

## POROID HIDRADENOMA: REPORT OF A PATIENT IN WHOM THE TUMOR SIMULATED A PYOGENIC GRANULOMA

Yoshio TSUJINO and Satoshi DEKIO

*Department of Dermatology, Shimane Medical University, Izumo 693-8501, Japan*

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We report on a 41-year-old Japanese male patient with poroid hidradenoma on the right cheek. His case is interesting since his tumor simulated clinically a pyogenic granuloma which suggests that this kind of tumor may appear like the clinical appearance of a pyogenic granuloma.

Key words: poroid hidradenoma, face, pyogenic granuloma

### INTRODUCTION

Poromas, the benign tumors originating from the intraepidermal eccrine sweat duct, have been classified into three types: eccrine poroma, hidradenoma simplex and dermal duct tumors (1). In 1990, Abenoza and Ackerman added a fourth type: poroid hidradenoma (PHA) (2). PHA was named to the benign, intradermal, poroma cell tumor constructed by solid and cystic components, like solid cystic hidradenoma. PHA has only rarely been mentioned in literature. In this paper, we report on a recently encountered Japanese male patient who developed a PHA tumor on the face which clinically simulated a pyogenic granuloma.

### PATIENT

A 41-year-old Japanese man with a raised nodule on his right cheek came to our clinic on August 14, 2000. He had noticed a small papule on his right cheek approximately two years previously.

It had gradually increased to become finger-tip-sized. When he presented, a slightly erythematous, dome-shaped, soft nodule 5 mm in diameter was

seen on his right upper cheek (Fig. 1). He did not complain of pain or itching on the nodule. Since the nodule was covered with the smooth, darkly red skin accompanying some translucent capillaries, the clinical diagnosis was given as pyogenic granuloma to the nodule (3). The nodule was surgically excised under local anesthesia on September 8.



Fig. 1. Clinical appearance: a dome-shaped nodule on the upper right cheek.

Under low magnification of the H-E stained section from the excised specimen, a single multilobular tumor composed of solid and cystic components was seen within the dermis (Fig. 2A). There was no connection between the tumor and the epidermis. The solid components contained mainly monomorphous cells with small, dark nuclei and scanty cytoplasm (poroid cells) (Fig. 2B). However, pleomorphic cells with cuboidal, dark nuclei (cuticular cells) and larger cells with pale nuclei and pale cytoplasm (clear cells) were also seen here and there (Fig. 2C). The cytoplasm of not only the poroid cells, but also the other two types of cells contained a PAS positive, diastase-digestible substance, i. e., glycogen. S-100 protein was shown to be present in the tumor cells.

Correspondence: Yoshio Tsujino, MD, Department of Dermatology, Shimane Medical University, 89-1 Enya-cho, Izumo 693-8501, Japan.

Tel: (+81) 853-23-2210

Fax: (+81) 853-21-8317

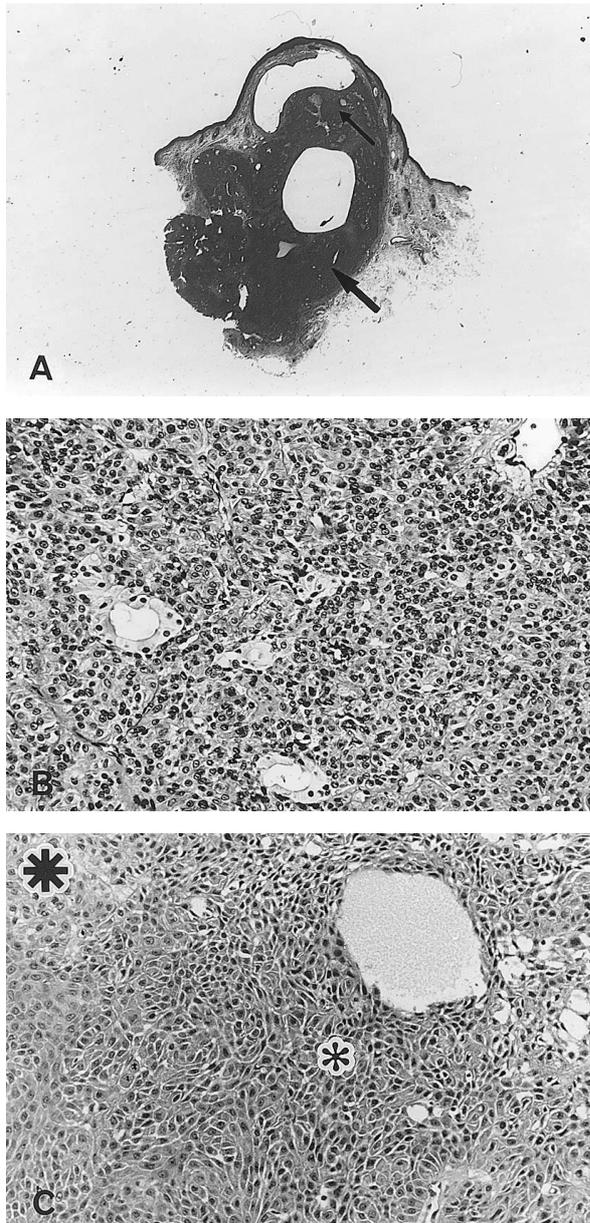


Fig. 2. Histopathology of the tumor. A: the tumor was located in the dermis and composed of solid and cystic components (H-E stain,  $\times 8$ ). B: small, dark, monomorphous cells (poroid cells) ( $\times 800$ , large arrow in A); C: larger cells with pale nuclei and cytoplasm (clear cell, \*) and pleomorphic cells with cuboidal nuclei (cuticular cells,\*) ( $\times 800$ , small arrow in A).

## DISCUSSION

The tumor on the face of our patient was composed of solid and cystic components, and the solid components consisted mainly of poroid cells. These pathological findings indicated that the tumor was PHA although a small number of the cuticular and clear cells were also seen. In our patient, however, the PHA tumor also had a few characteristics of solid cystic hidradenoma (4). This indicates that the pathogenesis of PHA and solid cystic hidradenoma may be somewhat similar to each other.

We summarized the PHA tumors reported from Japan in Table 1. The PHA tumors have appeared as erythematous or brownish, soft, cystic or firm, cutaneous or subcutaneous nodules on the scalp, neck, flank, elbow, knee and foot in adults of both sexes. In our patient, the tumor developed on the right upper cheek with the clinical appearance of a pyogenic granuloma. This case indicates that PHA may appear on the face as a nodule simulating a pyogenic granuloma.

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TABLE 1. Poroid Hidradenoma: Review of the Literature (1990-2001)

Patient	Age/sex	Area	Duration	Size (mm)	Symptoms	Reference
1	61/M	right side of the back	1 year	30×25	solitary, soft tumor covered by smooth skin	(5)
2	72/M	left flank	5~6 years	8×13×7	dark brown tumor with blood crust	(6)
3	36/F	right side of the parietal region	1 year	unknown	subcutaneous tumor	(7)
4	61/F	posterior aspect of the right knee	3 years	22×20	soft, cystic, light brown, dome-shaped nodule	(8)
5	68/M	neck	unknown	unknown	firm, intradermal nodule	(9)
6	54/M	temporal region	10 years	13×17×8	soft, erythematous tumor	(10)
7	56/F	left foot	12 years	45×30×25	lobulated mass	(11)
8	77/F	left elbow	several years	27×24	slightly elevated nodule	(12)
9	41/M	right cheek	2 years	5×5	slightly erythematous, dome-shaped, soft nodule	our case

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