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Case Report

CRANIAL FACIITIS: A RARE VARIANT IN CHILDHOOD

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Abstract

Cranial fasciitis is a rare variant of nodular fasciitis, which is seen exclusively in infants and childhood, mainly in the head and neck region. It is considered as non-neoplastic lesion similar to nodular fasciitis. A 5 months old male child presented with a rapidly growing swelling in the forehead, since three months. No other complaints. CT scan revealed erosion of the outer table of cranium and radiologically diagnosed as Dermoid cyst. The swelling was excised. Histologically it showed more cellular areas, forming storiform pattern with myxoid areas and bony metaplastic change. Few osteoclastic giant cells seen and was diagnosed as cranial fasciitis of childhood. The cranial fasciitis should be considered as one of the differential diagnosis or differentiated from fibromatosis that tend to recur locally, unlike nonrecurring behavior of these lesions in childhood.

Keywords: Cranial fasciitis, nodular fasciitis, rare variant, childhood, benign.

INTRODUCTION

Cranial fasciitis is a rare benign tumor of the skull that occurs exclusively in children of < 6 years. It is an uncommon variant of nodular fasciitis, manifesting as a rapidly enlarging mass in the subcutaneous tissue of scalp which erodes the cranium. This benign fibroblastic proliferation of scalp was first described as a subset / variant of nodular fasciitis in the year 1980 by Lauer and Enzinger[2]. It usually erodes the outer table of the cranium but not infrequently also penetrates the inner table[8]. Due to rarity of occurrence of this variant, the case has been presented with available literature.

Case Report

A 5 months old male child presented with a rapidly growing swelling in the forehead, since three months. There was no other complaint. CT scan showed (Figure 3), erosion of the outer table of the skull and a diagnosis of dermoid cyst was made. The mass was 4* 3* 2 cm in size, soft to firm in consistency. Cut section showed greyish brown and whitish areas. Histology showed proliferation of fibroblasts, arranged in fascicles and storiform pattern with a variable myxoid stroma (Figure 1) Areas of osseous change and few osteoclastic giant cells were seen (Figure 2). A diagnosis of Cranial fasciitis was made.

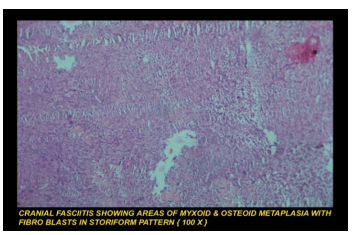

Figure 1: Cranial Fascitis Showing Areas of Myxoid and Osteoid Metaplasia with Fibroblasts in Storiform Pattern (100x)

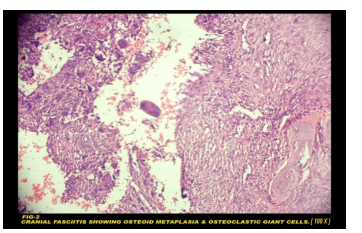

Figure 2: Low Power View Showing Osteoid Metaplasia and Osteoclastic Giant Cells (10x)

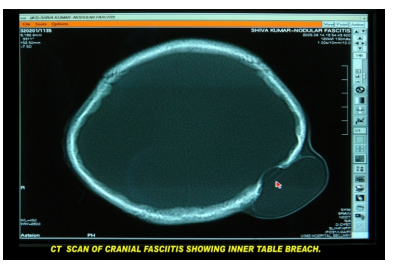

Figure 3: Coputerised Tomographic Scan of Cranial Fasciitis Showing Breach of Inner Table

DISCUSSION

Lauer and Enzinger[2] were the first to report Cranial fasciitis as a soft tissue lesion in children with aggressive local growth into the cranium. It is an extremely rare tumor, with fewer than 40 cases reported in the literature[3]. These tumors occur as a rapidly enlarging mass, most commonly in the soft tissues of the temporal region, followed by the parietal, occipital and frontal regions[5]. Cranial fasciitis is an uncommon variant of nodular fasciitis. It affects the galea aponeurotica in infants under the age of one year[7]. Males are affected twice as frequently as females. No definite predisposing factor have been identified, however, many reports cited prior trauma to the affected area, has possible role in later development of cranial fasciitis[1,6]. Although cranial fasciitis has been quantitatively compared with nodular fasciitis, its more aggressive local growth and homogenous histologic features appears to differentiate cranial fasciitis from nodular fasciitis[5].

CONCLUSION

Although cranial fasciitis is quite rare, it should be considered in the differential diagnosis of lytic skull lesions apart from other lesions like - juvenile fibromatosis, juvenile fibro sarcoma, primary bone neoplasms, eosinophilic granuloma. It should be differentiated from fibromatosis that tends to recur locally, unlike nonrecurring behavior of these childhood lesions.

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