

A Puzzling Case of Dermoscopy of Nodular Hidradenoma Mimicking Basal Cell Carcinoma

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Abstract

The hidradenoma is a benign adnexal tumor, rare, deriving from the sweat glands, of eccrine or apocrine origin. It has multiple clinical variants. NH can originate from any cutaneous site, but the most common sites are the head and anterior surface of the trunk, with very rare cases in the extremities. NH represent a dermoscopic pitfall, being difficult to differentiate clinically and dermoscopically from basal cell carcinomas and melanomas. But biopsy with histology remains mandatory to rule out malignant forms. Surgical resection emphasizing tumor-free margin is considered the mainstay of treatment for NH to prevent local recurrence and malignant transformation. We present a rare case of NH and review of the literature to increase the awareness of this clinical entity.

Keywords: Hidradenoma • Basal cell carcinoma • Adnexal tumor

Introduction

The hidradenoma is a rare benign adnexal tumor [1], deriving from the sweat glands, of eccrine or apocrine origin [2]. It has multiple clinical variants. Dermoscopy is useful in establishing the diagnosis. But Biopsy is important. However; hidradenoma shows striking similarity to other neoplasms, including its malignant counterpart, hidradenocarcinoma, and BCC. This case report highlights the need to identify these tumors as a differential for painless soft tissue tumors on the scalp

The patient states that the cyst initially began small but has gradually enlarged over a period of 2.5 months. She denies any associated pain, drainage, fever, chills, or unexplained weight loss. Physical examination showed 0.6 × 0.4 × 0.4 cm slightly erythematous mucus retention cyst of the scalp that is non-tender and firm to palpation. No cervicall lymphadenopathy was detected.

The dermoscopy revealed an absence of a pigmented network, a tree trunk vascularization, blue gray blood cells, which led us to basal cell carcinoma (Figure 2).

Case Report

The patient is an 82-year-old female with no significant medical history who is presented for an evaluation of a bleeding scalp nodule. It appeared 6 months ago as a papule, asymptomatic; progressively increased in size. Physical examination showed a large hemispheric nodule, measuring 2 cm × 2 cm × 2 cm in diameter, warm, painful and firm on palpation, letting pus weld (Figure 1).



Figure 1. Study enrolment and randomization

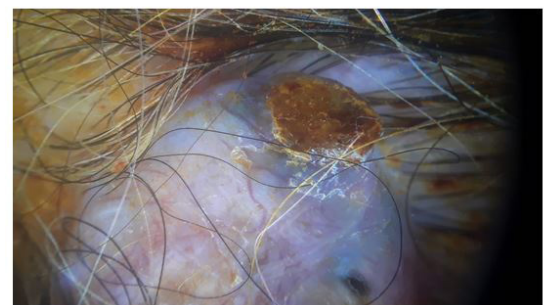


Figure 2. Dermoscopic appearance suggestive of basal cell carcinoma.

Excisional biopsy of the mass was done, where in it was removed in en masse with a 2 cm healthy margin and was sent for histopathological examination.

Biopsy finds a well-limited benign dermal tumor proliferation has lobular architecture. it is in places hollowed out with cystic cavities filled with an eosinophilic infiltrate as well as canaliculi. it is made of polygonal cells with eosinophilic cytoplasm and regular rounded central nuclei and without cytonuclear atypia, nor mitosis within a hyaline stroma.

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It's in favor of a benign hidradenoma with no signs of malignancy. The postoperative period was uneventful.

Directed healing was used rather than skin grafting with good progress under the alginate adhesive plaster (Figure 3)



Figure 3. The area of surgical excision after 1 month

Routine follow up 3, 6 and 12 months later showed no signs of recurrence.

Results and Discussion

NH was first described in 1949 by Liu, as clear cell papillary carcinoma of the skin. NH have variable histomorphological patterns, with high potential of aggressive behavior. It is most often found in adults than children. It affects a wide age group with a peak in adulthood with a slight predominance in women. It is known under variable names, including eccrine acrospiroma, solid-cystic hidradenoma, lumpy hidradenoma, clear cell hidradenoma, and clear cell acrospiroma. Its histogenesis is still unknown. Generally, it is accepted that they originate from the eccrine or apocrine glands [3, 4].

The NH usually presents as a solitary, asymptomatic, well-circumscribed, slow-growing mass composed of lobulated, cystic, or pedunculated lesions that reside in the upper or middle dermis but sometimes extending deep into the tissue beneath. The surface of the swelling was smooth with reddish discoloration, numerous dilated blood vessels with few areas of pus pointing. The surrounding area appeared normal. Their sizes range from 5 to 30 mm and are most often found in the head, face and upper limbs [5], rarely at the level of the upper lip and eyelids.

Any rapid growth may indicate trauma, sudden hemorrhage, or malignant transformation. Although NH is a benign tumor, its biological behavior is unpredictable, and it can undergo malignant change to MNH at any time.

The clinical differential diagnosis of non-ulcerated lesions includes BCC [6], dermatofibrosarcoma protuberans, leiomyoma, follicular cyst, and trichilemmoma.

Nodular BCC is the most common subtype, accounting for ~50% of all BCCs. Lesions typically present as a shiny, pearly papule or nodule with a smooth surface and the presence of arborizing telangiectasias. With time, the tumor can enlarge and ulcerate.

Dermoscopy is a noninvasive technique that has been demonstrated to improve diagnostic of hidradenoma and BCC.

BCCs have multiple dermoscopic features. According to Wozniak-Rito et al, [7]. BCC can only be diagnosed in the absence of a pigment network and in the presence of at least 1 of the following structures: blue-

gray ovoid nests, maple leaf-like areas, a spoke-wheel pattern, ulceration (not associated with recent trauma), and arborizing telangiectasias [8]. The dermoscopic features of nodular hidradenoma have been described by Serrano and colleagues [9].

They concluded that these vascular patterns are not specific of hidradenomas and these have been published in association with other benign or malignant tumors, including BCCs and melanoma [10].

The vascular patterns include arborizing telangiectasias, linear-irregular vessels, dotted vessels, glomerular vessels, hairpin vessels, telangiectasias and polymorphous atypical vessels. These patterns are appreciated due to branching vascular pattern with a staghorn configuration. These tumors often cause immense diagnostic difficulty.

The surgical pathology report showed currently a well-circumscribed mass composed of bland cells in trabeculae and small nests, separated with dense hyalinized stroma and delicate vasculature. Focal clear cell changes are present, as well as duct formation and focal mucinous cells. The histologic appearance does not always predict the behavior of clear cell hidradenoma.

The mainstay treatment is a full surgical excision, with appropriate margins is important to prevent local recurrence. Furthermore, hidradenoma has a recurrence rate of approximately 12% if not fully excised, especially in lesions with irregular peripheral margins [3].

On the contrary, management of BCC should be more aggressive with wide resection. Although the importance of surgery has been established, the role of loco-regional lymphadenectomy and adjuvant therapy has yet to be fully determined.

Conclusion

NH is a benign adnexal tumor, with clinical behavior is unpredictable. NH is a simulator of malignant lesions, including basal cell carcinomas and melanomas on clinical and dermoscopic examination. The surgical excision and close follow up of the patients is recommended. Early diagnosis and appropriate treatment are crucial to prevent local recurrence and malignant transformation.

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