Pleomorphic basal cell carcinoma: report of an uncommon histological variant

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Sir,

Basal cell carcinoma (BCC) is the most common malignant skin tumor. It forms different histologic patterns that often have variable outcomes and prognoses. Pleomorphic BCC is an uncommon pathologic variant of unknown pathogenesis. Herein, we report a case of pleomorphic BCC in a patient with Xeroderma Pigmentosum (XP).

A 42-year-old male with a medical history of XP consulted for a nodular, pigmented tumor of the temporal region measuring 5cm in its greatest dimension. Carcinologic surgical removal of the tumor was performed. At histopathologic examination, it was composed of nodular aggregates of atypical basaloid cells with peripheral palisading and stromal retraction. In addition, distributed throughout the tumor nests, there were numerous giant cells [Fig. 1]. These cells had an ill defined abundant eosinophilic cytoplasm and multiple large, irregular, hyperchromatic nuclei. Numerous abnormal mitotic figures were also observed [Fig. 2]. The overall histologic features were highly suggestive of pleomorphic BCC. The patient was regularly followed in the dermatology department with no recurrence after an eight month follow-up.

Pleomorphic BCC have been variously reported as BCC with pleomorphic giant cells, basal cell epithelioma with monster cells and basal cell epithelioma with giant tumor cells [1-4]. It is an exceedingly rare variant of BCC with less than 60 cases reported in the literature [5]. According to a large study of 52 cases of pleomorphic BCC, it accounts for approximately 1 to 2,5% of all BCC [6]. It usually affects elderly

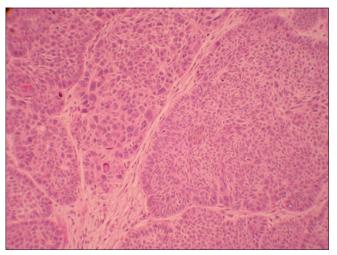


Figure 1: Pleomorphic basal cell carcinoma. Enlarged nuclei and giant cells are present within the lobules of nodular basal cell carcinoma. (HE X 100).

adults with an average age of 65 years old and no sex predominance. Our case is original by the age of onset (42 years old); this may be explained by the fact that our patient has XP.

Clinically, pleomorphic BCC usually exhibits a typical nodular appearance, as in our patient, and has a propensity for the head and neck region [7]. Histologically, tumor is usually well circumscribed and solid but occasionally with adenoid or cystic features. The cardinal sign is the presence of enlarged mononuclear and/or multinucleated tumor cells scattered throughout the lobules. These cells have hyperchromatic and irregularly outlined nuclei with a vesicular appearance. Prominent nucleoli are also occasionally seen. Mitoses are often raised but are not necessarily atypical as in our case [4].

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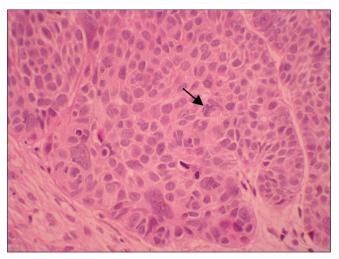


Figure 2: Bizarre cells have multiple, sharply nucleolated nuclei. Note the abnormal mitosis (arrow). (HE X 400).

In all cases tested, an euploidy was identified in these bizarre cells [4,7]. Enhanced expression of proliferation-associated antigens (PCNA, Ki-67) has also been reported in these enlarged cells [1,4] as well as positivity of Bcl-2. This immunoprofile indicates that the giant cells are cycling and do not appear to represent a senescent change [8].

In one report of this variant, similar giant cells were found in the surrounding stroma. They were believed to derive from the same tissue lineage as the pleomorphic cells within tumor nodules [4].

The presence of atypical giant cells doesn't darken in any case the prognosis which is similar to that of the classical form [5]. Management of these tumors usually

consists in a wide local excision with usually a favorable outcome and no recurrences as in our patient.

CONSENT

The examination of the patient was conducted according to the Declaration of Helsinki principles.

REFERENCES

- Cultan RT, Maluf HM. Immunohistochemical characterization of pleopmorphic giant cells in basal cell carcinoma. J Cutan Pathol. 1999;26:353-6.
- Elston DM, Bergfeld WF, Petroff N. Basal cell carcinoma with monster cells. J Cutan Pathol. 1993;20:70-3.
- 3. Ono T, Egawa K, Higo G Fallas VH. Basal cell epithelioma with giant tumor cells. J Dermatol. 1985;12:344-8.
- Alan S. Boyd. Tumors of the Epidermis; In Dermatopathology (Raymond L Barnhill, Arthur Neil Crowson, Cynthia M. Magro, Michael W. Piepkorn, eds), 3rd edn. McGraw-Hill Medical. 2010:556-614.
- Huang CC. Pleomorphic Basal cell carcinoma. South Med J. 2006;99:200.
- Tschen JP, Cohen PR, Schulze KE, Tschen JA, Nelson BR. Pleomorphic basal cell carcinoma: case reports and review. South Med J. 2006;99:296-302.
- Garcia JA, Cohen PR, Herzberg AJ, Wallis ME, Rapini RP. Pleomorphic basal cell carcinoma. J Am Acad Dermatol. 1995;32:740.
- 8. Jakobiec FA, Zakka FR, Townsend DJ. Pleomorphic basal cell carcinoma of the eyelid with true ductular differentiation. Graefes Arch Clin Exp Ophthalmol. 2012;250:451-4.

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