Rare disease

Tumefactive fibroinflammatory lesion: a rare aetiology for a neck mass in an old Iranian man

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Summary

Tumefactive fibroinflammatory lesion (TFIL) is a rare idiopathic, histologically benign appearing, tumour-forming fibrosclerosing lesion that clinically simulates a malignant neoplasm. There have been limited case reports of TFIL in foreign literature but none from Iran. Here, the authors report a case of TFIL in a 73-year-old Iranian man.

BACKGROUND

Tumefactive fibroinflammatory lesion (TFIL) is a term that has been applied to describe fibrosclerosing disorders occurring in the head and neck.¹ It is believed that Rice *et al*² have described the first case of fibrosclerotic lesion in the soft tissue of the neck in 1975 and called it sclerosing cervicitis. Histologically identical lesions were subsequently reported involving parotid gland,³ the nasal and paranasal sinus,⁴

maxillary antrum and infratemporal fossa.⁵ This lesion clinically simulates a malignant neoplasm, but is histologically benign. Its histopathologic appearance is nearly identical to that of fibrosclerotic lesions of the mediastinum and retroperitoneum and Riedel's thyroiditis.¹ The aetiology is unknown and the optimal treatment remains controversial. We report an additional case of TFIL of the head and neck, which were misdiagnosed as malignant thyroid tumour.

Figure 1 Proliferating fibrous tumour with bands of collagen.

Figure 2 Prominent inflammatory infiltrate in TFIL.

CASE PRESENTATION

A 73-year-old man presented with an enlarging mass in the left anterior neck that had been slowly growing for 3 months. The patient was otherwise healthy with no other pertinent medical history. Physical examination revealed an afebrile old man with a 6×3×3 cm mass left of mid-line in the anterior neck, with mild overlying erythema. The mass was firm, mobile and non-tender. CT-scan of the neck demonstrated a 4×4 cm heterogenous, contrast-enhancing, soft tissue mass involving the entire left thyroid lobe. Laboratory data were within normal limits. The clinical impression was thyroid carcinoma. The patient underwent surgery and frozen section was done. Frozen sections result was suspicious for malignancy. So, most of this mass was excised. Macroscopically, the lesion was firm and grey-tan. Histologically, the lesion was composed of proliferating fibrous tissue, band of hyalinised collagen and prominent inflammatory infiltrate consisting mostly of lymphocytes and plasma cells which characteristically were encasing the vascular and neural structures. There was mild cellular pleomorphism, the mitoses were

scarce and invasion of surrounding soft tissue was noted (figures 1 and 2). These histological features were consistent with TFIL of the head and neck. Subsequently, the patient underwent evaluation for other coexisting forms of fibrosclerosing lesions but none were found.

DIFFERENTIAL DIAGNOSIS

The differential diagnosis of TFL consist of

- ▶ Inflammatory myofibroblastic pseudotumours
- ▶ Fibromatosis
- ▶ Malignant fibrous histiocytoma
- ▶ Fibrosarcoma.

TREATMENT

Owing to old age and absence of any clinical symptoms, the patient did not receive any treatment.

OUTCOME AND FOLLOW-UP

In the 8-month follow-up, the patient was well without any complaint, and had no external evidence of recurrence.

DISCUSSION

TFIL of the head and neck is a rare disorder of obscure aetiology. Approximately 30 cases have been described to date.^{3–11} A TFIL has been reported to involve almost every anatomic area in the head and neck region including parotid and submandibular gland, maxillary sinus, nasal area, orbit, tongue base, face and neck with the sino-nasal region and neck being the most frequently involved areas.^{3–11} Coexisting fibrosclerosing process have also been seen in approximately 20% of cases, including retroperitoneal fibrosis, sclerosing cholangitis, sclerosing mediastinal fibrosis and orbital pseudotumours. The patients have ranged in age from 10 to 74 years old with the majority presenting in the fifth or sixth decade. There is a slight male predominance. A TFIL typically presents as an enlarging mass that frequently is painful. Radiographic studies often show a destructive process and the initial clinical impression is one of a malignant process.¹² Histologic differential diagnosis of TFL is primarily related to the more commonly encountered fibrous lesions of head and neck. Inflammatory myofibroblastic pseudotumours especially the hyalinising variant should be considered in the differential diagnosis of a TFIL. However, unlike TFLs they are usually well circumscribed and do not invade adjacent tissue. Nodular fasciitis is more cellular, showing microcystic change, often contains abundant mitoses and usually lacks a prominent inflammatory infiltrate. Fibromatosis consists of long sweeping cellular fascicles of fibroblastic cells with only patchy chronic inflammatory cell infiltrates. The last group of fibrous lesion more commonly seen in the head and neck area includes the malignant fibrous histiocytoma¹³ and fibrosarcoma.¹⁴ TFIL is infiltrative but it lacks the dense cellularity, cellular atypia and mitotic activity of a sarcoma. The clinical diagnosis of TFIL is difficult. The clinical and radiographic appearances can be misleading such as our case being misdiagnosed as thyroid carcinoma. Furthermore, the lesion can be a localised manifestation of a systemic condition.¹⁵ Accordingly, the patient should be evaluated for fibrosclerosing lesions at the other sites. There is no consensus regarding the optimal treatment of the lesion. Treatment approaches have included surgery, steroid and radiotherapy used either alone or in combination with variable outcome.⁹ Because of old age, our patient underwent excisional surgical approach and he is well now.

Learning points

- ▶ TFLs are rare benign, but locally invasive, fibrosclerosing disorders that resemble malignant lesion on initial assessment.
- ▶ The diagnosis of TFLS is made by open biopsy.
- ▶ There is no consensus about special therapeutic approach in this rare disease.

Competing interests None.

Patient consent Obtained.

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