Case Report

Dermatofibroma on upper extremity in childhood period

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ABSTRACT

Dermatofibroma is a common benign mesenchymal tumor composed of fibroblastic and histiocytic cells. It is also known as cutaneous benign fibrous histiocytoma. Although it may occur in any age, it is mostly common at twenties and thirties. It is more common in women than men and it is most seen at lower extremity. Herein, we report a 6-month-old female infant, who had dermatofibroma on her upper extremity.

KEY WORDS: Mesenchymal tumor, Fibrous histiocytoma, Upper extremity, Infant.

Pak J Med Sci July - September 2011 Vol. 27 No. 4 937-939

How to cite this article:

Ceylan MF, Karadag AS, Bulut G, Calka O, Onder H. Dermatofibroma on upper extremity in childhood period. Pak J Med Sci 2011;27(4):937-939

INTRODUCTION

Dermatofibroma is the most common visible of mesenchymal residues of the skin. It is also called as a cutaneous benign fibrous histiocytoma. Although it may occur in any age, it is mostly common at twenties and thirties. It is more common in women than in men and it is mostly seen at lower extremity.[1-3] It is clinically necessary to consider granular cell tumor, clear cell acanthoma, melanoma and dermatofibrosarcoma protuberans in the differential diagnosis and sometimes these lesions can only be distinguished by biopsy.[3,4] We present our 6-month-old female infant, who had dermatofibroma on her upper extremity.

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* Received for Publication: February 27, 2011

* Revision Received: June 17, 2011

* Revision Accepted: June 20, 2011

CASE REPORT

A six-month-old female infant presented to our clinic because of a nodule on the volar surface of the left forearm. The lesion started as a papule, when she was three months old gradually grew to the present size. There was no history of preceding trauma, arthropod bite or similar lesion in her family. On examination of the patient, there was a pink to red-coloured, hard nodule which measured 2x2 cm (Figure.1). The dimple sign was positive.

An excisional biopsy was performed under local and sedation anesthesia in order to confirm the diagnosis (Figure.2). Microscopic examination showed a cutaneous mass, measuring 1.5x2x2 cm. On cut section, the mass was solid and grey areas. No necrosis or cysts were seen. In the histopathological examination, revealed an ill-defined dermal proliferation of elongated fibrohistiocytic cells and sometimes of storiform pattern. It was observed from the vessel that there was the rich tumor formation which is oval or spindle-core and sometimes makes fascicles. Inflammatory infiltration was sometimes noticed. At

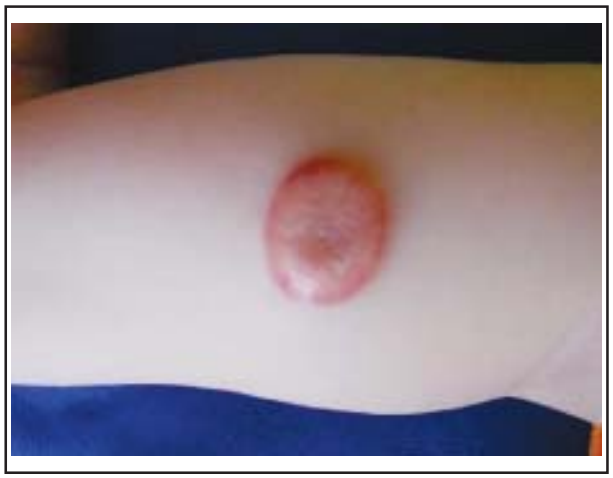

Fig-1: Appearance of the lesion in the left volar forearm.

the borders of the lesion, collagenous nodules were seen entrapped between tumor cells. There was a grenz zone between the tumor and the overlying epidermis, which was focally hyperplasia. Mitotic activity was counted as three in the field of tenner (decimal) magnification (Figure.3). Immunohistochemistry showed, diffuse strong staining with CD68, focal weak staining with actin in tumor cells, however, there was no staining with S100, desmin and CD34.

The patient's biochemical tests were normal. The lesion was diagnosed as dermatofibroma on clinical and pathological grounds.

DISCUSSION

Dermatofibroma is the most common of mesenchymal residues of the skin and it has first been described by Stout and Lattes in 1967.[5] It is also called cutaneous benign fibrous histiocytoma.[1] Fibrous histiocytoma is a benign tumor which grows from fibroblastic and histiocytic cells. It commonly occurs in the dermis, but can sporadically be seen in subdermal soft tissue and in parenchymal organs. It is usually seen in sun-exposed areas of the skin.[2,6] It can occur in all ages, but it is especially more commonly seen in the age groups of 20 and 30 years. 20% of cases are seen under the age of 17. It occurs more in women than in men, and it mostly involves lower-extremities.[1,3]

Previously, dermatofibroma cases have been described in the period of infancy, in the nasal cavity, at the base of skull, and on the upper lip.[5,7,8] Our case was a 6-month-old female baby, and her lesion was detected on the upper extremity in contrast to the sites commonly seen.

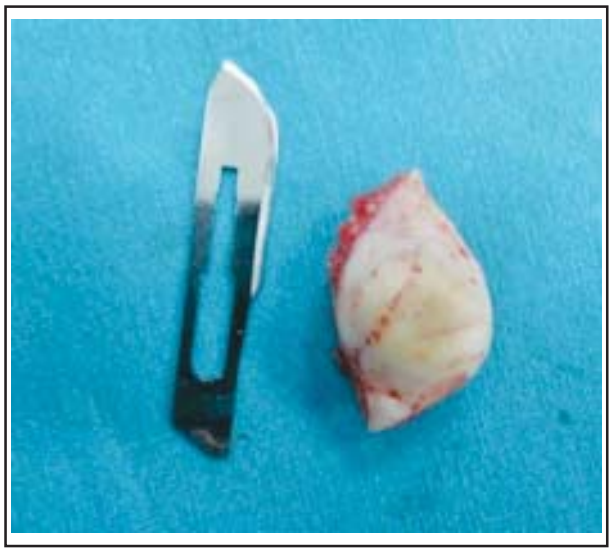

Fig-2: Excisional biopsy material, 2x2 cm-sized mass.

Dermatofibroma can be seen as solitary or multiple. Generalized lesions have also been described. Although generally asymptomatic, they may sometimes be itchy and can ulcerate after trauma.[1,6] Although its etiology is not clearly known, it can occur after trauma or arthropod bites. The etiology of our case was uncertain.

The surface of dermatofibroma may be shiny or keratotic, but it is usually brown. Characteristically, it becomes hard, indurated, and mobile. The size ranges from 0.5 to 1 cm, however, dermatofibroma above 5cm is very rare.[4] Collapse seen in the lesion which is compressed and created between the thumb

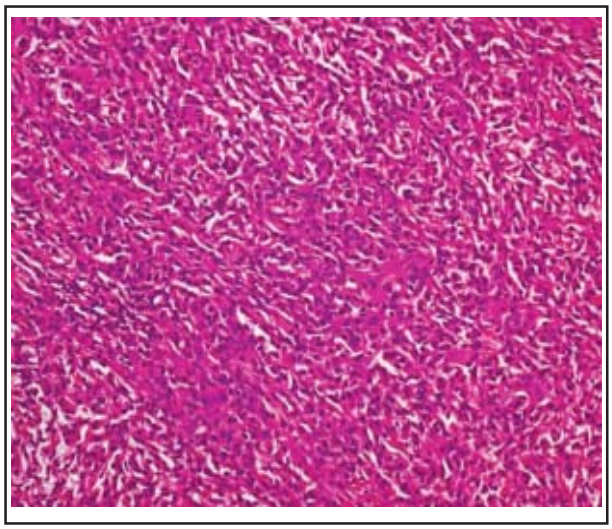

Fig-3: Making short and long fascicles, cellular fibrous histiocytoma that the spindle-shaped cells made (HE&200).

and index finger is called dimple sign.[1] Dimple sign was positive in our case, which was an important finding in the diagnosis.

Dermatofibroma can sometimes grow very fast, but most of them remain constant for years, and it can sometimes regress with hypopigmentation. It is not necessary to treat as long as it is asymptomatic. The lesion in our case had reached to the size of 2x2 cm from the stage of a papule by growing very rapidly. Generally the tumour does not metastasize and only two cases of cellular dermatofibroma have been described in the literature which metastasized to lymph nodes and lung.[3]

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Authors Contribution::

MFC, ASK, GB, OC & HO conceived designed and did manuscript writing & editing of manuscript. MFC did review and final approval.