Nasal Septum Chondroma: A Case Report

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Chondromas of the nasal septum are rare. Since its first literary description in 1842, only about 140 cases have been reported. We present the case of a 38-year-old female who reported intermittent nasal bleeding and nasal obstruction for 3 months. A reddish mass arising from the nasal septum was found by endoscope. The tumor was removed under endoscopic guidance and histopathologic examination revealed chondroma composed of well-differentiated chondrocytes. No recurrence was noticed after 6 months of follow-up. Despite their rarity, chondromas should be taken into consideration in the differential diagnosis of nasal tumors, especially those arising from the nasal septum.


Cartilaginous tumors commonly occur in the long bones, pelvis, sternum, ribs and scapula. Only 10% of cases occur in the head and neck region and those are most commonly observed in the larynx and in the ethmoidosphenoidal region [1,2]. A nasal chondroma is a benign tumor and exceptionally rare in the nasal septum. Since its first description by Morgan in 1842, only about 140 cases have been recorded [2,3].

Case Presentation

A 38-year-old pregnant female who had suffered from intermittent left nasal bleeding for 3 months visited our clinic. She also complained of headaches, progressive left nasal obstruction, postnasal drip, and sneezing. She had no rhinorrhea, nasal pain, history of trauma, ophthalmic symptoms, or facial deformity. Local findings and nasal endoscope examination revealed a well-defined, smooth, firm reddish mass arising from the left side of the nasal septum (Figure 1). It had no contact with the sinus or turbinates. No cervical lymphadenopathy was present. Wide excision of the mass with a Diomed laser (Diomed Inc, Andover, MA, USA) was performed under local anesthesia with the guidance of an endoscope on October 3, 2003. We left a safe margin of 10 mm around the attached base. The perichondrium was also removed, but the cartilage was preserved since no bone or cartilage destruction was noted. The tumor measured 1.0 × 0.8 × 0.5 cm. Nasal obstruction and bleeding improved after surgery and the patient fully recovered.

Figure 1. A well-defined, reddish mass with congested vessels on the overlying mucosa on the left side of the nasal septum (arrow). S = nasal septum.
recovered. No sign of recurrence was noted after 6 months of follow-up.

The result of the histologic study was compatible with chondroma composed of well-differentiated chondrocytes, without increased cellularity or nuclear atypia (Figure 2).

**Discussion**

Although cartilaginous tumors of the head and neck are rare, when they do occur, they are malignant twice as frequently as they are benign [4,5]. Nasal chondromas are more common among younger patients [3,6]. The peak age of patients with cartilaginous tumors of the head and neck is between 20 and 30 years, although cases have been observed in patients up to and over the age of 60 [1,3]. There is no connection to gender [3,4].

The symptoms of cartilage tumors of the nasal cavity and its surroundings depend on the site, size, and rate of growth of the tumor. Nasal chondromas are characterized by slow growth, with the symptoms of nasal obstruction and epistaxis [1,3]. Pain does not appear to be a prominent symptom. Pressure effects and deformities may occur. Interference with the orbital contents may cause proptosis, epiphora, diplopia, and even blindness. Patients in whom the maxilla is involved may complain of toothaches and ill-fitting dentures.

As cartilaginous tumors of the head and neck region are very large at the time of presentation, certainty as to their exact site of origin and extent is difficult [1,6]. The sites of predilection include the ethmoid sinus (50%), maxilla (18%), nasal septum (17%), hard palate, and nasopharynx (including the sphenoid and eustachian tube) (6% each), and alar cartilage (3%) [3].

The most convincing theory of origin is that of cartilaginous cell rests. Chondromas may arise from the embryonal cartilage cell rests which may escape resorption during enchondro-ossification [1,3,7].

The impact of pregnancy on the enlargement of chondroma has been reported with regard to intracranial tumors, including the skull base chondroma [8]. Nasal septum chondroma presenting in pregnancy has not been previously reported. The mechanism may be due to the physiologic changes during pregnancy. The engorgement of blood vessels may cause tumor expansion. Alternatively, changes in hormonal levels, including those of estrogen and progesterone, may influence tumor development.

Plain X-ray slides and computer tomographs help in assessing the extent of the tumor. In general, nasal chondromas are not radio-opaque [3]. Chondromas are usually well circumscribed and appear fairly homogeneous on a computed tomography scan [4].

Biopsy is the only certain means of diagnosis [3]. Some chondrosarcomas are extremely well-differentiated and the pathologist might have difficulty in separating these malignant lesions from benign ones, especially in the biopsy material [1,5,7,9]. Twenty percent of head and neck chondrosarcomas may initially be misdiagnosed as benign [4]. Multiple site biopsies are important in the assessment of cartilaginous tumors, since areas diagnostic of chondrosarcoma may only be noted focally [5,7,9].

Although chondromas are regarded as benign, they differ from other benign tumors in that they are locally invasive and tend to recur after removal. They also have a tendency toward sarcomatous change [1,3,6]. Nevertheless, in cartilaginous tumors of the nasal passages, as elsewhere in the skeleton, less than 5% of tumors presenting as clinically and histologically benign eventually become malignant [10].

Wide surgical excision is the accepted treatment for cartilaginous tumors in this region [3,7]. In general, cartilaginous tumors are radioresistant. Radiotherapy is of little value and chemotherapy is generally ineffective [3,5]. Radiotherapy will be used usually when the patient’s disease is beyond surgical cure [3]. As chondromas have a tendency toward sarcomatous change, long-term follow-up is strongly advised [2,3,9,10]. Although both benign and malignant forms spread locally, metastasis is rare and occurs late with

Figure 2. Pathology reveals chondrocyte with normal cellularity. The tumor is composed of vacuolated cytoplasm and prominent vesicular nuclei. Mitotic figures are scarce. Mature chondrocytes have small, single nuclei within lacunae without atypia. (Hematoxylin & eosin; original magnification ×100.)
chondrosarcoma, most commonly affecting the lungs [1]. Death from the tumor results from intracranial spread or pulmonary complications [3]. The prognosis is good and recurrence is uncommon with appropriate treatment.

References

鼻中隔軟骨瘤 — 病例報告

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鼻中隔軟骨瘤為一罕見的疾病，自從 1842 年被初次提出後，大約只有 140 個病例被報告。本文報告一 38 歲女性病患，懷孕六個多月時於左側鼻中隔發現一腫瘤，其造成流鼻血及鼻塞三個月，經手術切除後，組織病理顯示為一由分化良好的軟骨細胞所構成的軟骨瘤。追蹤六個月後情況良好，無復發現象。雖然罕見，鼻腔腫瘤應將軟骨瘤列入鑑別診斷。

關鍵詞：軟骨瘤，鼻中隔
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