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內文：

1. Introduction

- **Solitary fibrous tumor (SFT)** = benign fibrous mesothelioma = submesothelial fibroma → one of the different types of mesothelial tumor and an uncommon neoplasm.
- SFT is a well-recognized entity occurring in the serosal surfaces and most commonly at the level of the pleura. Due to its mesenchymal origin, SFTs have been described in a wide variety of extrapleural locations such as the abdomen, extremities, and vulva.
- Recently, SFTs have been reported in the head and neck area, parapharyngeal space, tongue, larynx, and parotid gland.
- SFTs of the nasal cavity and paranasal sinuses are extremely rare, with only 24 cases reported in the English literature to date.
- SFT occurs more frequently in adults of all ages than in children.
- The main treatment for SFT is complete surgical excision. → endoscopic sinus surgery (ESS) is suggested and endoscopic medial maxillectomy (EMM) was performed in this case

2. Case report

- A 74-year-old man with a left nasal tumor that caused progressive left nasal obstruction. → Seven years before, a left nasal polyp s/p endoscopic sinus surgery (ESS), however, the base of the mass was left in the maxillary sinus
- Postoperative pathological examination revealed SFT. → A Caldwell-Luc procedure was suggested, but the patient refused the surgery at that time.
- Endoscopy revealed a pinkish smooth mass that filled the left middle meatus (Fig. 1a ↓).

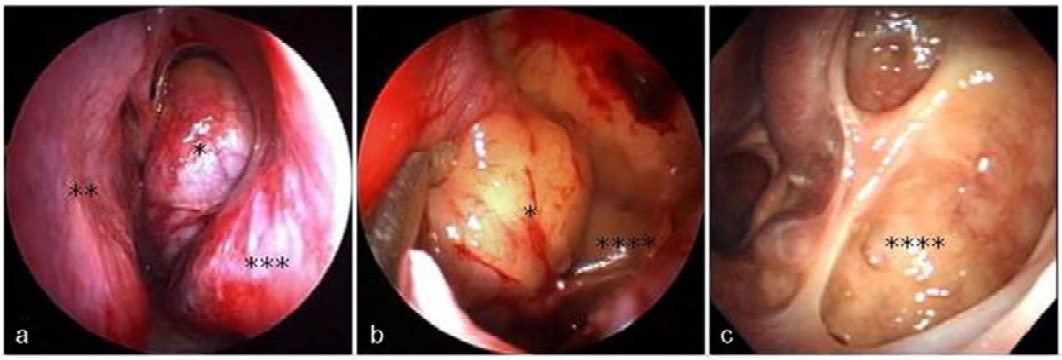


Fig. 1. Endoscopic views of the nose: (a) preoperative view; (b) intraoperative view; (c) postoperative view. (*) The tumor, (**) nasal septum, (***) inferior turbinate, and (****) posterior wall of the maxillary sinus. The base of the tumor is seen in on the medial wall of the left maxillary sinus (b). The maxillary sinus mucosa recovered, and no recurrence was observed (c).

- Enhanced axial **CT** showed a homogeneously enhancing mass that filled the posterior part of the left nasal cavity and the maxillary sinus. No bone damage was observed (Fig. 2a ↓).
- The mass showed prominent and inhomogeneous enhancement after Gadolinium (Gd) injection. MRI revealed that the tumor originated in the medial wall of the left maxillary sinus (Fig. 2b and c ↓).
- EMM, which was selected on the basis of the preoperative radiologic findings, was performed under general anesthesia + a sphenopalatine block, 1% lidocaine with 1:200,000 epinephrine).
- The base of the tumor was clearly identified on the medial maxillary wall (Fig. 1b ↑). The postoperative course was uneventful, and no recurrence was observed at the 1-year follow-up examination (Fig. 1c ↑).

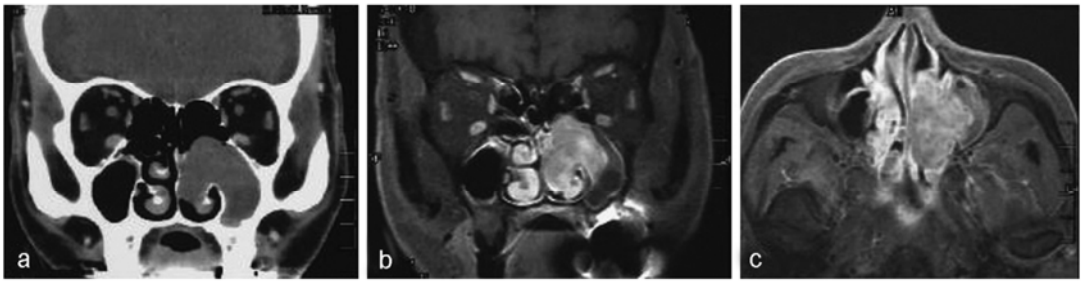


Fig. 2. Diagnostic images of the tumor. (a) Enhanced axial CT shows a homogeneously enhancing mass that fills the posterior part of the left nasal cavity and the maxillary sinus. (b and c) Gd-enhanced axial and horizontal MRI show a prominent and inhomogeneously enhancing mass that originates in the medial wall of the left maxillary sinus.

- The tumor size was 40 mm ×32 mm ×18 mm, and the tumor weight was about 22 g (Fig. 3a ↓).

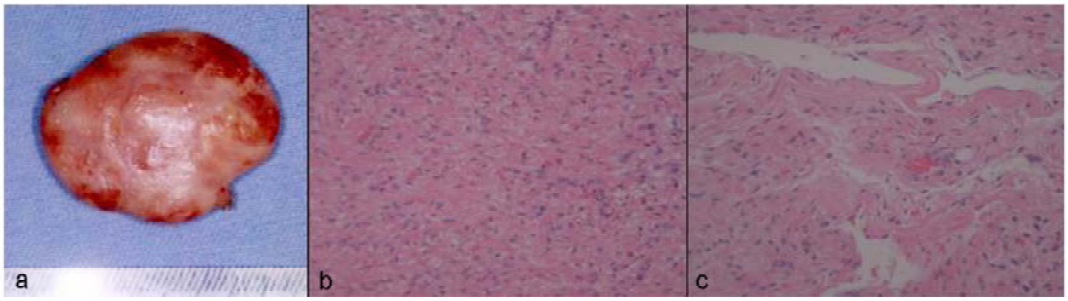


Fig. 3. Macroscopic (a) and microscopic (b and c) features of the excised tumor. (b) The spindle cells are arranged in a patternless fashion in the collagenous matrix (100×). (c) Numerous thick-walled vessels and dilated vascular spaces are present (100×).

- Histopathologically, the lesion consisted of spindle-shaped cells with varying amounts of collagen between there. The spindle cells showed a patternless arrangement within the collagenous matrix. Numerous thick-walled vessels and dilated vascular spaces were present (Fig. 3b and c ↑) → "staghorn" or "antlerlike" (branched horns of deer) appearance
- Immunohistochemically, the tumor cells stained positively for CD34, with no staining for S-100 protein, Bcl-2, or c-kit, thus helping us establish a diagnosis of SFT.

3. Discussion

A. Differential diagnosis:

- Immunohistochemical assessment permits differentiation of SFT from other fibrous or spindle-cell neoplasms of the upper respiratory tract such as hemangiopericytoma, angiofibroma, fibrous histiocytoma, schwannoma, leiomyoma, fibromatosis, and fibrosarcoma
- Recently, **CD34**, a transmembrane glycoprotein found on the surface of hematopoietic progenitor cells, has been considered a positive marker for SFT. (however, not a specific marker)

B. Surgical treatment:

- SFTs of the head and neck are mostly benign and can be successfully treated with surgical excision.
- Various surgical procedures, such as lateral rhinotomy, medial maxillectomy, ethmoidectomy, and surgery with a transfacial approach, have been performed

B-1. Endoscopic sinus surgery (ESS):

- ESS for SFT was first described in 2003, and five cases of SFT of the nasal cavity and paranasal sinuses treated successfully by ESS have been reported in the literature (Table 1 ↓).

- ESS provides superior magnification, illumination, and angled visualization, thereby allowing the surgeon to isolate the base of the tumor and accurately define the extent of disease.

Table 1
Reported solitary fibrous tumor cases treated by ESS

Author (year)	Age and sex	Site[a]	Size (mm)	ESS[b]	Follow-up (months)
Alobid I (2003) [6]	43 M	Rt, E, NC	65 × 38 × 30	Ethmoidectomy, sphenoidectomy	12
Pasquini E (2003) [9]	54 F	Rt, E, NC	?	Ethmoidectomy, sphenoidectomy	18
Eloy PH (2006) [10]	26 F	Rt, E, NC	50 × 35 × 28	Ethmoidectomy, middle turbinectomy	6
Corina (2006) [11]	63 F	Rt, E	?	Ethmoidectomy, sphenoidectomy	6
Sciarretta V (2006) [12]	73 F	?, E, NC	?	Ethmoidectomy	12
Kodama S (2008)[c]	74 M	Lt, M, NC	40 × 32 × 18	Medial maxillectomy, ethmoidectomy	12

[a] Rt, right side; Lt, left side; E, ethmoid; M, maxillary; NC, nasal cavity.
[b] Endoscopic sinus surgery.
[c] The present case.

B-2. Advantage of Endoscopic medial maxillectomy (EMM):

- EMM was recently validated as an effective treatment for benign sinonasal neoplasm such as inverted papilloma
- In comparison to traditional approaches, EMM has several advantages, including no need for external incision, decreased blood loss, low morbidity, decreased hospital stay, and possibility of repetition in cases of recurrence.

B-3. Limitation of EMM:

- Limitation: the posterior wall of maxillary sinus posteriorly, the orbital floor superiorly, the floor of the nose inferiorly, and the anterior wall of the maxillary sinus anteriorly.
- The procedure can be converted into an open, extranasal procedure with a medial maxillectomy or Caldwell-Luc approach.

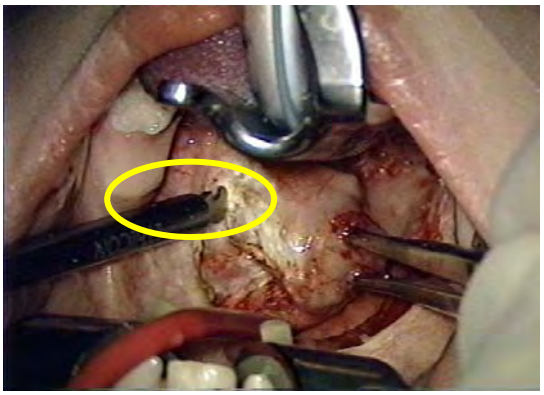
B-4. Bleeding control in ESS:

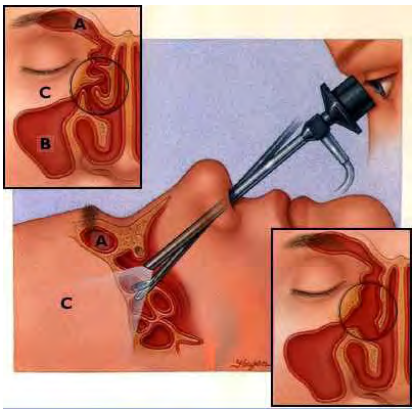
- SFTs are often hypervascular and can bleed easily. In fact, failure of ESS to successfully remove SFT due to massive intraoperative bleeding has been reported.
- In the case described herein, the harmonic scalpel (HS 超音波諧波刀, Fig. 4 ↓) was useful for the excision of the SFT; it eliminated bleeding and did not delay wound healing.

Conclusion

- ESS can be successfully used to achieve the complete removal of benign tumors such as SFTs that arise at the level of the nasal cavity and paranasal sinus.
- EMM may become the treatment of choice for maxillary SFT.

Fig 4.





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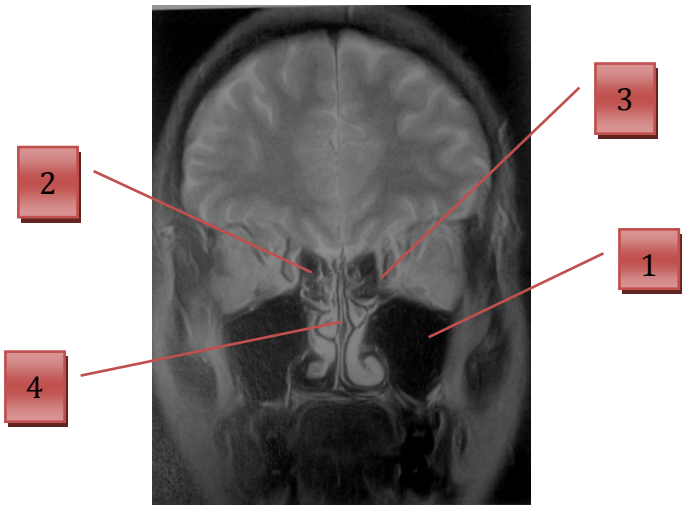
1.	 以下所述何者正確？ (A) 1 是 nasal cavity (B) 2 是 orbital plate，屬於 lacrimal bone (C) 3 是 ethmoidal cells (D) 4 是 inferior nasal concha
答案(C)	出處：T. B. Moeller et al, Pocket Atlas of Sectional Anatomy. Vol. 1 Head & Neck. 3rd edition. Thieme. P.114-115
題號	題目
2.	下列有關 Solitary fibrous tumor 之敘述何者錯誤？ (A) 常好發於頭頸部的良性腫瘤 (B) 成年人比兒童的發生率為高 (C) 為 mesenchymal origin，組織學上的特徵是 hemangiopericytoma-like pattern (staghorn appearance) (D) 治療方法以外科手術摘除為主
答案(A)	出處：本篇 journal 及 Neville's Oral & Maxillofacial Pathology. 2nd edition. P. 474