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Poroid Hidradenoma: Succesfully Treated with Excision A Case Report

Poroid Hidradenom: Eksizyon ile Başarılı Tedavi Edilen Olgu Sunumu

Öyküm ÖZALP[1], Alp Eren KÖROĞLU[1], Emine Tuğba ALATAŞ[1], Suzan Demir PEKTAŞ[1], Havva ÖZŞEKER[2]

[1]Mugla Sıtkı Kocman University, Faculty of Medicine, Department of Dermatology and Venereal Diseases, Mugla, Turkey
[2]Mugla Sıtkı KocmanUniversity, Faculty of Medicine, Department ofPathology, Mugla, Turkey

Öz

Poroid hidradenom (PH), ekrin ter bezinin farklılaşmasını gösteren nadir görülen iyi huylu bir tümördür. Çoğunlukla yetişkinlerde görülür ve 0,5 ila 2 cm boyutlarında, çoğunlukla baş, boyun ve gövdede intradermal nodül olarak bulunur. Literatürde alt ekstremitede bildirilen PH sayısı yaklaşık 17'dir, bu da alt ekstremitenin nadir bir tutulum bölgesi olduğunu göstermektedir. Bu olgu sunumunda, alt ekstremitede soliter lezyonu olan ve total eksizyonla başarılıyla tedavi edilen ve iki yıl boyunca takip edilen hastamızın herhangi bir nüks göstermeyen nadir PH vakasını sunarakliterature katkıda bulunmayı amaçladık.

Anahtar Kelimeler: Adneksiyal tümörler, Ekrin bezler, Poroid, Eksizyon

Abstract

Poroid hidradenoma (PH) is a rare benign tumor that shows the differentiation of the eccrine sweat gland. It is usually seen in adults and is seen as an intradermal nodule measuring 0.5 to 2 cm, most commonly located on the head, neck, and trunk. The literature describes approximately 17 cases of PH in the lower extremity, indicating that it is an uncommon site of involvement. In this case report, we aim to contribute to the literature by presenting a rare case of PH with a solitary lesion in the lower extremity, which was successfully treated with total excision, with no recurrence observed during a two-year follow-up.

Keywords: Adnexal Tumors, Eccrine glands, Poroid, Excision

Introduction

Poroid hidradenoma is a rare benign neoplasm with eccrine differentiation (1). Since its initial description in 1990, fewer than 20 cases have been reported in the literature (2). PH typically, is a solitary tender nodule with a diameter ranging from 0.5 to 2 cm It appears skin-colored or slightly reddish and consists of both solid and cystic components, confined within the dermis (3). The most common sites of involvement are the head and neck regions, with a predilection for the centrofacial area (approximately 85% of cases). Less frequently, it occurs in the axilla, trunk, and extremities (4).

Surgical treatment of PH involves radical excision of the lesion with a 4-mm margin to minimize the risk of recurrence or malignant transformation. Similar to other skin malignancies, excision should extend to the fascia layer (5). We present this case because PH is a rare benign tumor. Our case demonstrates that wide local excision with a 4-mm margin is the definitive treatment, with no recurrence observed during a two-year follow-up.

	ORCID No
Öyküm ÖZALP	0009-0006-5463-115X
Alp Eren KÖROĞLU	0009-0009-9334-5043
Emine Tuğba ALATAŞ	0000-0002-5727-9474
Suzan Demir PEKTAŞ	0000-0001-5074-986X
Havva ÖZŞEKER	0000-0001-5615-5923

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Adres / Correspondence : Öyküm ÖZALP
Mugla Sıtkı Kocman University, Faculty of Medicine, Department of Dermatology and Venereal Diseases, Mugla, Turkey
e-posta / e-mail : oykum-ozalp@hotmail.com

Case

A 42-year-old male presented with a painless, non-itchy cyst in the inferior left patella region that had been present for approximately three to four years. He was initially diagnosed with a soft tissue infection at an external center, where he was prescribed oral antibiotic therapy. However, the lesion continued to enlarge despite treatment.

Upon presentation at our clinic, physical examination revealed a nodular cystic lesion in the left leg, which was elastic in consistency and mobile, resembling a gelatinous fluid-filled structure (Figure 1).

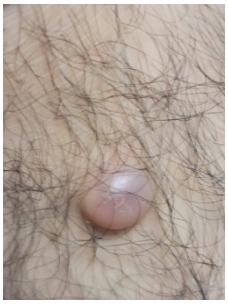

Figure 1. The nodular cystic structure in the leg area was palpable with anelastic consistency and mobile as if it contained gelatinous fluid.

A cyst puncture was attempted, yielding a small amount of serosanguineous fluid, but the lesion size remained unchanged (Figure 2). The patient was subsequently referred to plastic surgery for total excision.

The differential diagnosis included dermatofibroma, eccrine poroma, Kaposi sarcoma,

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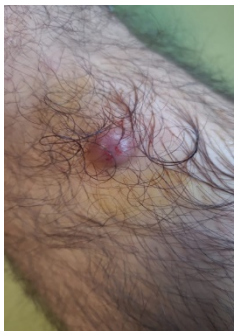
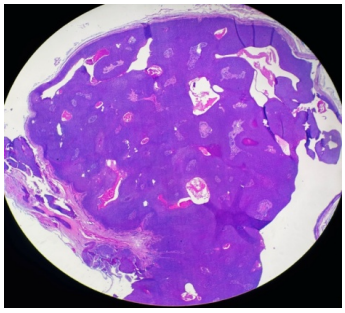


Figure 2. An attempt was made to perform a cyst puncture on the nodular lesion, but no material was removed.

hemangioma, angiokeratoma, and poroid hidradenoma. A wide local excision with a 4-mm margin extending to the fascia layer was performed by the surgical team.

Histopathological examination of the excised lesion confirmed poroid hidradenoma, revealing a dermal tumor composed of solid and cystic components. Tumor nests contained small, dark poroid cells and larger, pale cuticular cells with clear cytoplasm (Figure 3).

The patient recovered uneventfully, and no recurrence was observed during a two-year follow-up period.

(A). 

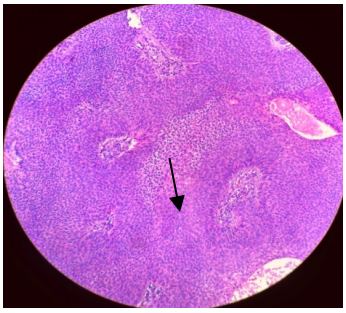
(B). 

Figure 3. (A) Tumor composed of solid and cystic components in the mid dermis (H&E, x40), **(B)** Solid tumor cells nest composed of small dark poroid cells (White arrow) and larger pale cuticular cells (black arrow) with clear cytoplasm (H&E, x20).

Discussion

PH has a wide age distribution, with peak incidence in the seventh decade of life (1). No gender or ethnic predilection has been reported (1). Our patient was 42 years old, younger than the typical age range. The most commonly affected site is the head and neck, followed by the axilla, trunk, and extremities (2). Involvement of the lower extremity, as seen in our case, is exceedingly rare.

Histopathological examination of PH typically reveals solid and cystic components, confined to the dermis (6). The tumor consists of two distinct cell types: poroid cells, which are small, uniform cuboidal cells with oval-round nuclei, and cuticular cells, which have abundant eosinophilic cytoplasm with larger, sometimes multinucleated nuclei. Cystic spaces contain eccrine secretory fluid and are lined by flattened epithelial cells (4). Our case exhibited these classic histopathological features.

The differential diagnosis of PH includes other poromas (hidroacanthoma simplex, dermal duct tumor, eccrine poroma) and apocrine hidradenoma. While hidroacanthoma simplex contains nests of round cells within normal epidermal cells, dermal duct tumors are located entirely within the dermis. Eccrine poroma, on the other hand, features a distinct border between normal epidermal keratinocytes and dark cuboidal cells. Apocrine hidradenomas secrete mucoid material and exhibit decapitation secretion, characteristic of apocrine differentiation (7).

Although PH is typically covered by intact skin, approximately 15% of cases exhibit ulceration, often due to trauma or lesion erosion (8). Our case showed no ulceration. Some PHs exhibit a bluish hue due to the Tyndall effect of cystic components, similar to angiomas, melanomas, and nevi, necessitating careful differential diagnosis (8).

Wide local excision with a 4-mm margin extending to the fascia layer remains the gold standard for treatment, as PH originates from dermal tissue. Although the prognosis of PH is excellent, one case of recurrence has been reported in the literature (9). In our case, the patient remained recurrence-free at the two-year follow-up.

Conclusions

PH is effectively treated with total excision, and its malignant transformation risk is minimal (<1%). The prognosis is favorable, and recurrence is rarely reported. This case highlights the diagnostic challenges associated with PH, particularly when it occurs in uncommon locations such as the lower extremity. Histopathological evaluation is essential for differentiation from other adnexal neoplasms, and wide local excision remains the definitive treatment.

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Conflict of interest statement

There are no conflicts of interest.

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