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CASE REPORT

Solitary fibrous tumour of palate, case report

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Abstract:

Solitary fibrous tumour (SFT) is a spindle-cell mesenchymal neoplasm, has been reported in various locations but the oral cavity is a distinctly uncommon region. Case report: a female patient, 30 years old with a painful tumour the lesion measured approximately 4 cm; computed tomography showed a heterogeneous large mass in palate extending to oral cavity preserving osseous tissue; an incisional biopsy was performed; histopathological examination demonstrated a circumscribed lesion composed mainly of hyalinized fibrous connective tissue with intermittent paucicellular and hypercellular areas and a hemangiopericytoma-like vasculature were noted. Immunohistochemically: were strongly positive for CD34, bcl-2 and vimentin but negative for S-100 protein, calponin, CD-99. CD-21, CD-23, CD-35, Fascin and EMA; a diagnosis of solitary fibrous tumor was made. The tumour was treated by complete surgical excision; no recurrence was noted at a 15-year follow-up.

Keywords: Solitary, Fibrous, Tumour, Palate.

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INTRODUCTION

Solitary fibrous tumour (SFT) is a fusion gene associated tumour of fibroblastic phenotype, with a branching vasculature, it is also known as haemangiopericytoma or giant cell angiofibroma[1], Klemperer and Rabin described his histological characteristics for the first time in 1931 as tumors of the pleura in five patients[2], since then, this type of tumor has been described in different locations, mainly in the thoracic cavity, abdominal cavity, extremities, head and neck, where they have been described as coming from the sinonasal tract, the oral cavity and the orbit[3].

The solitary fibrous tumor is a common neoplasm of the head and neck region the oral cavity is the site of highest frequency of presentation with 31% of cases, without gender predilection, with a mean age of 51 years and an age range that varies from 8 months to 94 years, has no important history as tobacco or trauma, where the median size of the tumors was 4.0 cm (range 0.4–18.0 cm)[4].

CASE REPORT

Case report: a female patient, 30 years old with a painful tumour the lesion measured approximately 4x3x3 cm; (Figure 1) of renitent consistency, red and lobed surface, It has been treated with antibiotics and analgesics without showing improvement, Personal, pathological, non-pathological and family history information asked and unimportant for the case. radiographs ware taken, it seems was not involved bone tissue. computed tomography showed a heterogeneous large mass in palate extending to oral cavity preserving osseous tissue; (Figure 2) an incisional biopsy was performed with presumptive diagnosis of salivary gland tumor vs sarcoma; histopathological examination demonstrated a circumscribed lesion composed mainly of hyalinized fibrous connective tissue with intermittent paucicellular and hypercellular areas and a hemangiopericytoma-like vasculature were noted;(Figure 3) Differential diagnosis was made with spindle cell neoplasms like: benign nerve sheath tumor leiomyoma benign fibrous histiocytoma solitary fibrous tumor nodular fasciitis low grade sarcoma, so it has been made immunohistochemistry; were was strongly positive for CD 34, (Figure 4) bcl-2 and vimentin but negative for S-100 protein, calponin, CD-99, CD-21, CD-23, CD-35, fascin and EMA; a diagnosis of solitary fibrous tumour was made. The tumour was treated by complete surgical excision;

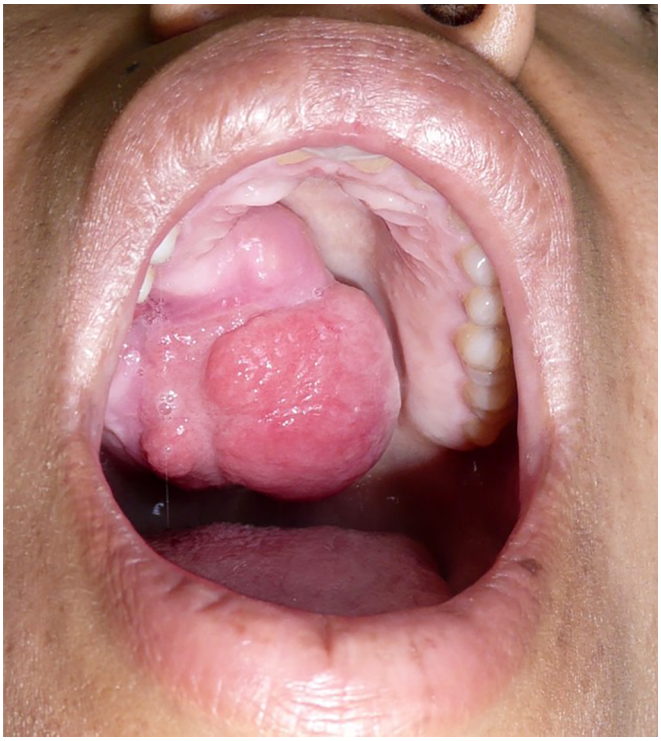

Figure 1. Clinical image.

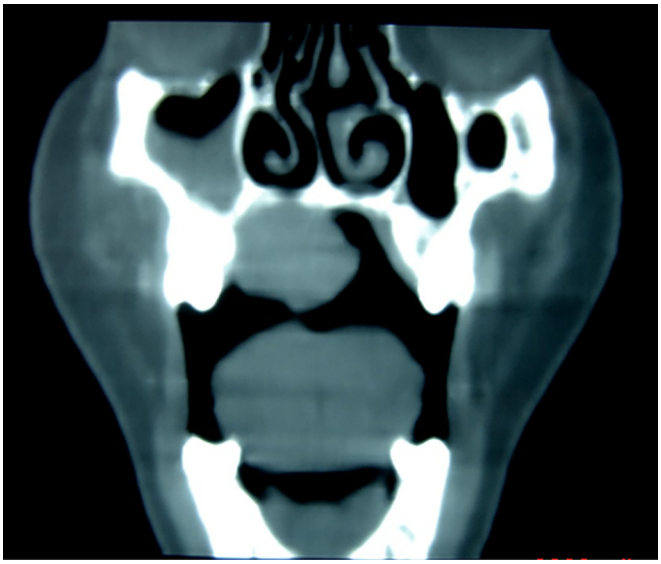

Figure 2. CT Coronal

So under general balanced anesthesia, surcular incision was made at the level of the upper left central incisor and up to the third molar of the same side, contouring the pillars anterior to the palatine bones, followed by the foveoles and the medial raphe to the premaxilla, doing hemostasis in the nasopalatine artery and major and minor palatine bundles, with Molt type deperiostizer, the dissect the tumor lesion was done

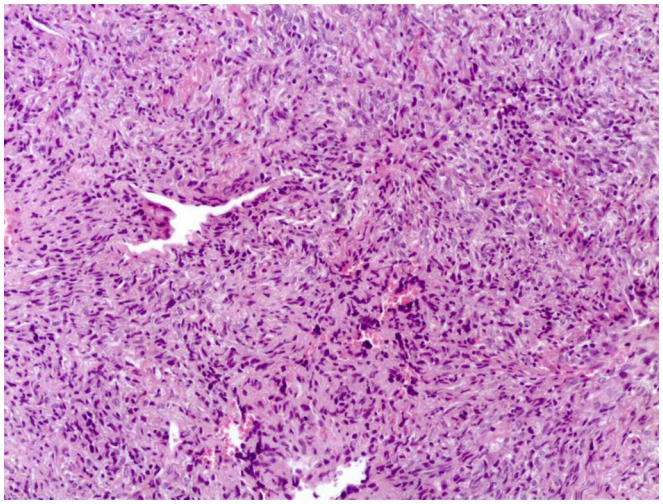

Figure 3. Histopathology HE image.

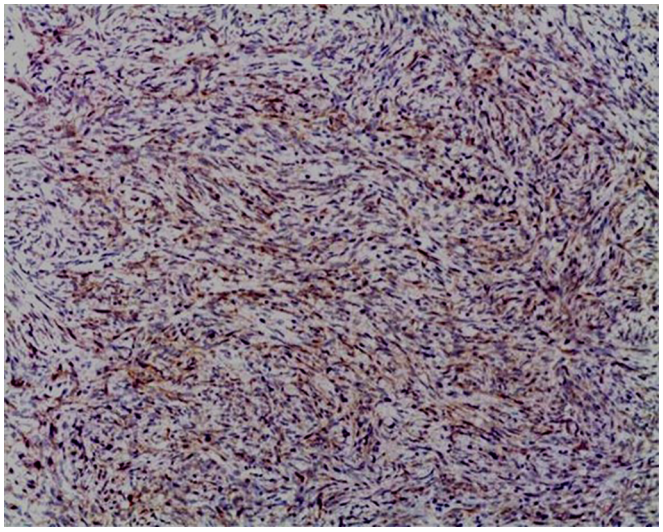

Figure 4. CD34 IHC.

enucleating the lesion, (Figure 5) the surgical wound was washed, and dried and surgical cement is placed on the wound. (Figure 6) The surgical specimen was placed in formalin and sent to histopathology (Figure 7); where characteristics similar to incisional biopsy were observed, the surgical edges were free of injury. No recurrence was noted at a 15 years follow-up.

DISCUSSION

A wide range of the differential diagnosis is made by the clinicians toward a single palatal swelling like: salivary gland neoplasms (mucoepidermoid carcinoma[5], adenoid cystic carcinomas, polymorphous low-grade adenocarcinoma, pleomorphic adenoma, myoepitheliomas), lymphomas, cavernous hemangiomas[6], tumors that arise

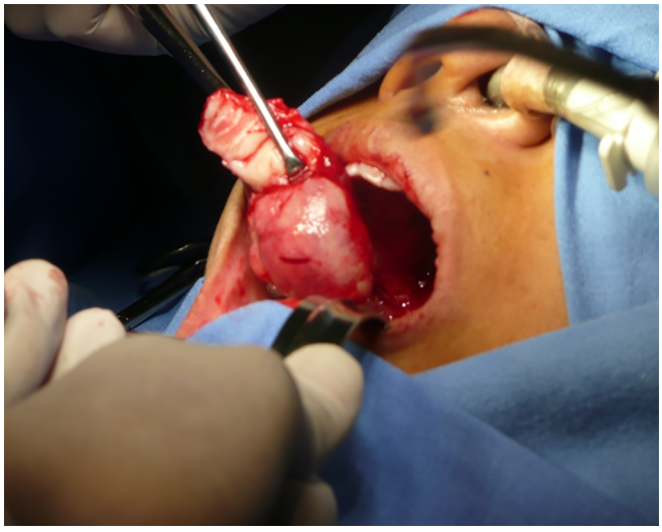

Figure 5. Surgery.

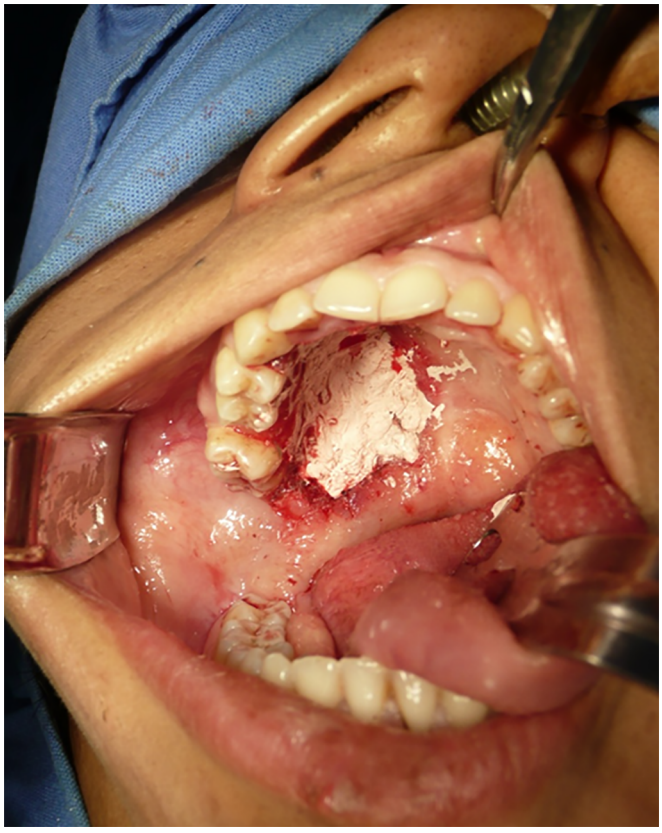

Figure 6. Surgical wound.

from the Schwann cells of the nerve sheath[7], Osteomas[8], angioleiomyomas[9], odontogenic tumors[10], lipomas[11], melanomas[12], among others.

Solitary fibrous tumors are unusual spindle cell neoplasms; This type of tumor occurs rarely within the oral cavity, but when reported, it is mostly found in buc-

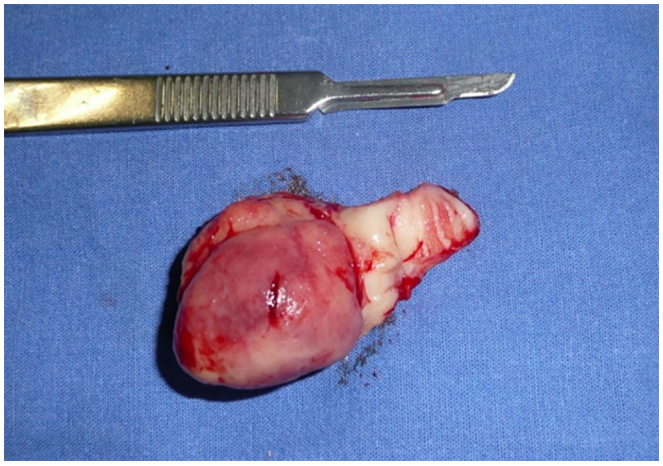

Figure 7. Surgical specimen.

cal mucosa and cheek[13], these neoplasms when they are on the palate are rare, Smith et al. (2017)[14] reviewed a series of clinical cases about SFTs of the head and neck, in this group of cases describe those of oral cavity of 13 cases, only 2 were on the palate. In another series of cases by Künzel (2016)[15] of 12 cases of SFTs, only one was on the palate.

In a series of described cases of SFT on the palate, they report that there were 3 in males, two in females, and that the size varied from 0.7 to 5 cm. all treated with surgery, three cases without recurrence, the other two without evidence[16]. In the present case, it is a female with a 4 cm tumor, without recurrence.

When SFT develops in oral cavity it appears like a painless swelling, some of them may give rise to compression, has no predilection for gender, it occurs mainly in the sixth decade of life; in an age range of 37 to 83 years, its recurrence and metastasis are rare[17].

SFT are nonencapsulated masses containing a patternless distribution of hypo- and hypercellular areas, intermingled with loose to dense keloid-like collagen. Sheets of uniform, bland, syncytial spindled cells are separated by dilated, angulated vascular spaces. Mitoses, while uncommon, aid in risk stratification. Myxoid change, fibrosis, and interstitial mast cells may be seen[18].

Recently, immunohistochemistry for STAT6 has been introduced as a surrogate diagnostic marker for SFT that is highly sensitive and specific[19]. in the present case it was not carried out because 15 years ago it was not available.

Surgical treatment is of choice as long as there are adequate margins that will be sufficient to avoid recurrence[20].

Because of histopathological similarities with others soft tissue tumors, SFT may present as a diagnostic challenge. On the palate they should be considered together with other differential diagnoses. Because of the rarity and unpredictable biological behavior of these tumours, long-teen follow-up is necessary.

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