Case Report

Nasal sebaceous carcinoma: A rare case

ABSTRACT

Nasal sebaceous carcinoma is an extremely rare cutaneous malignancy. We present the case of an 86-year-old female who had a skin nodule with surface telangiectasia on the right ala of the nose. The lesion had been removed and has been reconstructed with an advancement rotational flap with a minimal residual defect. Upon histopathological examination, the lesion was diagnosed with sebaceous carcinoma. The patient was followed up because of the high rate of recurrence as well as metastatic potential. No recurrence occurred during 4 years of follow-up, and the patient was unwilling to reconstruct the remaining alar defect. We present a rare skin cancer case that could be encountered during the head and neck examination by oral and maxillofacial surgeons. By reporting this case, we aimed to raise the awareness and familiarize clinicians with these less common lesions.

Keywords: Adnexal skin tumor, nose neoplasms, sebaceous adenocarcinoma

INTRODUCTION

A variety of medical disciplines are regularly consulted on the skin lesions of the head and face. Oral and maxillofacial surgeons are involved with everyday examinations of the face and could encounter the cutaneous lesions on the nose. Sebaceous gland malignancies represent one of the rare and potentially aggressive types of skin neoplasms. Sebaceous carcinoma arises from the sebaceous glands' epithelium, and any anatomic site containing sebaceous glands may exhibit neoplastic sebaceous differentiation. The most common site of these neoplasms is the ocular adnexa (glands of Zeis) and skin of the face, and it is believed to arise from the sebaceous glands of the skin.[1] One of the most extensive reviews of 1349 cases of sebaceous carcinoma showed that orbital or periorbital involvement has comparable frequency and aggressiveness. The present study also showed a higher incidence of lesions among advanced age patients and a slight male predominance.[2]

CASE REPORT

We present an 86-year-old female with a history of the growing nodule on the right side of nasal alar skin. The patient and her guardians signed written informed consent for the scientific use of the patient's information and photographs.

The medical history of the patient was unremarkable. Physical examination showed a firm sessile nodule with thin surface telangiectasia and abrasion of the lesion [Figure 1]. The primary diagnosis was basal cell carcinoma. No radiographic examination was requested. During surgery, the right alar lesion was excised with a 5-mm free margin, and the nodule was removed with a portion of lower lateral cartilage extending to the vestibular portion of the right nostril. Due to the limited extension of the lesion, no frozen section was requested. An advancement-rotational nasolabial flap was designed, and the defect was partially reconstructed [Figure 2]. Microscopic sections show irregular lobules, and sheets of atypical cells with sebaceous differentiation

Saeid Tavanafar, Hamed Gheibollahi[1], Seyede Sona Mousavi, Amirreza Dehghanian[2]

Departments of Oral and Maxillofacial Surgery and [2]Pathology, Shiraz University of Medical Sciences, Shiraz, [1]Department of Oral and Maxillofacial Surgery, Yazd University of Medical Sciences, Yazd, Iran

Address for correspondence: Dr. Saeid Tavanafar, Department of Oral and Maxillofacial Surgery, Shiraz University of Medical Sciences, Shiraz, Iran.
E-mail: s.tavanafar@gmail.com

Received: 19 November 2020, **Revised:** 24 December 2020, **Accepted:** 19 February 2021, **Published:** 20 August 2022

Access this article online	
Website: www.njms.in	Quick Response Code
DOI: 10.4103/njms.NJMS_245_20	

How to cite this article: Tavanafar S, Gheibollahi H, Mousavi SS, Dehghanian A. Nasal sebaceous carcinoma: A rare case. Natl J Maxillofac Surg 2022;13:S176-8.

arranged in nests show considerable nuclear and nucleolar pleomorphism with eosinophilic cytoplasm with high mitotic activity. Many atypical mitoses and some areas of necrosis were noted microscopically. The immunohistochemical study shows immunestaining for epithelial membrane antigen (EMA) [Figure 3].

The cellular characteristics were consistent with sebaceous gland carcinoma.[3] The advancement-rotational flap was shrunk with the remaining alar defect. No further reconstructive surgeries were desired by the patient [Figure 2]. The patient is currently 90 years old, which has been disease-free for 4 years.

DISCUSSION

Nasal sebaceous gland carcinoma is an extremely rare skin adnexal tumor, with few nasal sebaceous carcinoma cases reported in the literature. The periocular region is the most common site for sebaceous carcinoma, whereas the nasal area represents only 5% of 400 reviewed cases.[1] Another review shows that the number of these cases is increasing, and only 25% of these cases occur extraocular.[4]

Previous reports showed a tendency toward female and Asian ethnic groups, which has been challenged by a more recent study that showed a male predominance with no risk factor associated with Asian/Pacific Islander ancestry.[2] The specific etiological factor is still unknown, but patients with a history of radiotherapy and human papillomavirus infections were more associated with these lesions.[5] Another factor that might occur in this lesion is the genetic characteristics of Muir-Torre syndrome. It shows an autosomal dominant with variable skin manifestation and penetrance. These lesions can precede or concur with other visceral malignancies, such as colorectal carcinomas, which are the most common type.[6] Therefore, concise evaluation of Muir-Torre syndrome consisting of colonoscopy and early morning urine sample for genitourinary malignancy. The present case was unlikely to be a Muir-Torre syndrome due to no family history or previous skin carcinoma and no symptoms of neither colorectal nor genitourinary tract malignancies.

Although multiple etiological features have been shown in the literature, our patient had no recurrence.[7] Possible local spread of lesions during surgery is very unlikely and did not occur in our case. These lesions have high metastatic potential among carcinomas, which can occur by the lymphatic drainage of the primary site. In our case, no lymphatic enlargement was observed over a relatively long period (4 years), and the patient was disease-free. Histopathological examination showed no vascular, lymphatic, or neural invasions.

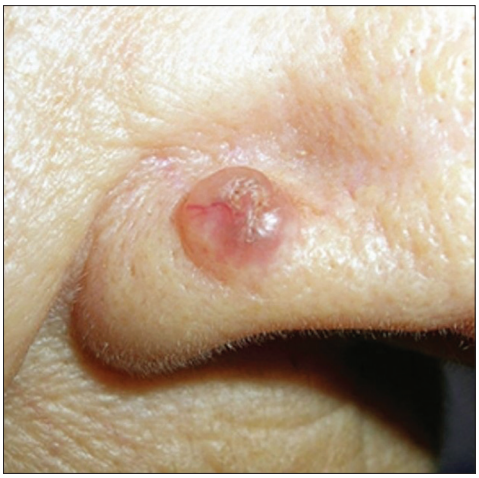

Figure 1: Preoperative clinical view of the lesion

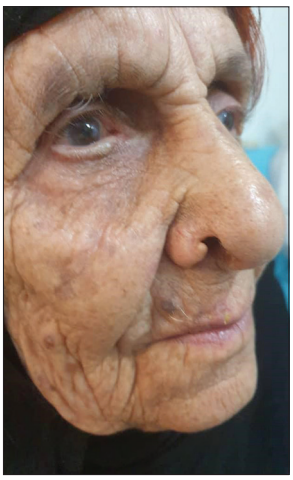

Figure 2: Four years postoperative healed lesion with remaining defect

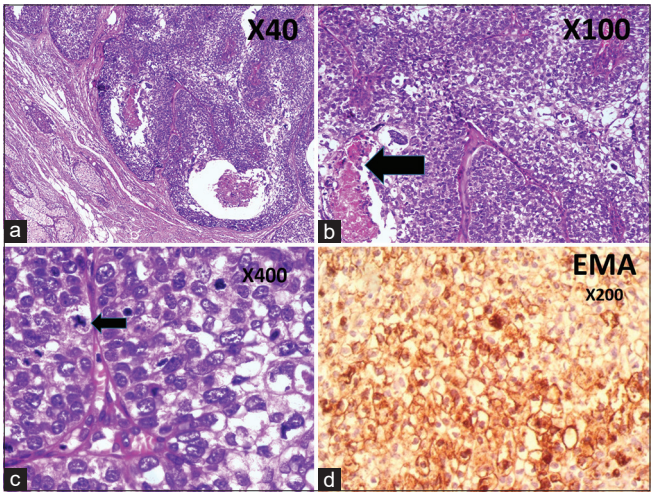

Figure 3: Histopathologic examination of the lesion (a) microscopic view at ×40; (b) Necrotic areas; (c) Atypical mitoses; (d) The immunohistochemical staining for epithelial membrane antigen

Histopathologically, the principal differential diagnosis is basal cell carcinoma with sebaceous differentiation.

In this regard, immunohistochemical study for EMA and Cytokeratin (CAM 5.2) is helpful, which both are positive in sebaceous carcinoma.

The face and the nasal area have vast vascular supplies with various anastomoses such as columellar and nasal vestibular arteries branching from the facial artery.[8] Micrometastatic seeding might occur during surgery. Another possibility might be a direct spread of lesion, which has not occurred in our case,[9] but these speculations are not ruled out. Both types of sebaceous carcinoma are known to metastasize to the regional lymph node. The most common sites of metastasis are the preauricular and parotid lymph nodes.[10,11] Reports show that the extraocular type of sebaceous carcinoma has a metastatic rate of 21%.[2] Due to aggressive behavior of extraocular sebaceous carcinoma, Sawyer *et al*.[12] recommended sentinel lymph node biopsy. Although there is no consensus regarding nodal neck treatments, some of the authors suggested sentinel lymph node dissection, neck dissection, or even close surveillance.[13] Therefore, each case should be decided individually base on prompt preoperative evaluation to rule out regional or distant metastasis.

Treatment modalities of the sebaceous gland are cryotherapy, radiation, and surgical removal. However, previous reports show that radiation therapies hold high mortality rates than those treated surgically with free wide margins.[14] These lesions' treatment choice is currently surgical excision with a wide free margin proved by the frozen section.[15]

CONCLUSIONS

We present an extremely rare skin cancer case that could be encountered during head and neck examinations by oral and maxillofacial surgeons. By reporting this case, we aimed to raise the awareness and familiarize clinicians with these less common lesions. These lesions should be treated aggressively to obtain free margin, and patients should be closely followed up during at least the first 5 years due to its high recurrence rate and high tendency to metastasize.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understand that name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

Acknowledgments

We like to appreciate Rajaei acute surgical care for their assistance in preparing this manuscript.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Bailet JW, Zimmerman MC, Arnstein DP, Wollman JS, Mickel RA. Sebaceous carcinoma of the head and neck. Case report and literature review. Arch Otolaryngol Head Neck Surg 1992;118:1245-9.
2. Dasgupta T, Wilson LD, Yu JB. A retrospective review of 1349 cases of sebaceous carcinoma. Cancer 2009;115:158-65.
3. Sadeghi S, Pitman MB, Weir MM. Cytologic features of metastatic sebaceous carcinoma: Report of two cases with comparison to three cases of basal cell carcinoma. Diagn Cytopathol 1999;21:340-5.
4. Akhtar S, Oza KK, Roulier RG. Multiple sebaceous adenomas and extraocular sebaceous carcinoma in a patient with multiple sclerosis: Case report and review of literature. J Cutan Med Surg 2001;5:490-5.
5. Hood IC, Qizilbash AH, Salama SS, Young JE, Archibald SD. Sebaceous carcinoma of the face following irradiation. Am J Dermatopathol 1986;8:505-8.
6. Johnson PJ, Heckler F. Muir-Torre syndrome. Ann Plast Surg 1998;40:676-7.
7. Snow SN, Larson PO, Lucarelli MJ, Lemke BN, Madjar DD. Sebaceous carcinoma of the eyelids treated by Mohs micrographic surgery: Report of nine cases with review of the literature. Dermatol Surg 2002;28:623-31.
8. Nakajima H, Imanishi N, Aiso S. Facial artery in the upper lip and nose: Anatomy and a clinical application. Plast Reconstr Surg 2002;109:855-61.
9. Murphy J, Bleach NR, Thyveetil M. Sebaceous carcinoma of the nose: Multi-focal presentation? J Laryngol Otol 2004;118:374-6.
10. Shields JA, Demirci H, Marr BP, Eagle RC Jr., Shields CL. Sebaceous carcinoma of the ocular region: A review. Surv Ophthalmol 2005;50:103-22.
11. Buitrago W, Joseph AK. Sebaceous carcinoma: The great masquerader: Emgerging concepts in diagnosis and treatment. Dermatol Ther 2008;21:459-66.
12. Sawyer AR, Mcgoldrick RB, Mackey S, Powell B, Pohl M. Should extraocular sebaceous carcinoma be investigated using sentinel node biospy? Dermatol Surg 2009;35:704-8.
13. Owen JL, Kibbi N, Worley B, Kelm RC, Wang JV, Barker CA, *et al*. Sebaceous carcinoma: Evidence-based clinical practice guidelines. Lancet Oncol 2019;20:e699-714.
14. Rao NA, Hidayat AA, McLean IW, Zimmerman LE. Sebaceous carcinomas of the ocular adnexa: A clinicopathologic study of 104 cases, with five-year follow-up data. Hum Pathol 1982;13:113-22.
15. Cook BE Jr., Bartley GB. Treatment options and future prospects for the management of eyelid malignancies: An evidence-based update. Ophthalmology 2001;108:2088-98.