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Successful Management of a Rare Giant Sebaceous Nevus of Hemifacial Region

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Abstract

This case report describes a 36-year-old woman who presented with a giant sebaceous nevus affecting her right periauricular area, right facial region, and neck. Excision of all lesions was performed. The remaining defect was reconstructed using local tissue flaps and full-thickness skin grafting, resulting in a favorable aesthetic outcome.

Keywords

Sebaceous Nevus, Giant Tumor, Surgery, Case Report

Introduction

Sebaceous nevi are typically present at birth and may enlarge over time. However, during puberty, hormonal changes can cause them to become raised, nodular, or wart-like, which may be aesthetically undesirable. This condition potentially leads to secondary cancers such as basal cell carcinoma, eccrine carcinoma, or sebaceous gland carcinoma. Early surgical excision is the primary treatment approach. This case report describes a giant sebaceous nevus affecting the right ear, face, and neck.

Case Presentation

The patient, a 36-year-old woman, presented with a large mass on her head. A 280 mm X 100 mm verrucous, seborrheic keratosis-like giant skin tumor had developed on the right side of her face, extending from the temporal hairline to the neck (**Fig-1A** and **Fig-1B**). The patient was referred to our department due to the gradual increase in size of the lesion, which significantly impacted her aesthetics. She experienced self-consciousness and reluctance to go out. She had no learning difficulties or maxillofacial skeletal deformities and no history of underlying conditions such as diabetes or hypertension. Head computed tomography and magnetic resonance imaging showed

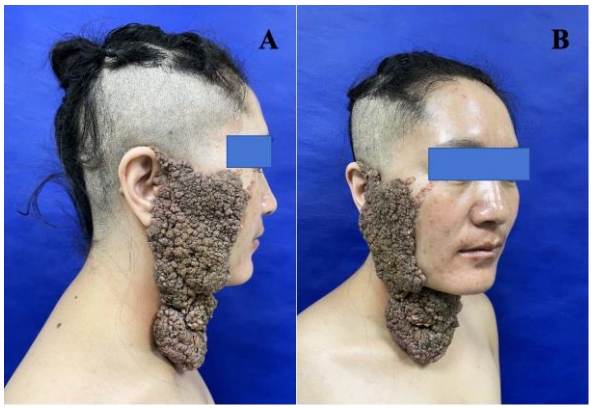

Fig-1 (A,B):

A 280mm X 100mm verrucous, seborrheic keratosis-like giant skin tumor had developed on the right side of her face, extending from the temporal hairline to the neck.

no tumor infiltration in the skull, no significant lymph node enlargement, and no findings suggestive of linear nevus sebaceous syndrome upon systemic examination. Familial and medical histories were unremarkable. Laboratory investigations, including complete blood cell count and liver and renal function tests, were all normal.

Therefore, we diagnosed her with a giant sebaceous nevus and planned an extended resection surgery. A 2-mm margin was taken for the neck and cheek area. The skin of the neck was excised at the level of the sternocleidomastoid, preserving the platysma muscles, while the lesion in the zygomatic and zygomatic arch area of the lateral orbit was excised at the level of the superficial fascia. The lesion on the auricle was resected, leaving part of the external auricular cartilage exposed (**Fig-2A**).

The missing part of the right auricle was reconstructed using a local rotation flap from the right ear postauricular area. The remaining defect was covered with a full-thickness skin graft harvested from a lax abdominal flap of the patient, with direct closure of the abdominal donor site. The pathological diagnosis confirmed sebaceous nevus. After wound healing, a scar remained, and the patient utilized silicone gel and scar patches to suppress hypertrophic scarring, along with undergoing two sessions of fractional laser therapy. The patient was followed up for 1 year with no signs of recurrence (**Fig-2B**).

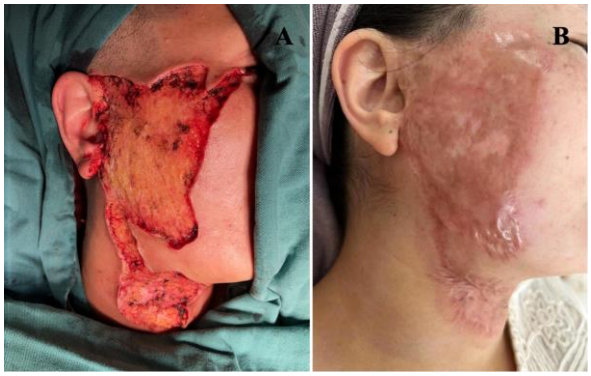

Fig-2:

The remaining defect after surgery (A) and No recurrence during one-year postoperative follow-up(B).

Discussion

Nevus sebaceous, initially documented by Jadassohn in 1895, is a type of hamartoma typically located on the scalp, face, and neck, occurring in approximately 0.3 percent of infants [1]. At birth, the lesion is flat, hairless, and yellow-orange, affecting all skin components except sweat glands. Puberty-triggered changes in nevus sebaceous can lead to unsightly wart-like growths, itching, irritation, ulceration, and hair loss, culminating in an aesthetically displeasing appearance and heightened psychological distress for individuals with giant nevus sebaceous.

Historically, multiple studies suggested that nevus sebaceous was commonly treated with surgical excision before puberty. These studies reported a 14-50 percent chance of malignant transformation, often resulting in basal cell carcinoma [2,3]. Masakatsu et al. also reported a rare case of a giant sebaceous nevus on the head with associated eyelid defects and three malignancies: sebaceous carcinoma, apocrine adenocarcinoma, and basal cell carcinoma [4].

Typically, nevus sebaceous is small and linear, allowing for simple excision and closure. However, larger lesions may necessitate more complex surgical techniques like tissue expansion, skin grafting, or local flap procedures, which come with higher risks of complications [5]. Several previous studies have demonstrated good outcomes following surgical treatment of nevus sebaceous [5,6]. Kyle J et al. suggested that when planning surgical interventions for nevus sebaceous, it's crucial to consider facial aesthetics, aiming to maintain natural features like brow and hairline position while minimizing tension in key areas like the mouth, eyes, and ears [7]. In this case, due to her limited time and refusal for tissue expansion, we proceeded with excision of the lesion followed by full-thickness skin grafting for wound repair, resulting in excellent aesthetic outcomes and high patient satisfaction.

Conclusions

In managing giant sebaceous nevus, it's important to consider factors like the associated impact on various facial aesthetic regions, post-pubertal changes affecting appearance, and compromised skin integrity due to irritation and ulceration. Surgical decisions concerning giant nevus sebaceous should consider these factors along with the reported risk of malignancy. Early

prophylactic excision may be suitable, provided it does not compromise function during reconstruction.

Conflict of Interest

The author has read and approved the final version of the manuscript. The author has no conflicts of interest to declare.

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