



Original Research Article

The Fibroepithelial Variant of Basal-cell carcinoma - Eye lid A case report

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A B S T R A C T

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Basal cell carcinoma is the most common malignant tumour of the eyelid, it accounts for 80 to 90 per cent of all malignant epithelial eyelid neoplasms. Frequently, basal cell carcinoma involves the lower eyelid and the inner canthus in elderly individuals. Prolonged sunlight exposure is an important predisposing factor. A number of histopathological subtypes of basal cell carcinoma have been defined. We report a case of basal cell carcinoma fibroepithelial type because of its rarity

Introduction

Basal cell carcinoma is the most common cutaneous malignant tumour directly related to sunlight and UV radiation exposure (Rubin *et al.*, 2005). Basal cell carcinoma (BCC) constitutes 65% of epithelial tumours. It is more prevalent after the fourth decade of life and its peak incidence is at the 6th decade with male preponderance (Betti *et al.*, 1997).

Most basal cell carcinomas of the eyelid are of three clinical types: nodular, ulcerative, and sclerosing (morphea form). The nodular type usually presents clinically as a firm pearly nodule, with small telangiectatic vessels on its surface. Quite often, as the nodule slowly increases in size, it undergoes

central ulceration becoming an ulcerative type. The sclerosing or morphea type appears as a pale, well-defined, indurated plaque. Basal cell carcinomas, particularly the nodular type, may become pigmented either due to the presence of melanin (secondary melanosis) or hemorrhage with deposition of hemosiderin. These pigmented lesions may be misinterpreted as malignant melanomas. Basal cell carcinomas can also become cystic, and may be confused with inclusioncysts of the eyelid (McLean *et al.*, 1994).

A number of histopathological subtypes of basal cell carcinoma have been defined. Among these subtypes few rare variants like

pigmented basal cell carcinoma, ecrine differentiation basal cell carcinoma, keratotic basal cell carcinoma fibroepithelial variant. Pathogenesis of these variants is unclear. An extremely well differentiated basal cell carcinoma, known as the fibroepithelioma of Pinkus, is characterized by numerous anastomosing cords of well-differentiated basaloid cells that arise from the epidermis and proliferate as a delicate network within a reactive fibrotic stroma (Murphy and Elder, 1991).

Case report

A 60-Year old female patient presented with a nodule on lower lid of right eye with partially loss of vision and watery discharge since eight months. On physical examination revealed 1.5x1.0 cm nodule on right eye with watery discharge (Fig. 1). There was no previous history of trauma at site, diabetes, exposure to irradiation. The laboratory investigation was within normal limit.

The biopsy have single soft tissue piece with attached skin and hair measuring 1.5x1.0 cm. Skin surface of soft tissue piece show small nodules. The section (Fig. 2, 3) show sub epithelium zone having dermal appendages, a malignant epithelium neoplasm disposed in strands, anastomosing branching pattern interspersed with connective tissue stroma. Individual tumour cells are mildly pleomorphic with round to oval in shape, hyperchromatic nuclei, and inconspicuous nucleoli. The diagnosis was given as fibro epithelial variant of basal cell carcinoma basing on architectural pattern and cytological features

Discussion

BCC is an epithelial malignant tumour with a low malignant potential, consisting of cells

which look like the basal epidermis layer. The diagnostic histological features, common for all types of tumour, are basaloid cells with a thin pale cytoplasm surrounding round or oval nuclei with a rough granulated chromatin pattern. The peripheral borderline cell layers are characteristic by palisade arrangement and the surrounding stroma is often separated by artificially creates slits, whereas the internal arrangement of cells is rather chaotic. Most tumours originate in the epidermis and invade the dermis in the form of solid or cystic nodules or streaky projections creating various growth patterns. Mitosis may be rare or multiple, intercellular bridges may also be present; these are less significant than in squamous cell carcinoma. Most authors use two basic criteria in the creation of classifications of histological types, the histological growth pattern and histological differentiation. Most authors agree that the histological growth pattern is of the greatest biological significance. Classification based on the histological growth pattern is useful during the creation of concept of low risk and high risk types of BCC (Sexton *et al.*, 1990; Szabo *et al.*, 2005; Foley and Mason, 1995).

High risks are mainly infiltrative and superficial types where as low risk group include nodular type mainly. According to WHO (2006) and rosai (2004) Patterson (2006) and Rippy (1998) predominantly six to ten types i.e., nodular, superficial, infiltrative, micronodular, fibroepithelial, basosquamous, keratotic, pigmented, adenoid, sclerosing type.

The present case fibroepithelial variant of basal cell carcinoma (BCC) is relatively frequent disease which is regularly diagnoses at the outpatients practice. The early diagnostics based on the good knowledge and timely organized and

adequate treatment is a precondition for better prognosis. Despite the slow progress and numerous therapeutic methods the BCC should not be underestimated. BCC may destroy the underlying tissues and spread metastases.

Conclusions

Basal cell carcinoma involving lower lid is commonly seen. We present this case because of its histological fibroepithelial variant.

Fig.1 shows lower lid nodular lesion



Fig.2 [H&E 10 x] shows Anastomosing strands of basal cells with loose fibrous stroma

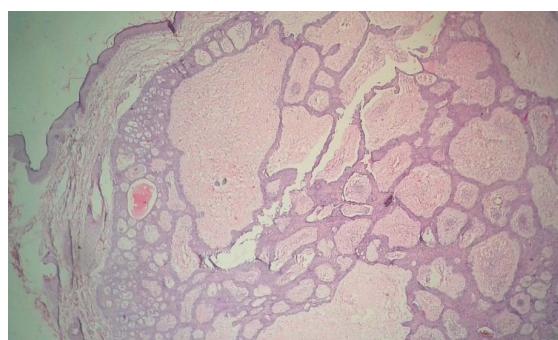
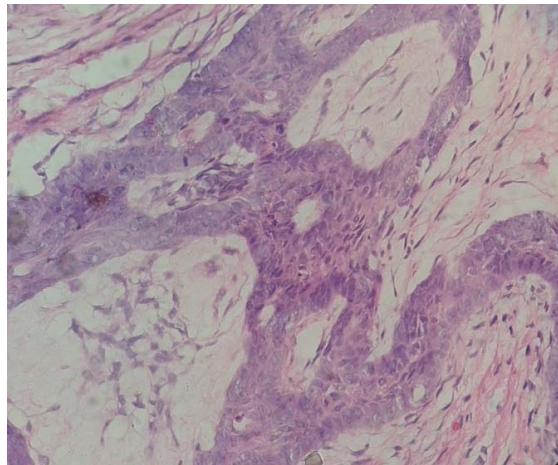


Fig.3 H&E 40X High power shows neoplastic basal cells with fibrotic stroma



References

- Betti, R., Bruscagin, C., Inselvini, E., Crosti, C. 1997. Basal cell carcinomas of covered and unusual site of the body. *Int. J. Dermatol.*, 36(7): 503–505.
- Foley, P., Mason, G. 1995. Keratotic basal cell carcinoma of the upper eyelid. *Aust. J. Dermatol.*, 36(2): 95–96.
- McLean, I.W., Burnier, M.N., Zimmerman, L.E., Jakobiec, F.A. 1994. Tumors of the eye and ocular adnexa. *Atlas of tumor pathology*, 3rd Series, Fascicle 12. Washington, D.C. Armed Forces Institute of Pathology, 1994. Pp. 18–22.
- Murphy, G.F., Elder, D.E. 1991. Non-Melanocytic tumors of the skin. *Atlas of tumor pathology*. Series 3, Fascicle 1. Washington D.C., Armed Forces Institute of Pathology. Pp. 56.
- Rubin, A.I., Chen, E.H., Ratner, D. 2005. Basal cell carcinoma. *N. Eng. J. Med.*, 353(21): 2262–2269.
- Sexton, M., Jones, D.B., Maloney, M.E. 1990. Histologic pattern analysis of basal cell carcinoma, study of a series of 1039 consecutive neoplasms. *Am. Acad. Dermatol.*, 23(6 Pt 1): 1118–1126.
- Szabo, B., Szabo, I., Mera, M., Fripcea, A.M. 2005. Keratotic basal cell carcinoma with orbital extension- a case report. *Oftalmologia*, 49(2): 43–49.