must be considered in differential diagnosis of nasal and paranasal sinus polyps. In this case, physical examinations and radiologic studies were in favor of nasal or sinus polyp, emphasizing the necessity of pathologic examination in all nasal and sinus masses. In addition, early diagnosis decreases complications. Meanwhile, the pathologist should consider these rare tumors, because in addition to rarity, it is also a difficult pathologic diagnosis. It seems that endoscopic transnasal surgery is the treatment of choice by providing excellent visualization enabling the surgeon to completely remove the tumor.

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