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PILOMATRIXOMA OF RIGHT ELBOW : DIAGNOSES BY FINE NEEDLE ASPIRATION CYTOLOGY

Pathology

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ABSTRACT

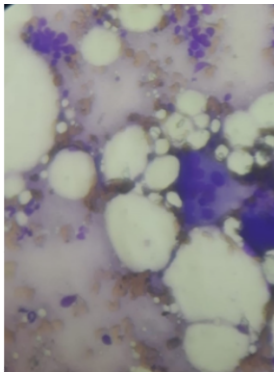
Pilomatrixoma (PMC) is a relatively uncommon benign skin neoplasm arising from the skin adnexa. Since the first description of PMC in 1880, there has been a gradual increase in understanding of the morphologic features and clinical presentation of this tumor. However, difficulties still persist in making clinical and cytologic diagnosis. We report a case of pilomatrixoma of right elbow a rare location diagnosed by fine needle cytology .Excision biopsy confirmed the FNAC diagnosis of Pilomatrixoma.

KEYWORDS

pilomatrixoma, right elbow ,fnac

INTRODUCTION

Pilomatrixoma, also known as calcifying epithelioma of Malherbe, is a skin appendageal tumor seen in head and neck regions. Occurrence of this lesion in the arm is unusual and has been described in few reports in the available English literature [1–4]. Though histologic diagnosis of pilomatrixoma, even in unusual locations, is straightforward, the same is not true for aspiration cytology. There have been quite a few reports of misdiagnosis of pilomatrixoma on aspiration smears, as other benign as well malignant lesions [5, 6]. An accurate diagnosis of this benign lesion on cytology is imperative, considering that excision is curative. We describe the cytologic features of a case of pilomatrixoma in the arm of a young girl.



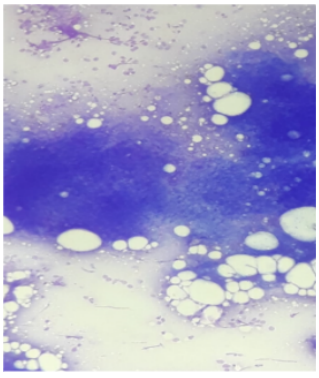


Figure 1: show basaloid cells in cluster and giant cell reaction (shadow) cells(Giemsa 40x)

Figure 2:show sheets of ghosts against keratin (Giemsa 40x)

CASE REPORT

A 10-year- old girl presented with a bluish red nodule located on the right elbow . The lesion had been present for approximately 18 months, It had gradually increased in size during the last one month. The patient complained of occasional burning and pain. Physical examination revealed a firm, movable nodule measuring 3x2 cm in size. This mass had a nodular texture and was tender. The overlying skin showed no change in overlying skin. Family history was unremarkable. The initial clinical diagnosis was of sebaceous cyst. The patient was refered for fine needle aspiration cytology later nodule was excised and sent for histopathological examination.

DISCUSSION

Pilomatrixoma (calcifying epithelioma of Malherbe) is a benign skin appendageal tumor with differentiation towards hair follicle matrix cells. This lesion occurs over a wide age range with two peaks: less than 20 years and over 50 years [5]. Pilomatrixoma is typically found in head and neck region, though it has been reported in upper extremities and other sites. In a large series of 346 pilomatrixomas, about 15.3% were seen in upper extremities [6]. There have been few reports of pilomatrixoma occurring in the arm in the existing literature [7]. Clinically, pilomatrixoma presents as solitary painless and well circumscribed dermal or subcutaneous mass upto 3 cm in diameter [8]. The overlying skin may display telangiectasia, hemangioma-like color, or blue-black discoloration [10]. Our patient, a 10 year girl, had a solitary firm lesion on the lateral aspect of right arm with no changes in the overlying skin.

Fine needle aspiration cytology (FNAC), the most favoured diagnostic modality in superficial masses, usually shows characteristic features of pilomatrixoma. These include basaloid cell clusters(fig-1), shadow (ghost) cells(fig-2), calcification, and few nucleated squamous cells. Giant cells may be seen in response to keratin [9].

CONCLUSIONS

The present case highlights the importance of considering pilomatrixoma in the clinical and pathologic differential diagnosis of dermal or subcutaneous nodule even in locations other than head and neck region. This is true especially for cytopathologists since they play an important role in the initial diagnosis of these lesions. Cytopathologists should keep in mind the variability of the cytologic features, given the cellular composition of the lesion.

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