CASE REPORT

Swelling of the Nasal Septum: A Case of Nasal Septum Carcinoma

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Abstract

Objectives: To report a case of nasal septum carcinoma. To review the existing literature on the presentation, staging, and management.

Results: A 70-year-old gentleman presented with soft, smooth swelling of the anterior nasal septum for a duration of 1 month. CT contrast showed a hypodense soft tissue arising from the left nasal septum without bony erosion, with the mass measuring 1.8 × 2.6 cm, displacing the nasal septum to the right. Post-excision histopathological examination reported a keratinizing squamous cell carcinoma of poorly differentiated type with margin involvement. He was started on radiotherapy and successfully completed it.

Conclusions: Mass in the nasal cavity is the second most common presentation of nasal septum carcinoma. Treatment of nasal septum carcinoma depends on the site and extension of the lesion. Postoperative irradiation is important depending on the clearance and cartilage involvement. The above tumor is T1 according to staging but is of relatively large size. According to the previous meta-analysis, a T1 tumor can be treated with radiotherapy alone. Another study showed that tumor that is more than 2 cm in size is better treated with combined therapy, without mentioning about the stage of the tumor. To reach better treatment, both criteria must be taken into consideration. A better staging system that involves location and size of the tumor will help in better treatment and prognosis.

Keywords: Nasal septum carcinoma, Nasal septum swelling, Squamous cell neoplasm.

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Introduction

Nasal septum carcinoma is a rare disease. Of all reported cases of nasal septum carcinoma, squamous cell carcinoma is the most common type. The management of nasal septum carcinoma depends on the staging of diagnosis, which will also affect the prognosis.

Case Report

A 70-year-old gentleman presented with swelling of the anterior nasal septum for a duration of 1 month. He has underlying hypertension diagnosed 4 years ago and is on regular medications.

He also complains of hyposmia, blocked nose, and recurrent epistaxis from the left nostril for the past 1 month. There are no other complaints.

On examination, there was a soft, smooth swelling of the anterior nasal septum (Fig. 1). CT contrast showed a hypodense soft tissue arising from the left nasal septum, measuring 1.8 × 2.6 cm, displacing the nasal septum to the right. No bony erosion was seen.

Biopsy of the left nasal cavity mass came back as undifferentiated carcinoma.

He was posted for excision of the septal mass which was successfully done (Fig. 2).

Post-excision of the tumor (Fig. 3), the biopsy report came back as keratinizing squamous cell carcinoma, poorly differentiated with margin involvement.

He was referred to the oncology department for a further opinion and started on 33 fractions of radiotherapy which were completed without complications.

Postoperative follow-up at 6 months showed that he was doing well with no recurrence noted.

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Fig. 1: Nasal swelling with tumor

Fig. 2: Post-excision tumor removal

Fig. 3: Sample

Discussion

The presentation of squamous cell carcinoma in the nasal septum varies, with the most common primary presentation being the complaint of a mass in the nasal cavity.[1] A finding of ulcer in the nasal cavity is the most common; this is followed by a mass in the nasal cavity.[1] Nasal septum perforation is the third most common primary presentation with cases reported as well by reviewing the literature.[2] Some patients may present with the growth in the nostril up to 2.5 years before being diagnosed correctly.[3]

It was suggested that patients with septal carcinoma be treated by wide surgical excision and irradiation to the primary site.[4] This is in contrast with the earlier-reported treatment that both surgical and radiation therapy are equally effective.[5] As time progresses and the understanding of nasal septum carcinoma improves, the literature series have reported that either radiation therapy or surgery is effective for early-stage lesions, while more advanced lesions require combined radiation therapy and surgery.[1] If the lesion is small and located such that adequate margin can be obtained from surgical removal, it is possible for surgical removal with little or no cosmetic deficit.[6]

Depending on the location of the tumor, theoretically, the cartilage that has been compromised by tumor invasion, infection, and prior surgery is more vulnerable to radiation surgery. However, with properly fractionated external beam therapy, cartilage necrosis is rarely observed.[6] Tumors arising in close proximity to cartilage may invade it but have a high control rate with irradiation therapy.[6]

For cases that require surgical excision, the location of tumors matters. A lateral rhinotomy incision is used to localize anterior septal lesions. For lesions that advance into the posterior septum or nasal floor, Weber–Ferguson incisions are used, with the removal of the involved palate, columella, and medial maxillary wall.[1]

There are two staging systems for tumors of the nasal cavity. The first is TNM staging developed by The American Joint Committee on Cancer for cancers of the nasal vestibule with those arising in the nasal cavity and ethmoid sinus, and the second is the Wang staging system for cancers of the nasal vestibule. Some studies showed that the Wang staging system correlates better with the prognosis than the TNM staging system.[7]

In the above case, the patient presented with swelling in the nasal cavity, which is the most common presentation. A biopsy was taken for the confirmation of diagnosis. He was noted to have a T1 tumor by Wang classification. From a study by Leliever in 1984, these tumors are classified into small (<0.9 cm), mid-sized (1–1.9 cm), and large (>2 cm). From the report of the CT scan, the patient is having a large tumor, but it is of T1 in classification. Treatment difficulty occurs as T1 lesions can be treated by radiotherapy alone as per the meta-analysis done by Dileo in 1996. Radiation therapy alone may be chosen as a mode of treatment if the tumor size is small.[8] Taking into consideration that it is a large tumor, combined surgical and radiotherapy was chosen as the primary mode of treatment instead of radiotherapy alone.[9] This is from the understanding as discussed above that if the cartilage is involved, the risk of necrosis is low depending on the type of radiation, and at the same time, excision has a chance of removing the tumor in total. Post excision of the tumor, the histopathology results showed that there was margin involvement. This further enhanced the need for radiotherapy that was already decided before the operation.[10] This was due to the fact that the tumor was big in size and a total excision was hard to judge during excision. A follow-up at 6 months post combined treatment showed no recurrence of tumor.

Conclusion

Staging of the nasal cavity tumors can be further improved by taking into consideration the size of the tumor, together with the underlying structures involved. Before a new and better staging system appears, it is better to treat the tumors according to the currently available staging and at the same time take into consideration the size of the tumors.

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