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Case Report

Compound spitz nevi – A case report

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ABSTRACT

Spitz nevi is a very rare and an acquired lesion 1st described by Sophie Spitz in 1948. Spitz nevus is a melanocytic lesion composed of epithelioid and spindled cells, with a remarkable histological resemblance to malignant melanoma, first interpreted as juvenile melanoma, these lesions were later characterized as benign and were observed to affect all age groups. Its incidence is less than 1% of all nevi. Clinically it appears as a solitary, dome shaped, firm, red or brown papule or nodule located most commonly over the face or leg.

We report a case of 15 year old female patient who visited us with an asymptomatic lesion on her right knee of 1month duration. On examination it was found to be a single well-defined round to oval dome shaped skin colored to reddish papule, probable diagnosis of adnexal tumor was made, and excisional biopsy was planned, on histopathological examination it was confirmed to be a case of compound spitz nevi.

We report a case of a 15-year-old female patient who visited us with an asymptomatic lesion on her right knee of 1-month duration. On examination it was found to be a single well-defined round to oval dome-shaped skin coloured to a reddish papule (Figure 1a,b), a probable diagnosis of the adnexal tumour was made, and excisional biopsy was planned, on histopathological examination (Figure 2a,b, Figure 3), it was confirmed to be a case of compound spitz nevi.

Spitz nevi is a very rare and an acquired lesion 1st described by Sophie Spitz in 1948.[1] Spitz nevus is a benign melanocytic lesion composed of epithelioid and spindled cells, with a remarkable histological resemblance to malignant melanoma. Its incidence is less than 1% of all nevi.[2] Spitz nevi is more common in children and adolescents but can affect all age groups. Spitz nevi may arise de novo or have an association with a pre-existing melanocytic nevus,[3] exact aetiology of Spitz nevi is unknown, in general, it is more common in fair-skinned person and 70% of the cases are diagnosed in 1st two decades. SN usually presents as an asymptomatic lesion rarely bleeding and pruritus can be associated, on clinical examination it most commonly present as a solitary, dome-shaped, smooth-surfaced, pink or tan, sometimes brown or even black papule or nodule, Spitz nevi usually are found on the face, neck, or lower extremities but can occur anywhere on the body, rarely it can be multiple also, Multiple SN can be either Grouped (agminated) or disseminated SN.Usually, 90% of SN is less than 1 cm in size. Spitz Nevi has a varied presentation from benign to malignant with the classic benign Spitz nevus at one end of the spectrum and the aggressive malignant melanoma at the opposite end, giving rise to 3 main classifications: Spitz tumour, atypical

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Spitz tumour, and malignant melanoma. Spitz tumour with 1 or more atypical features is defined as atypical spitz tumour and it has a diverse range of presentation with features of both in between. The differential diagnosis of the Spitz nevus can be pyogenic granuloma, mastocytoma, juvenile xanthogranuloma, and malignant melanoma.

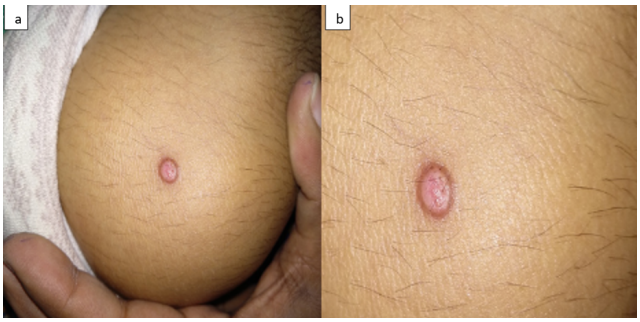

Fig. 1: a: Ib- single well-defined round to oval dome-shaped skin coloured to a reddish papule; **a:** Small nests and loose sheets with partial loss of cohesion called as bunches of bananas or raining down pattern. (Scanner View – 4x)

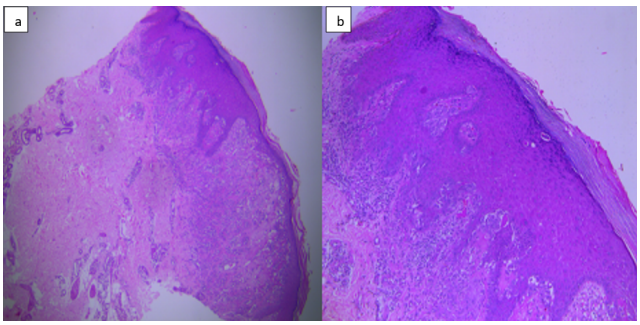

Fig. 2: a-b: Small nests and loose sheets with partial loss of cohesion called as bunches of bananas or raining down pattern (High Power – 10x)

The 5 major prognostic factors for atypical spitz nevi are age greater than 10 years, diameter greater than 10.0 mm, lesions with fat involvement, presence of ulceration, and dermal component mitotic activity greater than 5 mitoses/mm2. Higher the grade, Higher is the risk for malignancy and metastasis. On histopathologic examination tumour cells are seen to be arranged in small nests and loose sheets with partial loss of cohesion called as bunches of bananas or raining down pattern.[3] Tumour cells composed of the predominantly epithelioid type of cell having pleomorphic, hyperchromatic large nuclei with fairly prominent nucleoli were present.[4] These epithelioid cells were mixed with scanty spindle cell component, Epidermal changes include acanthosis, hypergranulosis, and hyperkeratosis. Mild lymphomononuclear cell infiltrate was present between the tumour cell nests. Eosinophilic Kamino bodies frequently are found along with the dermo-epidermal

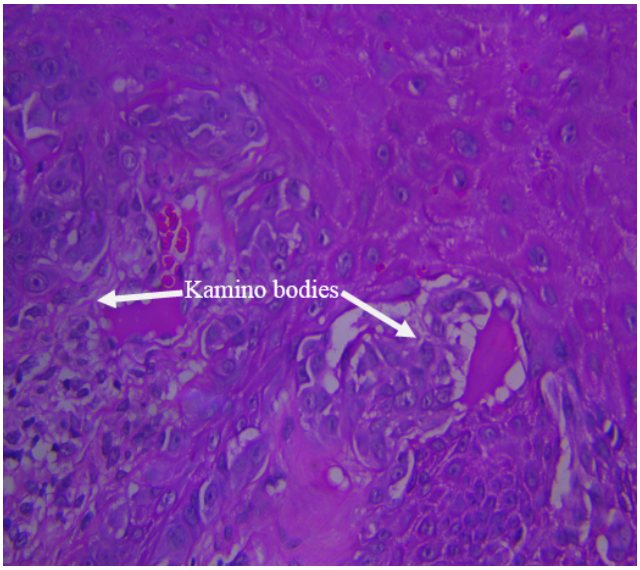

Fig. 3: Kamino bodies(High Power – 40x)

interface. Kamino bodies are globular clusters that represent apoptotic degenerative melanocytes.[3] There are no clear histomorphological criteria that differentiate atypical Spitz nevi from malignant melanoma., thus the term, 'Spitzoid melanoma,' has been used. Features used to differentiate SN from MM are- SN is usually symmetrical, less than 1 cm in diameter as compared with nodular melanoma which is more than 1 cm in diameter and is asymmetrical. Single attenuated cells or files of single cells are dispersed between reticular dermal collagen bundles which are highly characteristic of SN. 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 mitotic activity favours the diagnosis of SN. Melanin is generally completely or nearly absent in SN (70%). Scanty perivascular inflammatory infiltrate is present in SN while MM has significant band-like inflammatory cell infiltrate. The nuclear size provides a fairly good distinction between SN and MM, especially when measured at the base of the lesion.[4] Immunohistochemistry markers for differentiating spitz nevi from melanoma are- Ki-67, HMB-45, S-100A6., MIB-1, BCL-2. Analysis of mutation of BRAF, NRAS and HRAS is also used to differentiate it from melanomas but BRAF mutation is not always able to differentiate all spitz nevi from spitzoid melanoma and other melanocytic proliferations.[2] On dermatoscopy following patterns were identified: globular, reticular (inverse white and superficial black network), starburst, homogeneous and atypical.[5] Treatment is complete excision with clinical follow-up.

Conflict of Interest

None.

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