

Cutaneous Hamartoma in a Paediatric Patient: A Case Report on Accessory Eyelashes and Auricular Lesion

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Abstract: Background: Cutaneous hamartomas are rare, benign congenital malformations involving the abnormal proliferation of native tissue components in an irregular arrangement. They can present in various anatomical regions, often posing diagnostic challenges. Accessory eyelashes and auricular lesions are uncommon manifestations of cutaneous hamartomas, necessitating careful evaluation to differentiate them from other nevoid or choristomatous conditions.

Case Presentation: We report the case of a 4-year-old female with no significant medical history, presenting with a pedunculated lesion measuring 0.5×0.5 cm on the left outer canthus of the eye, along with a smaller lesion on the right ear. The lesions were asymptomatic, showing no erythema or discharge. The patient underwent surgical excision of both lesions under general anesthesia. The left accessory eyelash lesion was removed using an elliptical incision, while the right auricular lesion was excised and repaired with subcutaneous sutures. Histopathological examination of the left canthal lesion revealed large hair follicles intermixed with sweat glands and fatty tissue in the dermis, confirming the diagnosis of a cutaneous hamartoma. The findings excluded differential diagnoses such as distichiasis or choristoma.

Conclusion: This case highlights a rare presentation of cutaneous hamartoma involving accessory eyelashes and an auricular lesion in a pediatric patient. Surgical excision, coupled with histopathological analysis, remains the cornerstone for accurate diagnosis and effective management. Awareness of such atypical presentations is essential for early intervention, ensuring favorable cosmetic and functional outcomes. Further studies are needed to explore the pathogenesis and optimal management strategies for cutaneous hamartomas.

Keywords: Cutaneous hamartoma, accessory eyelashes, auricular lesion, pediatric case, histopathology.

1. Introduction

Cutaneous hamartomas are rare, benign developmental malformations characterized by the excessive proliferation of normal tissue components in an irregular arrangement. These lesions often arise from ectodermal or mesodermal origins and can occur in various anatomical locations [1-3]. Although they are typically asymptomatic, cutaneous hamartomas may present

as cosmetic concerns or lead to localized discomfort, particularly when situated near functional or sensitive areas, such as the eye or ear [4-5].

An unusual benign lesion known as a cutaneous hamartoma is defined by the aberrant proliferation of original tissue components [6-8]. Accessory eyelashes, or ectopic eyelashes, are uncommon lesions that may be congenital or acquired. They can arise in areas outside the typical lash line, often posing diagnostic and therapeutic challenges. In this case, the presence of a pedunculated lesion on the left outer canthus, along with a smaller auricular lesion, prompted further investigation to rule out other conditions, such as accessory eyelashes associated with choristoma or distichiasis. Histopathological evaluation remains the gold standard for distinguishing between these differential diagnoses and confirming the nature of the lesion [9-10].

This case underscores the importance of an interdisciplinary approach, including clinical assessment, surgical excision, and histopathological analysis, in managing cutaneous hamartomas. The findings add to the limited literature on accessory eyelash-related cutaneous hamartomas in pediatric patients, providing valuable insights into the diagnosis and management of this rare condition. This case further emphasizes the need for early recognition and treatment to ensure optimal cosmetic and functional outcomes for affected individuals.

2. Case Presentation

Clinical Findings

A 4-year-old female with no known medical history and up-to-date vaccinations presented to the clinic with a swelling on the left outer canthus of the eye. The lesion measured approximately 0.5×0.5 cm, was raised, pedunculated, and exhibited hair follicles (Figure 1). There was no noted increase in size, associated discharge, or erythema. Additionally, a smaller lesion was observed on the right ear. The patient exhibited no constitutional symptoms.



Figure 1: Initial presentation

Surgical Intervention

The patient underwent surgical excision of the lesions under general anesthesia. The right accessory auricle lesion was excised and repaired using subcutaneous 6.0 Vicryl sutures. The left accessory eyelash lesion was excised through an elliptical incision, followed by repair

with 6.0 Vicryl sutures. Both surgical sites were dressed with dermal sheets and Steri-Strips (Figure 3).

Histopathological Evaluation

Clinical Information

The excisional biopsy specimen was obtained from the accessory eyelashes on the left outer canthus.

Gross Description

The excised specimen measured $0.8 \times 0.5 \times 0.5$ cm and was submitted in one block for histopathological examination (Figure 2).

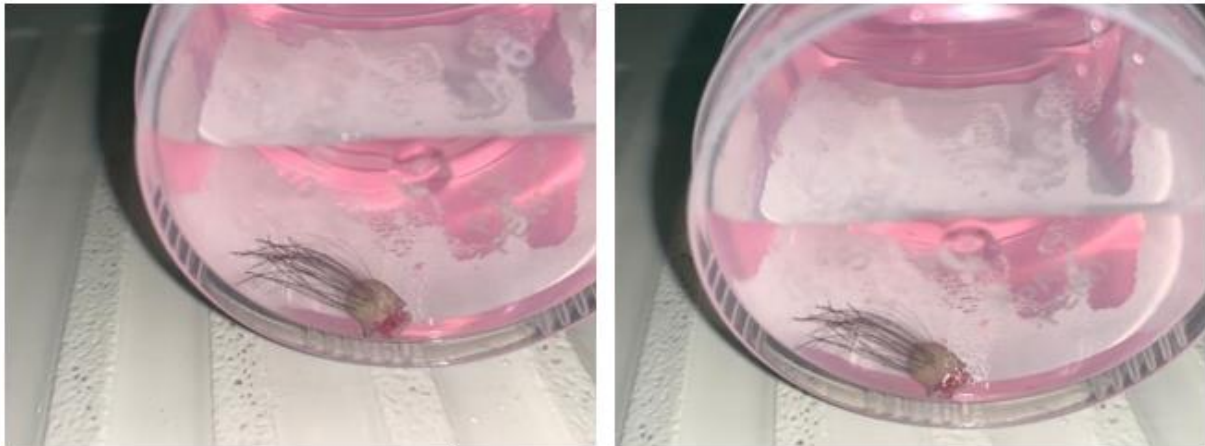


Figure 2: Gross features

Microscopy

Microscopic examination revealed large hair follicles intermixed with sweat glands in the dermis and surrounded by fatty tissue. The findings were distinct from other conditions, such as accessory eyelashes (choristoma) or distichiasis, which involves accessory rows of eyelashes emerging from the meibomian gland openings. The pathology was consistent with a hair follicle nevus, a nevoid skin lesion, or more specifically, a cutaneous hamartoma characterized by prominent hair follicles.

Diagnosis

The final diagnosis was a cutaneous hamartoma.



Figure 3: Patient after resolution

3. Discussion

Cutaneous hamartomas are congenital benign lesions that arise from the overgrowth of normal tissue components in an atypical arrangement. Accessory eyelashes and auricular lesions, as seen in this case, are uncommon presentations of this condition. Surgical excision is

often the treatment of choice, with histopathological analysis confirming the diagnosis. Differentiating cutaneous hamartomas from other nevoid or choristomatous conditions is critical to understanding the nature of the lesion and guiding management.

Benign tumors of the hair follicles, known as basaloid follicular hamartomas (BFH), may manifest as a solitary lesion or in clusters or linear groupings on the head, neck, or trunk [1]. Two instances of BFH affecting the upper eyelids in adults have been documented before [8-9]. Although BFH are generally benign, there have been very rare instances of malignant transformation and the tumors may look like basal cell carcinomas [2]. Alopecia, Graves' disease, myasthenia gravis, systemic lupus erythematosus, and congenital disorders are also common companions [3-7].

They may be seen next to the infundibulum of a hair follicle and appear clinically as smooth papules that are flesh-colored. Histopathology reveals lattice patterns of interwoven basaloid strands. Our pathology differed from basal cell carcinoma in that there was no mitotic activity, artifactual retraction gaps between the stroma and the epithelium, and no nuclear atypia. According to some researchers, BFH may be identified by immunohistochemical staining because they are negative for Ki-67, stain positively for CD34 and CD10 throughout the stroma and vasculature, and only stain positively for the BCL-2 gene at the periphery [10, 11]. On the other hand, basal cell carcinomas usually stain positive for Ki-67 and the BCL-2 gene all across the lesion.

Based on factors such as age, lesion location, and distribution, the differential diagnosis for basaloid follicular hamartoma might vary. The ophthalmic literature often describes benign tumors of the hair follicles, the most prevalent of which are tricolliculoma, trichilemmoma, and trichoepithelioma. Basal cell carcinoma should not be suspected in pediatric patients without Gorlin syndrome, but in adults it should be seriously addressed. I suggest total surgical excision whenever feasible [12].

4. Conclusion

This case illustrates a rare presentation of cutaneous hamartoma in a pediatric patient involving accessory eyelashes and an auricular lesion. Early recognition, surgical intervention, and histopathological confirmation are key to effective management. Further studies are warranted to explore the pathogenesis and optimal treatment approaches for such rare presentations.

Ethical consideration

Patient's parents gave permission to use photos for research purposes without any identifications.

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