DERMATOPATHOLOGY

A 'MESENCHYMAL' PROLIFERATIVE NODULE IN A CONGENITAL MELANOCYTIC NEVUS

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Background: Large Congenital Melanocytic Nevi (CMN) are prone to secondary proliferations and the formation of a new nodule in a CMN raises the possibility of a Proliferative Nodule(PN). We report an interesting case of a PN arising in a garment type CMN , in which the proliferation was non neurocristic from an immunohistochemical perspective.

Observation: A new nodular growth was noted in the bathing trunk congenital nevus of a 3 month old boy. All biopsies obtained from the lesion were linked histopathologically by the presence of a CMN. There was no evidence of melanoma in any section . There were vague nodular dermal zones of melanocytic hypercellularity which qualified as PN .One PN was distinctive for the presence of mesenchymal microscopic morphology, prominent CD-34 expression and a lack of expression of neurocristic determinants, such as Sox-10.For further characterization , next generation genetic sequencing was performed which confirmed NRAS p.Q61R mutation , as is common to CMN .

Key message: A PN is a secondary melanocytic tumor that occurs in large CMN, typically in the first 5 years of life. Patients with large CMN have a 5-15 times greater risk of developing malignant melanoma (MM) which can be recognized clinically as an area of pigmentary alteration , ulceration , or a nodule. PN are seen in about 3-20% of CMN and even though the nevus cells are actively dividing, their proliferative index is usually low. PN usually stop growing with time , become smaller in size and show a tendency to regress.
We intend to report this case since it represents an analogue of a Proliferative Nodule , what might be called a 'Mesenchymal' proliferative nodule . This means that it fulfills the criteria for a proliferative nodule by clinical context but does not express melanocytic determinants by immunohistochemistry.