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Single Case

Eccrine Porocarcinoma on the Lateral Nose Wall: A Rare Case Report

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Keywords
Porocarcinoma · Nose · Treatment

Abstract
Eccrine porocarcinoma (EPC) is an uncommon malignant tumor derived from the eccrine sweat glands. We present a case of EPC on the lateral nose wall, in which the tumor was excised, and the resultant defect was reconstructed using a nasolabial flap. A 66-year-old female was referred to the Department of Plastic and Reconstructive Surgery to receive treatment for a cutaneous tumor on her right lateral nose wall, which had been growing rapidly for 3 months. Histological analysis of a biopsy specimen of the tumor suggested that it was a squamous cell carcinoma. Surgical excision was performed with a 3-mm margin. The tumor was histologically diagnosed as an EPC. EPC exhibits various pathological features; therefore, it is often confused with other malignant cutaneous tumors. We consider that histologically examining surgical specimens obtained via total resection, rather than incisional biopsy specimens, is important for correctly diagnosing EPC.

Introduction

Eccrine porocarcinoma (EPC) is an uncommon type of malignant tumor derived from the eccrine sweat glands [1]. EPC is very rare and only accounts for 0.005% of cutaneous

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malignant tumors [2, 3]. EPC often occurs in the seventh or eighth decade of life, and it most commonly occurs in the head and neck [1, 3]. We present a case of EPC on the lateral nose wall, in which the tumor was excised, and the resultant defect was reconstructed using a nasolabial flap. EPC exhibits various pathological features; therefore, it is often confused with other malignant cutaneous tumors.

Case Report

A 66-year-old female visited a peripheral hospital with a cutaneous tumor on her right lateral nose wall, which had been rapidly growing for 3 months. Histological analysis of a biopsy specimen suggested that the tumor was a squamous cell carcinoma (SCC). The patient was referred to the Department of Plastic and Reconstructive Surgery to have the tumor removed. At the first examination, she had a brown nodule on her right lateral nose wall, which measured 8 × 8 mm in size (Fig. 1). There were no palpable lymph nodes in the submandibular, preauricular, or cervical regions. She had hypertension and a surgical history of cholecystectomy. A positron emission tomography scan did not reveal any metastases.

Surgical excision was performed with a 3-mm margin above the nasal cartilage. The resultant defect measured 14 × 14 mm and was temporarily covered with artificial dermis. A histological examination showed tumor nests with stratified atypical squamous cells, and the neoplasm had invaded the epidermis. Tubular structures, which were suggestive of eccrine differentiation, and cystic spaces were present in the neoplasm (Fig. 2). The tumor diagnosis was histologically diagnosed as an EPC, and the surgical margins were negative. Fourteen days after the tumor was resected, the defect was repaired using a nasolabial subcutaneous flap. At the last examination, the flap was completely intact, and the lateral nose wall continued to exhibit a good appearance (Fig. 3). Follow-up at 9 months postoperatively showed no local recurrence.

Discussion and Conclusion

EPC is an uncommon type of malignant tumor that originates from the eccrine sweat glands [1]. EPC is very rare and only accounts for 0.005% of malignant cutaneous tumors [2]. Clinically, EPC presents as firm asymptomatic nodules or masses that are occasionally accompanied by erythematous to violaceous erosive lesions [1, 3]. EPC often occurs in the seventh or eighth decade of life and does not exhibit any predilection for either gender. The most common primary sites of EPC are the head and neck [1, 3], followed by the lower extremities [1].

Regarding the histological features and subtype of EPC, it was reported that EPC displays ductal differentiation, nests of basaloid cells, squamoid tumor cells, comedonecrosis, infiltrative spinal cells, acanthotic epidermis cells, and hyperchromatic nuclei [1]. EPC exhibits various pathological features, and therefore, is often confused with other malignant cutaneous tumors [3, 4]. Belin et al. [4] reported that 37% of cases with EPC were misdiagnosed as SCC. In our case, the tumor was initially diagnosed as an SCC, but the histological examination of the surgical specimen resulted in a diagnosis of EPC.

No standard treatment for EPC has been established, but primary EPC are usually treated via wide local excision or Mohs surgery with histologically clear margins [4–6]. The local recurrence rate of EPC was reported to be about 20% [7]. Cases with poor prognoses are reported to exhibit increased mitosis (>14 mitoses per high-power field), lymphovascular

invasion, and a tumor depth of >7 mm [6]. Chemotherapy and radiotherapy are recommended in cases involving metastasis or recurrence, although there is little evidence regarding the optimal chemotherapy regimen [1, 6]. In our case, the histologically resected tumor margin was laterally and vertically negative after local excision.

When reconstructing nasal defects, it is essential to maintain nasal prominence and appropriate texture and color matching [8]. Numerous flaps have been reported to be useful for nasal reconstruction [8]. Local flaps result in good color and texture matching and are technically easy to elevate. We used a subcutaneous nasolabial flap to reconstruct the surgical defect, which resulted in a good postoperative appearance.

We experienced a rare case in which an EPC arose on the lateral nose wall. EPC exhibits various pathological features; therefore, it is often confused with other malignant cutaneous tumors. We consider that histologically examining surgical specimens obtained via total resection, rather than incisional biopsy specimens, is important for correctly diagnosing EPC.

Statement of Ethics

The authors have no ethical conflicts to disclose. Informed consent was obtained from the patient.

Disclosure Statement

The authors have no conflicts of interest to declare.

Author Contributions

All named authors meet the International Committee of Medical Journal Editors (ICMJE) criteria for authorship for the manuscript, take responsibility for the integrity of the work as a whole, and gave final approval to the version to be published.

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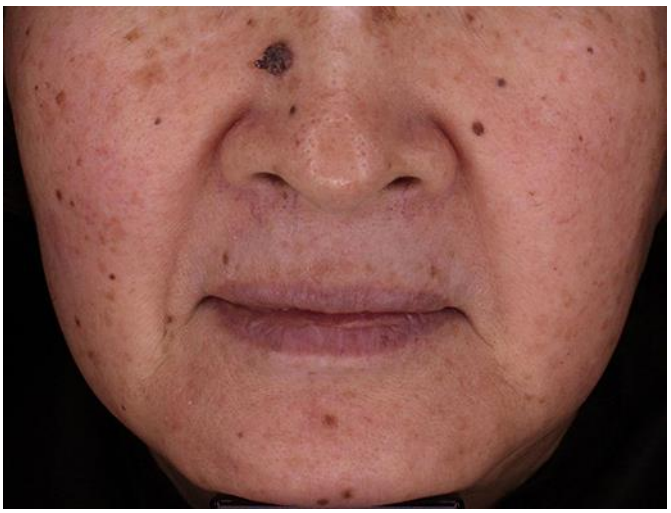

Fig. 1. A brown nodule, which measured 8 × 8 mm in size, was seen on the right lateral nose wall.

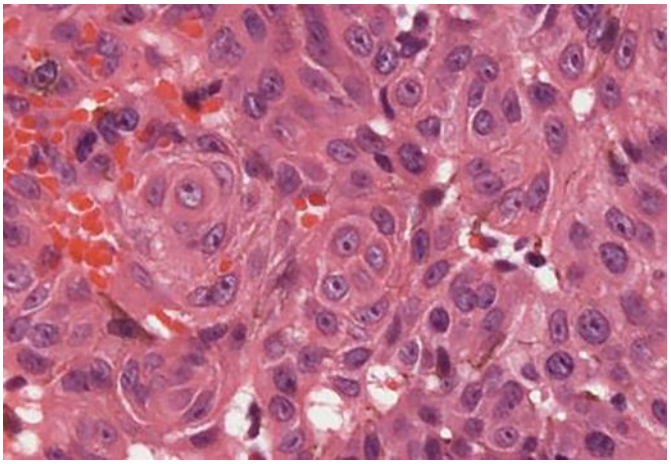

Fig. 2. A histological examination showed tumor nests with stratified atypical squamous cells. Tubular structures, which were suggestive of eccrine differentiation, and cystic spaces were present in the neoplasm. The tumor was diagnosed as an eccrine porocarcinoma.

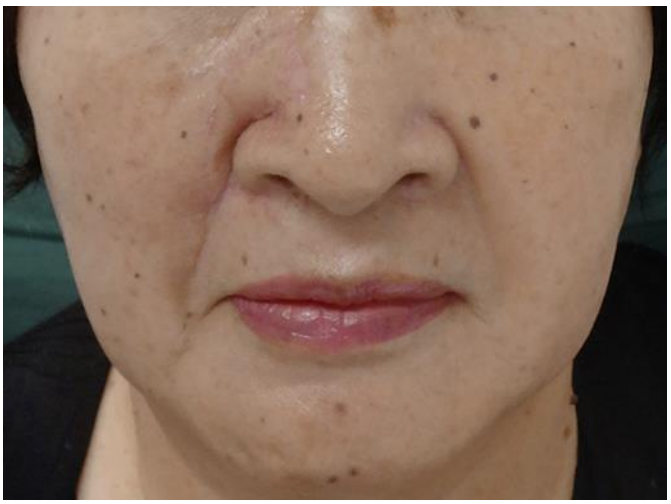

Fig. 3. Follow-up at 9 months postoperatively showed no recurrence.