**CASE REPORT**

**Leiomyoma of the nasal cavity. A case report**

Leiomioma della cavità nasale. Descrizione di un caso

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**Key words**

Leiomyoma • Nose • Sinonasal cavity

**Parole chiave**

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**Summary**

Most of the sinonasal tumours are of epithelial origin. Smooth muscle tumours are extremely rare, they account for less than 2.5% of the mesenchymal neoplasms of the sinonasal tract and the nasopharynx. Fewer than 30 cases of primary leiomyogenic tumours have been reported in the sinonasal tract with almost an equal frequency of benign and malignant types. We report a case of a rare leiomyoma of the nasal cavity. The pathological and the clinical characteristics of this tumour are discussed.

**Riassunto**

La maggior parte delle neoplasie dei seni nasali sono di natura epiteliale. I tumori muscolari lisci sono estremamente rari, con una prevalenza inferiore al 2,5% delle neoplasie mesenchimali dei seni nasali e del rinofaringe. In letteratura sono descritti meno di 30 casi di neoplasie primitive leiomuscolari originate in tale sede, con una distribuzione pressoché omogenea tra forme benigne e maligne. Viene descritto un raro caso di leiomioma della cavità nasale e ne vengono discusse le caratteristiche cliniche e patologiche.

**Introduction**

Leiomyoma are benign mesenchymal tumours of smooth muscle origin. They are usually uterine, gastrointestinal or subcutaneous but can also occur in exceptional sites where smooth muscle is absent. The sinonasal tract is a rare site for leiomyomas and until the present time fewer than thirty cases have been reported in the English literature. We report a case of a nasal leiomyoma arising from the inferior turbinate.

**Case report**

A 50 year old woman presented with a 5 month history of right nasal obstruction accompanied with homolateral rhinorrhea. Rhinofibroscopic examination displayed a well circumscribed polypoid mass coming from the head of the middle turbinate, partially obliterating the right recess and displacing the septum to the left. Computerized tomography (CT) of the nasal cavity was performed. It showed a lobulated soft tissue mass in the right middle turbinate with neither bone destruction nor local invasion. The lesion was completely excised.

**Fig. 1.** Low power photomicrograph showing the leiomyoma beneath the respiratory mucosa (HE x 10).

**Corrispondenza**

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cytoplasm and cigar-shaped monomorphic nuclei. At careful examination no mitoses were found. The stroma was partially hyalinized. The tumoral cells showed diffuse, strong immunoreactivity for smooth muscle actine and caldesmon (Fig. 2).

Discussion

Leiomyomas of the sinonasal tract are extremely rare due to the paucity of smooth muscle cells at this site. The first case was described by Naesaka et al. in 1966. To date, fewer than 30 benign leiomyogenic tumours have been described in the English literature. The origin of nasal leiomyomas is still controversial. They may arise from the smooth wall of blood vessels or from multipotent mesenchymal cells.

They usually occur in adults with a peak incidence between the fourth and the sixth decade. Only one case of an atypical nasal leiomyoma (leiomyoblastoma) was described in a 5-year-old girl. Occurrence is predominantly in females with a male-to-female ratio of 1:3. Frequently, sinonasal leiomyoma presents as a painless polyoid or nodular mass with nasal obstruction and recurrent epistaxis.

Gross examination usually shows a firm, greyish to white, ovoid mass with size ranging from 0.3 to 2.2 cm. Hyalinized or gelatinous areas may be seen. Microscopically, leiomyomas have been divided in vascular and non-vascular; the first type being the most frequent. Myxoid, hyalinized and adipocytic changes or epitheloid appearance are possible though less frequent than uterine tumours. Immunohistochemistry studies show strong positivity of tumour cells for smooth muscle actin and desmin.

The diagnosis of benignity is the same as for uterine leiomyoma. The pathologic differential diagnosis may be encountered with juvenile angiofibroma that can simulate a vascular leiomyoma. When myxoid changes are present, the main differential diagnosis includes sarcomatoid carcinoma and myxoid leiomyosarcoma. The use of immunohistochemistry and the absence of high mitotic activity and/or cytonuclear pleomorphism are often helpful.

With regards to treatment, complete surgical excision is the preferred method. No recurrence of the tumour had been noted after adequate surgery.

References