CASE REPORT

Intermittent Respiratory Obstruction Secondary to a Solitary Fibrous Tumour

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Summary

There have been fourteen cases of solitary fibrous tumour reported as originating from the paranasal sinuses. Here we report a case of solitary fibrous tumour that involved the right nasal cavity with extension into the oropharynx causing stertor and intermittent respiratory obtruction. Histopathology examination revealed the tumuor cells expressed CD34 tumour marker.

Key Words: Solitary fibrous tumour, Paranasal sinuses, Respiratory obstruction

Case Report

A forty nine year male presented with right nasal obstruction for the last one year and subsequently bilateral nasal obstruction for the past five months. He had been seeking traditional Chinese medical treatment for his symptoms for the past one year. He decided to seek a medical opinion because he had been having shortness of breath on lying down and dysphagia to solids.

Physical examination revealed an emaciated man who had stertor and who was a chronic mouth breather. There was a pale mass occupying the right nostril, which was non tender and was pushing the nasal septum to the left. Clinical examination revealed a reddish mass occupying the whole nasopharynx extending into the oropharynx. The soft palate and uvula was pushed anteriorly. A rigid nasal endoscope could only pass through the left nostril, which revealed a mass occupying the whole nasopharynx.

A coronal CT scan of the paranasal sinuses demonstrated a large mass extending from right maxillary antrum into the right nasal cavity and posteriorly into the nasopharynx and oropharynx. It measured 8cm by 4cm by 8.5cm. There was no bony erosion seen (Figure 1). A preliminary diagnosis of right antrochoanal polyp was made.

With the patient under general anesthesia a nasal endoscopic approach was used for excision of the lesion. Operative findings revealed to be a naturally widened right maxillary ostium and the lesion was removed/avulsed from its base which was attached to the medial wall of the maxillary sinus. A wide middle meatal antrostomy was made using the Stamberger back biting forceps and the maxillary cavity was cleared of the lesion using an ethomoidal punch forceps. Throughout the surgery rigid nasal endoscope of 0, 30 and 70 degrees were use for visualization. The mass was adherent to the nasopharygeal surface of the soft palate and the posterior pharyngeal wall. This attachment was released by blunt dissection. Radio frequency wave ablation was used to split the tumour mass into two in the oropharynx for easy delivery via the oral cavity. It measured 6cm by 11cm by 10cm in whole and was a dense white rubbery mass. The postoperative period was uneventful and the patient has remained free of tumour for the last one year. Rigid

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nasal endoscopy done on the last follow up at six months post surgery showed a patent nasal cavity, a large maxillary antrum with a normal looking maxillary sinus mucosa with no evidence of crusting.

Histopathologically the lesion consisted of a proliferating spindle shaped cell arranged in fascicles and vague whorls (Figure 2). It was surrounded by oedematous fibro-vascular tissue. Mitosis was infrequent (less than 1 x 10 high power field). The lesions cell expressed Vimentin and CD34 but not actin, desmin, S100 protein, EMA and GFAP. A diagnosis of solitary fibrous tumour (SFT) was made.

Discussion

In 1931, SFT was described as a primary spindle cell tumour of the pleura[1]. This tumour which was initially described in the pleura has seen an increase in reporting in the extra pleural site such as the peritoneum, lungs, liver and upper respiratory track[1]. Recent immunochemical and ultra structural studies however indicated that these tumours arise from a submesothelial mesenchymal fibroblast like cell[2]. Vimentin is a non-specific marker as most mesenchymal neoplasms and many epithelial neoplasm express it[2]. Histopathological expressions of CD34 has been suggested as a specific marker of SFT2. Aggressiveness is usually associated with large tumours, hypercellularity, increase mitosis, pleomorphism and necrosis. Of the 14 cases reported in the paranasal sinuses, none were reported to be malignant.

Histologically the differential diagnosis may be hemangiopericytoma, schwanoma, fibrous histiocytoma, fibrosarcoma or nasopharygeal angiofibroma. The diagnosis of SFT extrapleurally is one of exclusion.

Literature review shows no reported cases of SFT extending up to the oropharynx, causing the patient to have dysphagia to solids and intermittent respiratory obstruction. The mean age of patients in the literature report is 50 years and there were seven females and five males patients all together[3]. The occurrence of solitary fibrous tumour in the paranasal sinuses is rare. They are generally described as none aggressive[3].

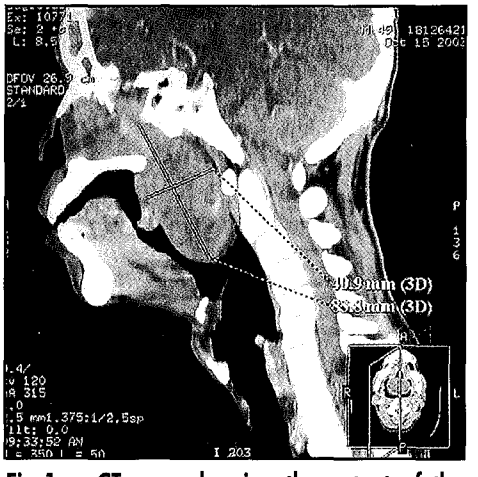

Fig 1: CT scan showing the extent of the Nasal Solitary Tumour

Fig 2: Histopathology Examination (HPE) with CD 34 staining

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