Sinonasal cancers comprise approximately 3% of all the upper aerodigestive tract malignancies and less than 1% of all cancers. The incidence of malignant tumors of the nasal septum is very low, comprising 2.7–8.4% of nasal and paranasal malignant tumors [1]. Of all malignant paranasal sinus tumors, 5–15% are adenoid cystic carcinomas [2]. In the literature to date only six cases of adenoid cystic carcinoma arising from the nasal septum have been reported [1,3–5]. In this paper, we present our experience of a case of nasal septal adenoid cystic carcinoma.

CASE PRESENTATION

A 56-year-old male who had suffered from epistaxis for 1 month visited our clinic. He also complained of nasal obstruction, but negative nasal discharge, nasal pain, or facial numbness. Nasal endoscopy revealed a well-defined, smooth, non-ulcerative mass arising from the nasal septum (Figure 1A and B). It had elastic consistency on palpation. It had no contact with sinus or turbinate. Computed tomography scan revealed a nasal septum tumor with septum destruction (Figure 1C and D). No cervical lymphadenopathy was present. Punch biopsy was done and the pathology report revealed adenoid cystic carcinoma with cribriform pattern. He then had postoperative radiotherapy. No recurrence was noticed after 1 year of follow-up. Despite its rarity, adenoid cystic carcinoma should be taken into consideration in the differential diagnosis of nasal tumor.
anterior margins. Neither perivascular nor perineural permeation was noted. Postoperative radiotherapy with a dose of 7,400 cGy was administered to enforce locoregional control. The patient recovered uneventfully after operation and radiotherapy. No signs of local recurrence and distal metastasis were noted after 1 year of follow-up.

**DISCUSSION**

Adenoid cystic carcinoma in the nasal cavity and paranasal sinuses origin often has a worse prognosis than in any other area of the head and neck region. It is reported to occur in any age group with a peak incidence in the fourth to sixth decades. Its presenting symptoms are usually nonspecific, such as nasal obstruction, epistaxis and symptoms depending on which structure has been invaded. Nasal bleeding and obstruction were the only presenting symptoms in our patient. The smooth bulging appearance of this septal tumor could be mistaken for a high septal deviation (Figure 1A and B). Palpation of its consistency might be helpful in differential diagnosis.

The differential diagnosis of a nasal septum tumor includes a wide variety of pathology including squamous cell carcinoma, malignant melanoma, adenoid cystic carcinoma, adenocarcinoma, chondroma, chondrosarcoma, osteosarcoma, schwannoma, lymphoma, and mucoepidermoid carcinoma. A biopsy for definite diagnosis is necessary.

The slow-growing adenoid cystic carcinoma can reach large dimensions within the hollow nasal and sinus cavities before becoming symptomatic.

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**Figure 1.** Nasal endoscopy reveals a well-defined, smooth, non-ulcerative mass arising from the (A) right, and (B) left nasal septum. Computed tomography of the nose and paranasal sinuses reveals a nasal septum tumor with septum destruction: (C) axial view; (D) coronal view.
Furthermore, the close relationship of nose and sinus with surrounding vital structures, including the dura, brain, orbit, carotid arteries, and cranial nerves may result in an inadequate or high morbidity surgical resection.

Perineural invasion along cranial nerves is a pathognomonic factor of adenoid cystic carcinoma and is believed to be responsible for the high rate of local recurrence. Neck lymph node metastases are extremely rare with adenoid cystic carcinoma. The lung is the most common site of metastasis and the less common sites include the bone, liver, brain, and kidney. Adenoid cystic carcinoma has the tendency to spread hematogenously and perineurally but not lymphatically.

Three histologic growth patterns have been identified and described: solid, cribriform, and tubular. Cribriform is the most common histologic subtype. Assessment of the histologic grade is of significance in predicting the likelihood of tumor recurrence and survival. In one series of studies, 5-year recurrence rates of 100%, 89%, and 59% were reported for tumors with solid, cribriform, or tubular growth patterns, respectively [6]. Similarly, the presence of greater than 30% solid growth has been reported to have a significantly poorer 5-year survival (5%) when compared to tumors with a predominantly cribriform (26%) or tubular (39%) growth pattern [3].

The surgical approach is modified for the individual tumor according to the tumor size and location.

**Figure 2.** The nasal septum tumor is covered by intact nasal mucosa bilaterally. The tumor size is $4.0 \times 3.0 \times 0.5 \text{cm}$ in the (A) right and (B) left sides of the nasal septum. (C) Pathology reveals cribriform variant of adenoid cystic carcinoma (hematoxylin and eosin; original magnification, $40\times$). (D) Adenoid cystic carcinoma with cribriform subtype (hematoxylin and eosin; original magnification, $400\times$).
Endoscopic approach can remove the small and localized nasal septum tumor. Lateral rhinotomy incision alone can excise anterior septal tumors. Midfacial degloving can approach the lower nasal septum tumor without cosmetic deformity. Additional exposure like lateral rhinotomy with sublabial incision may be required to resect posterior nasal septal lesions. Lateral rhinotomy with lip-splitting incision can resect lesions of the nasal septum and floor.

A combination of radical surgery and postoperative radiotherapy was the main therapy for sinonasal adenoid cystic carcinoma compared to either surgery or radiotherapy alone. But despite aggressive surgery, high incidence of positive margins was noted due to the anatomical complexity of the nose and paranasal sinuses. So adjuvant radiotherapy is necessary in such cases [2]. Chemotherapy appears to be ineffective in the treatment of adenoid cystic carcinoma. Long-term follow-up is necessary because of the high incidence of local recurrence and distal metastasis.

REFERENCES

鼻中隔腺樣囊狀癌 — 病例報告

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鼻中隔腺樣囊狀癌為一相當罕見的疾病。本文報告一 56 歲男性病患，症狀為流鼻血及鼻塞約一個多月，經鼻內視鏡檢查發現在鼻中隔有一腫瘤，經側鼻切開手術切除後，組織病理顯示為一腺樣囊狀癌，術後接受放射線治療。追蹤一年後情況良好，無復發現象。雖然罕見，鼻腔腫瘤應將腺樣囊狀癌列入鑑別診斷。

關鍵詞：腺樣囊狀癌，鼻中隔

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