

## POROID HIDRADENOMA WITH NECROSIS EN MASSE AND CALCIFICATION

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### Abstract

Poroid hidradenoma is a rare benign cutaneous neoplasm which should be considered in the differential diagnosis of cutaneous solid-cystic lesions. It is a rare variant of poroid neoplasm. Adequate surgical excision is required to prevent recurrence. Here we are describing same case in 32 year male.

**Key words:** Poroid hidradenoma, Poroid cells, Cuticular cell, ductal differentiation

### Introduction

Poroid hidradenoma is a rare benign cutaneous neoplasm with eccrine differentiation, which represents architectural features of hidradenoma, with solid and cystic areas and cytological features of poroid neoplasm such as poroid and cuticular cells<sup>1</sup>. Complete surgical excision is required to prevent the recurrence. Here we are reporting a case of same, in a 32 year male patient.

### Case History

A 32-year-old otherwise healthy male presented with a solitary painless nodule over the forehead, present for the preceding 2 years. Lesion was tiny initially, which had gradually increased in dimensions to attain the present status. Family history, medical and surgical history were unremarkable. On cutaneous examination, there was a 1cm x 1.5cm, firm, erythematous nodule arising from the forehead [Figure 1]. Excision biopsy was performed under aseptic precautions.

Microscopic examination showed a well-circumscribed, tumor with solid elements and cystic spaces located within the dermis without any epidermal attachment (Figure 2). Solid islands composed of cells showing dark bluish nuclei with abundant cytoplasm and cystic spaces filled with hyalinised eosinophilic material (Figure 3). On further magnification poroid cells with round darkly bluish stained nuclei with abundant cytoplasm along with cuticular cells showing pale nuclei surrounding the duct were seen (Figure 4). At some solid areas necrosis en masse with calcification was seen (Figure 5). Based on clinicopathological correlation, a diagnosis of poroid hidradenoma was done.

### Discussion

Hidradenomas are tumors arising from sweat glands, which are of two types. One group comprises tumors developing from eccrine sweat glands, and these are characterized by dermal nodules having predominantly cuticular and poroid cells. These are designated as “poroid hidradenomas.” The second group is characterized by tumors with apocrine differentiation, composed of mucinous, polygonal, and clear cells<sup>2</sup>.

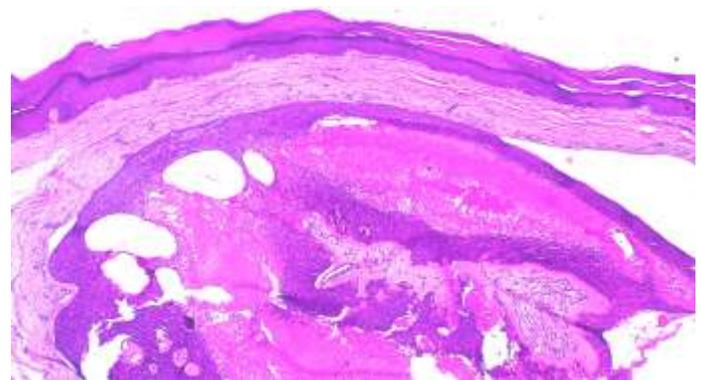
Besides, there are four variants of poroid neoplasms based on the



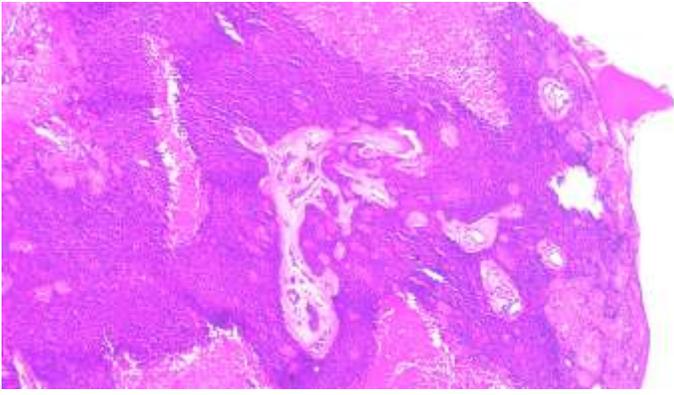
**Figure 1 :** Solitary firm, red nodule over forehead.

location of the neoplastic cells, namely, hidroacanthoma simplex, dermal duct tumor, poroid hidradenoma, and eccrine poroma<sup>2</sup>.

Poroid hidradenoma is a rare benign neoplasm described by Abenzoza and Ackerman in 1990.<sup>1,3</sup> The onset ranges from 28 to 77 years<sup>4</sup>, with a peak of incidence in the seventh decade. The incidence is approximately equal in male and female patients<sup>4</sup>. Clinically, the tumor presents as a well-circumscribed red to blue

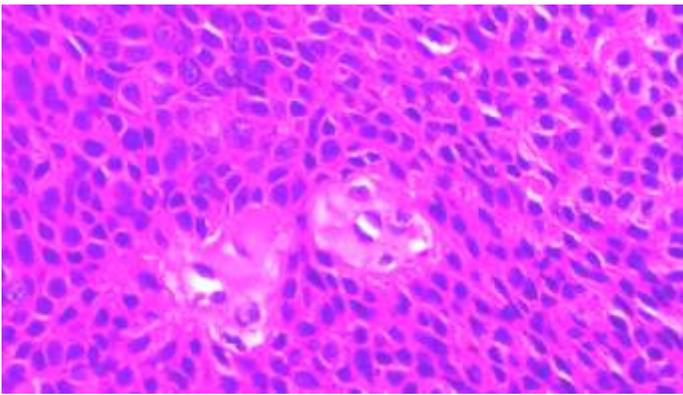


**Figure 2 :** A tumor with solid elements and cystic spaces located within the dermis. (Hematoxyline & Eosin stain) (2x magnification)



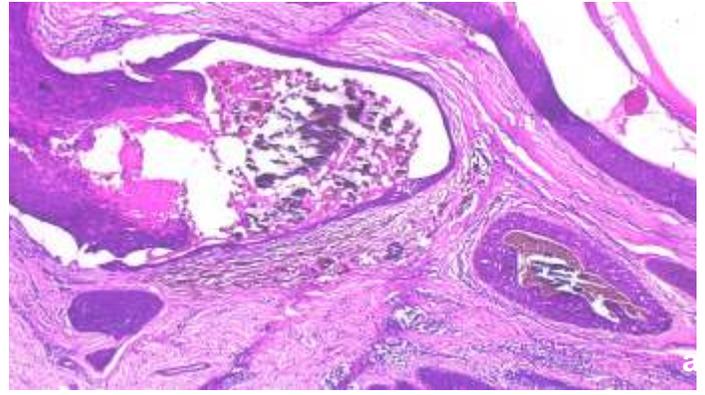
**Figure 3 :** Solid islands composed of cells showing dark bluish nuclei with abundant cytoplasm and cystic spaces filled with hyalinised eosinophilic material. 20x magnification. (Hematoxyline and Eosin stain)

papule, nodule, or plaque (1–2 cm in diameter) over head and neck most commonly<sup>4</sup> with a predilection for centro-facial region (about 85% of cases). Less frequent sites include axilla, trunk and extremities.<sup>4</sup>



**Figure 4 :** Poroid cells with round darkly bluish stained nuclei with abundant cytoplasm along with cuticular cells showing pale nuclei around ducts. 40x magnification. (Hematoxyline and Eosin stain)

Histopathologically, these are hybrid lesions, showing cytological characteristics of poromas with poroid and cuticular cells<sup>1</sup> and architectural features of hidradenoma, which is an intra-dermal, solid-cystic tumor. As the term poroid hidradenoma reflects, this tumor has both poroma and hidradenoma like features.<sup>1,2,5,6</sup> In most cases, no connection of the tumor lobules with the surface epidermis are noted; however, in some instances, the islands merges with the epidermis. Necrosis en masse is known to occur in poroma<sup>7</sup> but till date no



**Figure 5 :** Some solid areas show tumor necrosis en masse with calcification. 20x magnification. (Hematoxyline and Eosin stain)

case of poroid hidradenoma showing features of necrosis en mass and calcification has been reported. The diagnosis of poroid hidradenoma is based on histological examination of tissue samples. And it is treated by complete excision of lesion to prevent recurrence.

**Conclusion** – Poroid hidradenoma is a relatively newly described variant of poroma, and very few cases have been reported in the literature. It is benign condition with good prognosis and rarely metastasize. Histopathological confirmation is the key point of diagnosis.

#### How to cite this article:

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