A rare gluteal tumor: basaloid squamous cell carcinoma

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Summary

Basaloid squamous cell carcinoma is a rare variant of squamous cell carcinoma with an aggressive behavior that occurs in the upper aerodigestive tract in the majority of cases. There have been reported also other possible localizations as anal region, cervix or thymus. The diagnosis of squamous cell carcinoma with basaloid features is rather difficult and is based exclusively on histopathological and immunohistochemical examination. We report a case of a male patient with a giant perianal tumor misdiagnosed first as Buschke Lowenstein tumor, localized precisely on the right gluteal region, that proved to be a basaloid squamous carcinoma after specific investigations were performed.

KEY WORDS: basaloid; squamous carcinoma; skin cancer.

Introduction

Squamous cell carcinoma with basaloid features was first described by Wain et al. in 1986 as a highly aggressive neoplasm of certain structures of head and neck region (1). The term derives from its specific histopathological presentation that reflects an association between squamous cell carcinoma and carcinoma with basaloid pattern (1). Along with the common localizations like larynx, hypopharynx, tonsils or base of tongue, other sites have been described for the development of basaloid squamous cell carcinoma (2). Although squamous cell carcinoma of the basaloid subtype can arise in the anal canal, data from the literature regarding the perianal localization of the tumor, more exactly in the gluteal region are very scarce (3, 4). The diagnosis lies on histopathological examination of the resected tumors or biopsy specimens and is rather difficult and challenging for pathologists. The histopathological appearance displays a typical pattern and consists of solid nests with basaloid cells in periphery and squamous cells with central disposition (5). Immunohistochemistry plays an important role in establishing the diagnosis, although a patognomonic pattern is not documented (5). Among immunohistochemical markers, a particular significance for basaloid type of squamous cell carcinoma seems to have keratin 34 βE12 (5-7). In addition, p63 shows diffuse positivity in tumoral cells and helps to differentiate basaloid squamous carcinoma from adenoid cystic carcinoma (4, 8). We report a rare case of a skin cancer, a squamous carcinoma with basaloid features characterized also by a rare location, the skin of gluteal region, considered initial as perianal condylomatosis or Buschke Lowenstein tumor.

Case report

A 65-year-old male patient came to our attention for intermittent anal bleeding which lasted for almost one year. He denied an altered bowel pattern or weight loss. His personal medical history was positive for coronary artery disease and mild heart failure, while his family history was unremarkable. He was not a smoker, nor a heavy drinker and denied illicit drug use. The clinical examination showed a normal-weighted patient, stable hemodinamically, without any pathological findings, except the inspection of the perianal area which exhibited a giant pseudocondylomatous lesion, partially ulcerated (Figure 1). The biological work-up was within normal limits, only cell blood count revealed a mild microcytic hypochromic anemia of 10,9 g/dl. Carcinoembryonic antigen (CEA) and CA 19-9 were normal. Viral markers, including HIV determination were negative. A colonoscopy was performed and revealed the presence of congestive hemorrhoids, without other pathological findings on the entire colon, till cecum. Following colonoscopy, abdominal ultrasound and chest X-ray did not show abnormalities. The patient was then referred to plastic surgery for tumor excision. After complete surgical resection, skin-flap plasty was done for esthetic purposes. Grossly appearance of the tumor resembled a giant condyloma acuminata or Buschke Lowenstein tumor.
but the histopathological examination evidenced a contrasting result. Microscopic evaluation documented tumoral cells arranged in islands with two population types: one with scanty cytoplasm, with peripheral palisading, characterizing the basaloid type and another one with squamous differentiation and areas of keratinization, typical for squamous type; in addition, frequent mitoses were observed as well as the presence of a brown pigment of melanin type, localized intracytoplasmatic in tumoral cells and in macrophages (Figures 2, 3). Peritumoral stromal retraction artefact was noticed during the evaluation of haematoxylin and eosin specimens. The excision margins are without tumoral invasion (T3Nx stage) and the microscopy examination confirmed that surgical borders respect the oncological safety (over 0.2cm). The immunoprofile of this tumor showed reactivity for the squamous epithelial marker CK34betaE12, diffuse positivity for P63, CK19 limited in tumoral cells, CEA negative in tumoral cell but positive in epiderm; Ki67 positive in approximately 35% of tumoral cells (Figures 4, 5). The postoperative course was uneventful and the patient was discharged without any further treatment.

Discussion

Basaloid squamous cell carcinoma represents an aggressive variant of squamous cell carcinoma encountered extremely rare in clinical practice, the common
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localization being the upper aerodigestive tract (5, 9). The prognosis of this neoplasm is similar or even worse than that of conventional squamous cancer (9). The diagnosis is mainly microscopically and is based on histopathological examination completed with immunohistochemistry studies (9, 10). Often, it is challenging for pathologists because basaloid squamous carcinoma may resemble other histological types. When undifferentiated features of basaloid cells are predominant, it could be mistaken as small cell carcinoma, in cases with cribriform-like pattern, it may resemble adenoid cystic carcinoma, or in other cases, neuroendocrine carcinoma (10). At the same time, the macroscopic appearance of the tumor could be confounding, as happened in our case when grossly inspection suggested first a perianal exoffitic condyloma known as Buschke Lowenstein syndrome. This is the reason for we did not perform dermoscopy before surgical intervention (11). But further investigations demonstrated in fact it was a skin tumor, a non-melanoma cancer with gluteal origin. Typically this tumor type occurs especially in male patients in the seventh decade of life, showing that our patient respects the general age pattern. Another confounding aspect in this case consists of symptomatology, intermittent rectorrhagia which was not related to the tumor itself, but with an incidental discovery of internal hemorrhoids. The specific immunohistochemical marker for basaloid squamous cell carcinoma is the high molecular-weight cytokeratin 34 βE12, that stained positively in our case. In conclusion, the issue of this case is based on the rarity of the histological type on one hand and, on the other hand, on the clinical inspection that could confound the tumor with perianal condylomatosis.

References