Salivary gland tumors account for 3% of all head and neck tumors and most commonly affect the parotid gland.1 Mucoepidermoid carcinoma is the most common malignant salivary gland tumor, and can affect both minor and major salivary glands.2 Sinonasal mucoepidermoid carcinoma is very rare. According to combined reports of four large series of major and minor salivary gland tumors, it accounts for only 0.6% of all salivary tumors and 4.8% of all mucoepidermoid carcinomas.3 Mucoepidermoid carcinoma of the nasal septum is even more rare. According to our review of the literature; only one case has been reported.2 When mucoepidermoid carcinoma affects the sinonasal tract, the most common site is the maxillary sinus; other sites, in order of decreasing incidence, include the nasal cavity, nasopharynx, and ethmoid sinuses.4 This pattern may reflect the relative distribution of minor salivary glands in this area of the upper aerodigestive tract.

**CASE**
A 17-year-old, male presented with a history of right-sided nasal obstruction, occasional nasal discharge and bleeding of 1-year duration. He noted painless right-sided nasal swelling about 3 months previously. There was no history of fever, weight loss or any previous nasal surgery. Facial examination revealed swelling over the right side of the nose with normal overlying skin. Intranasal examination detected that the right nasal cavity had a soft, red-colored mass, which bled on manipulation, originating from the nasal septum and obstructing the nasal cavity. The left nasal cavity and the nasopharynx were clear. Neck examination did not reveal any palpable lymph node.

A biopsy specimen of the mass was consistent with mucoepidermoid carcinoma. CT scan showed a mass in the right nasal cavity that originated from the right nasal septum (Figure 1).

The patient underwent endoscopic excision and the tumor was removed in a single and wide block, including the underlying septum cartilage. The counter-lateral mucosa of the nasal septum was left intact. Histopathological examination revealed high-grade mucoepidermoid carcinoma (Figure 2). Septal cartilage was without tumor infiltration.

The patient’s recovery was uneventful. The nasal septum healed without perforation. Post-operative radiotherapy was planned, but after thorough discussions with the patient, his family, and the multidisciplinary team, the family refused further therapeutic intervention. The patient was undergone regular follow up, with no sign of recurrence 2 years after the operation.

**DISCUSSION**
A wide range of diagnoses enter into the differentials of a nasal mass, varying from infective lesions and inflammatory proliferations to benign and malignant neoplastic conditions. Squamous cell carcinoma is the commonest malignant tumor of the nose and nasal cavity.5

Mucoepidermoid carcinoma of the nose is very

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**Mucoepidermoid carcinoma of the nasal septum (case report)**

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MUCOEPIDERMOID CARCINOMA

Figure 1. CT scan image (coronal view) show mass in right nasal cavity, originating from the nasal septum.

Figure 2. Mucoepidermoid carcinoma of the nasal septum comprising islands of squamous cells (Æ) and glandular structures (p) amidst background of intermediate cells. Isolated scattered foamy mucin-producing cells are also present.3 (hematoxylin & eosin stain, ×100 magnification).

tal patients may present with non-specific signs and symptoms. Careful evaluation including a CT scan should be part of the early evaluation when a mass in the nasal cavity and neoplasm is suspected. MRI is indicated for assessing possible intracranial extension. Biopsy is essential to determine the type of the tumor.

Histologically, mucoepidermoid carcinoma can be classified into a low, intermediate or high malignancy grade based on five parameters: the proportions of cystic and solid elements, the presence or absence of necrosis, the presence or absence of neural invasion, the mitotic rate, and the presence or absence of cellular anaplasia.4

In general, minor trauma and chronic irritation have been implicated in the etiology of sinonasal tract cancers. According to previous reports, other causes like vitamin A deficiency, occupational factors (e.g., working with wood dust, industrial toxins, chrome, nickel, leather, textiles, and clothing), and radiation exposure have been associated with mucoepidermoid carcinoma.4

The treatment of mucoepidermoid carcinoma of the nasal cavity is based on the tumor grade, tumor extension, and the medical condition of the patient. Surgical resection alone has been advocated for low-grade mucoepidermoid carcinoma. For intermediate and high-grade tumors, however, complete resection and postoperative radiation are recommended. Clinical nodal disease should be treated with appropriate neck dissection and postoperative radiotherapy if indicated.4 In our case, radiotherapy was not given. However, the direct visualization of the operation site enabled us to monitor for any possible recurrence.

The prognosis is influenced mainly by the tumor grade. Other factors that have been associated with poor survival include bone invasion, pain, age beyond 60 years, positive cervical nodes, and facial palsy.4 In a large series (367 cases), Spiro et al8 reported that the overall 10-year determinate cure rate for mucoepidermoid carcinoma in all head and neck sites was 90% for low-grade tumors and 42% for high-grade tumors. Therefore, early diagnosis and management by multidisciplinary treatment team is mandatory in these patients.

CONCLUSION

Mucoepidermoid carcinoma of the nasal septum is extremely rare. Affected patients may present with non-specific signs and symptoms. Careful evaluation including a CT scan is essential in the management of these patients. Biopsy is important for the diagnosis and the grading of the tumor. Surgery alone might be suitable for cases with a small tumor and when direct inspection of the operation site is feasible to detect early recurrence.
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