



Polypoid Basal Cell Carcinoma on the Right Groin: A Case Report and Review of Literature

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Basal cell carcinoma (BCC) is the most common type of skin cancer. Polypoid BCC is very rare and distinguishes from other types of BCC by being female predominant, locating on nonsun-exposed areas, prevailing in dark-skinned races, and having large average size, but considered nonaggressive. We report a case of BCC presenting as an inconspicuous polyp. A 40-year-old female sustained a slowly growing mass at the left groin for many years. Physical examination revealed a polypoid mass over the right groin without specific symptoms. Surgical removal with simple polypectomy was performed, whereas the pathological features revealed BCC with polyp feature. There has been no recurrence after the surgery. This case highlights the importance of remaining clinically alert to differentiate a benign-looking polyp.

Key words: Basal cell carcinoma, groin, polyp

INTRODUCTION

Basal cell carcinoma (BCC) is the most common malignant neoplasm of the skin. BCC typically develops on sun-exposed skin of elderly individuals. In general, it can be classified into nodular, pigmented, superficial, infiltrative, sclerosing, and fibroepithelioma of Pinkus (FEP).¹ However, an unusual polypoid type can be present. In 1999, Megahed proposed this new clinicopathological variant as polypoid BCC.² To the best of our knowledge, less than fifty cases of polypoid BCC have been reported in English literature. Herein, we present a rare case of polypoid BCC on the right groin of a middle-aged woman.

CASE REPORT

A 40-year-old Taiwanese woman noticed a slowly growing asymptomatic mass on her right groin of 5–6 years' duration. The nodule enlarged rapidly over the past year. She denied a history of arsenic exposure, for example, drinking well-water. No other family members presented similar skin lesions. Physical examination revealed a Bordeaux red nodule with stalk, measuring

0.8 cm × 0.8 cm × 0.3 cm over the right groin [Figure 1]. The surface was flat and smooth with few comedo-like pits. Under the impression of pigmented nevus, strangulated fibroepithelial polyps, or seborrheic keratosis, simple polypectomy was performed, and the specimen was sent for pathological examination. Histopathology revealed a polypoid lesion consisting of aggregations of neoplastic basaloid cells, which were confined to the polypoid region [Figure 2a]. These lobules of basaloid cells extend from the epidermis [Figure 2b and 3a]. Prominent peripheral palisading was observed, associated with mucin and melanin pigments in the solid tumor nest. In addition, dilated blood vessels were seen in the surrounding dermis [Figure 2c]. However, no long strands of interwoven basalioma cells were embedded in fibrous stroma as FEP. Surgical margins were tumor free. Immunohistochemistry staining showed positive Ber-EP4 [Figure 3b] and Bcl-2 [Figure 3c]. From the clinicopathological findings, the final diagnosis was polypoid BCC. No recurrence has been noted after the surgery so far.

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DISCUSSION

BCC is the most common skin neoplasm, particularly in Caucasians. Diverse manifestations give rise to various subtypes. Clinically, it can be classified into superficial, nodular, pigmented, ulcerating, cystic, and sclerosing patterns.¹ Histological variants are nodular, micronodular, fibroepithelial, adenoid, morphea form, and infiltrative types.³ An exceptional appearance as a polypoid lesion is very rare. Megahed reported four cases of polypoid BCC and defined it as a new clinicopathological variant in 1999.² Polypoid BCC stands out from other subtypes by its distinctive shape. Clinically, there is a stalk attaching the lesion to the skin surface. Histologically, it has a pedunculated exophytic appearance, and tumor aggregations are confined to the polypoid region.



Figure 1: Solitary pigmented polypoid nodule with a fresh-colored stalk (arrow) and few comedo-like openings over the right groin

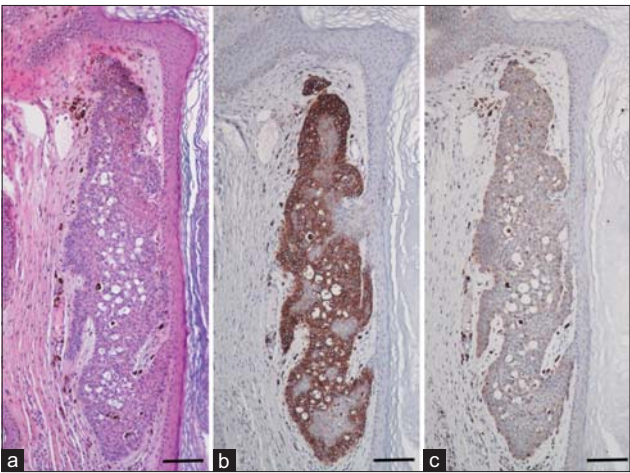


Figure 3: Immunohistochemical analysis shows positive Ber-EP4 (b) and Bcl-2 (c) in the tumor portion of basal cell carcinoma. H and E (a). Scale bar: 100 μm

We did not find any polypoid variant in our previous study of epidemiologic and pathologic characteristics in 103 cases of BCC at Tri-Service Medical Center from 1985 to 2011.⁴

Interestingly, a review of the literature revealed more distinguished features other than the appearance of BCC [Figure 4]. First, in contrast to other common types of BCC such as superficial or nodular, the polypoid BCC showed a slight female predilection (male/female ratio = 0.72).³ Second, the location of polypoid BCC prefers scalp, buttock, and genital regions.^{2,3,5} Half of these peculiar regions are not ultraviolet (UV)-exposed areas, which suggests polypoid BCC to possibly have an etiologic factor other than the most established risk factor of BCC, exposure to UV radiation. Misago and Narisawa hypothesized the reason to be special structures of skin in these areas such as abundant apocrine glands and subcutaneous tissue.⁵ As in our case, the lesion was found on the right groin, also

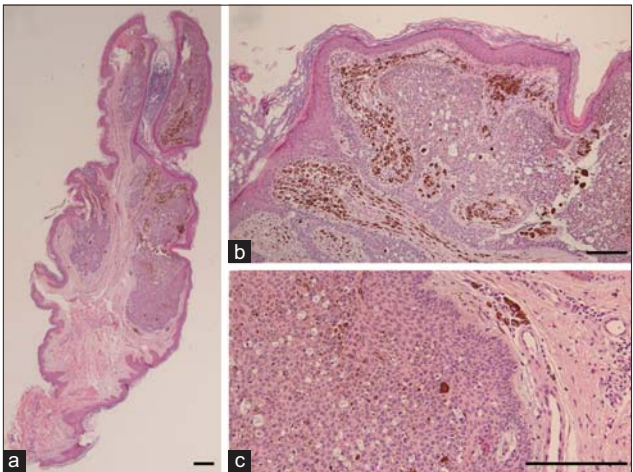


Figure 2: Basal cell carcinoma restricted to the polypoid area (a) revealed a basaloid epithelial tumor arising from the epidermis (b). Higher magnification shows that the basaloid epithelium typically forms a palisade with peripheral dilated vessel (c). Scale bar: 100 μm

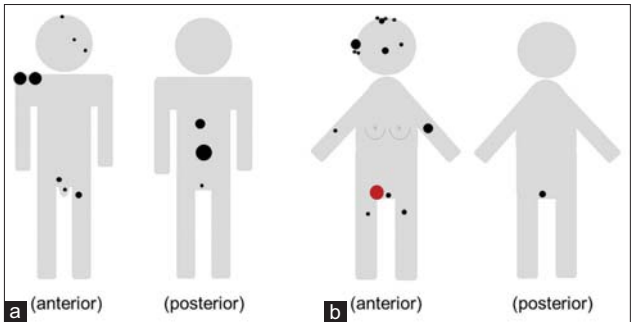


Figure 4: The scheme depicts the gender, distribution, and size differences of polypoid basal cell carcinoma in a review of English literature. Distribution and sizes of polypoid basal cell carcinoma in males (a) and females (b). The ruby red tattoo ink represents our case

a nonsun-exposed region. Frequent incidence of friction on groin might be a factor that contributes to the etiology. Third, polypoid BCC was more depicted in Asian groups such as Japanese³ and Korean.⁶ In contrast to the common victims of BCC, darker-skinned population seem to outstand in polypoid BCC, which again directs to the concept that UV radiation may not be the main cause of this subtype. Instead, ethnic difference or genetic background may play a crucial role. Fourth, the mean diameter of polypoid BCC was 2–3 cm, which is larger comparing to that of common BCC.^{5,6} According to the AJCC Cancer Staging Manual, 8th Edition,⁷ 2 cm is the cut point between T1 and T2. A tumor with size more than 5 cm at its largest diameter is defined as a giant BCC. Size, particularly emphasized in the staging of BCC, hints that it correlates with the aggressiveness of tumor. Small-sized BCCs are believed to be slowly growing and rarely metastatic. Nonetheless, a particular subtype, giant BCC, follows the rule with a local invasion and metastasis rate more than 50%.⁸ Polypoid BCC, however, has a relatively larger size but shows favorable outcome.^{3,5,6} The feature is proved by a well-circumscribed and noninfiltrating pattern under the microscope. Only one case of a giant polypoid BCC with pulmonary metastasis has been published.⁹ The reason of being neglected by patients and doctors may be the unusual distribution in hidden sites such as scalp, genital area, and, as in our case, the groin.⁵

When our case first visited the office, the “polyp” configuration led us to benign-looking differential diagnosis, including pigmented nevus, strangulated fibroepithelial polyps (acrochordons), or seborrheic keratosis, whereas BCC was not the straightforward consideration. Observation was one of the treatment choices. Nonetheless, we still performed polypectomy and kept adequate surgical margin due to uncertainty. The final pathological report revealing BCC was out of our expectation. Consequently, we believe that physicians should be cautious toward poly-like lesions as neoplasm cannot be excluded. Furthermore, we presume that the incidence rate of polypoid BCC has long been underestimated due to overlook or simple treatment such as cryotherapy.

CONCLUSION

The polypoid BCC is striking by its unique stalk-like appearance. In general, it is larger in average size but not considered aggressive. However, ignored by physicians is probable when polypoid BCC masquerades as other benign skin lesions. We present a rare case of polypoid BCC on the right groin and to the best of our knowledge no cases have been reported from Taiwan.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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