SPITZ NEVUS

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A case of Spitz nevus is presented in view of the difficulties of differentiating it from malignant melanoma. Spitz nevus with predominantly epithelioid cells is uncommon.

Key words : Spitz nevus, Malignant melanoma, Nodular melanoma Juvenile melanoma

Introduction

The spitzs nevus (SN) also called benign juvenile melanoma or spindle epithelioid cell nevus is a benign tumour found predominantly in children and adolescents. The condition is clinically significant in view of the difficulties in differentiating it from malignant melanoma (MM). Its incidence is less than 1% of all nevi in children.[1] Majority of SN are spindle cell type but epithelioid cell type is uncommon. A case of SN with predominantly epithelioid cell is reported.

Case Report

A 2- year -old girl presented with a nodule on the left side of the chest for 6 months. Examination revealed a well -defined, sessile, non- tender, non- fluctuant nodule of 1cm size. Axillary lymph nodes were not enlarged. Clinical suggestion of granuloma pyogenicum was given. The nodule was excised and submitted for histopathological examination.

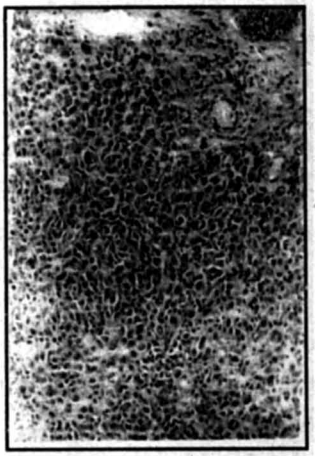

Fig1. Photomicrograph shows subepidermal oedema and telangiectasia. The nevus cells are arranged in loose sheet and show minimal maturation. Large epithelioid cells are admixed with few spindle- shaped nevus cell. H & E x 100

Gross examination showed a polypoidal grey white mass. Cut section was grey white and solid.

Histopathologic examination showed a tumor situated in the dermis. The tumor cells were arranged in small nests and loose sheets with partial loss of cohesion (Fig,1).The cells were predominantly epithelioid type having variable size and shape with abundant eosinophilic cytoplasm. Tumour cells were mainly mononucleate having pleomorphic, hyper-

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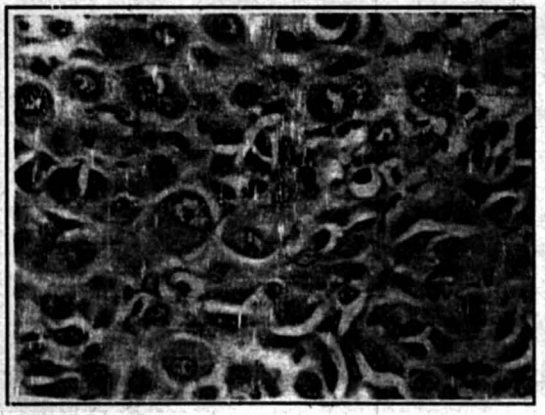

Fig.2. Large epithelioid nevus cells with abundant cytoplasm and vesicular large nuclei with smooth nuclear membrane and prominent nucleoli. A few spindle shaped nevus cells are also admixed. H & E x 400

chromatic large, nuclei with fairly prominent nucleoli. Occasional multinucleate cells with 2-6 nuclei arranged in wreath-like manner were also present. There was no significant mitotic activity. These epithelioid cells were admixed with scanty spindle cell component (Fig.2). Mild lymphomononuclear cell infiltrate was present between the tumour cell nests. Some cells contained little coarse brown- black pigment while heavy pigment was present at the dermo - epidermal junction exhibiting junctional activity. Masson's Fontana stain showed only mild positivity in nevus cells. Immunostaining with HMB-45 antigen revealed significant positivity in the nevus cells at the junctional region, whereas focal and only mild positivity was present in the dermal epithelioid nevus cells. Diagnosis of SN (predominantly epithelioid cell type) was made.

Discussion

SN resembles nodular melanoma closely. Clinically the nevus is usually asymptomatic, solitary, dome- shaped, smooth - surfaced, pink or tan, sometimes brown or even black lesion. The common clinical diagnosis is ordinary melanocytic nevus (30% of cases). According to a series of 200 cases, the correct histological diagnosis of the SN was given in 15%.[2] Other common diagnoses suggested are granuloma pyogenicum and dermatofibroma. Our case was clinically diagnosed as granuloma pyogenicum. Majority of Spitz nevi are situated on the head and legs (56.5%); the number on the trunk and arms is smaller (38%).[2]

The features differentiating it from MM are divided into architectural and cytological features.[3] In terms of their architectural pattern SN is usually symmetrical,[4] less than 1 cm in diameter as compared with nodular melanoma which is more than 1 cm in diameter and is asymmetrical.[5] Epidermal hyperplasia is prominent in SN as present in our case. Usually there is little or no pagetoid spread of lesional cells into epidermis in SN. The epidermal component does not extend beyond the lateral border. There is blunt pushing margin. Single attenuated cells or files of single cells are dispersed between reticular dermal collagen bundles which is highly characteristic of SN. MM, on the other hand, tends to form solid tongues or fascicles of tumour cells that displace the collagen bundles.[4]

The size of the nevus cell is very characteristic of SN. Bizarre giant cells may be present, which have regular nuclei of similar size in SN and pleomorphic nuclei in MM. Lack of atypical mitosis and no mitosis and no mitotic activity favours the diagnosis of SN. Melanin is generally completely or nearly absent in SN (70%).[2] In our case , some cells had little

pigment while heavy pigment was present at the dermoepidermal junction . Scanty perivascular inflammatory infiltrate is present in SN while MM has significant band-like inflammatory cell infiltrate.

SN reacts with differentiation markers for melanocytes such as S-100 antigen and with HMB-45, a melanosomal antigen.[4] Staining for HMB-45 shows positivity as in this case in junctional area while it is very feeble in dermal nevus cell, while in MM all the epithelioid cells show positivity. The nuclear size provides a fairly good distinction between SN and MM, especially when measured at the base of the lesion. SN has been classified into 9 types depending on the pattern and cell type. Most commonly found is compound SN with predominantly spindle cells (37.5%). The present case comes under the compound type with predominantly epithelioid cells which is present in only 10% of SN.[2]

Because of the difficulty of making an absolutely certain differentiation between SN and MM, it is advisable as a precautionary measure that all lesions diagnosed as SN be excised in persons at or beyond puberty, particularly because such lesions are usually small. Although the issue is debatable, exceptions to this general rule might include those lesions where there are cosmetic or other contraindications to excision and where the diagnosis of SN is certain despite the partial nature of the biopsy.[6]

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