Review of: "Melanocytic Nevi In Sentinel Lymph Nodes - Association With Cutaneous Nevi And Clinical Relevance In Patients With Cutaneous Melanomas"

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The present study is based on a probably unique dataset documenting melanocytic nevi in lymph nodes in 1,085 patients with sentinel lymph node biopsy from 1998 to 2017. Nodal nevi (NN) were found in 15.7% of this collective. They are found in the fibrous capsule of lymph nodes and morphologically and immunohistochemically resemble dermal melanocytic nevi. They must be differentially diagnosed from micrometastases in the nevi. They are significantly more common in patients with many cutaneous melanocytic nevi. The frequency is 10.8% in patients with < 50 melanocytic nevi and 23.5% in patients with > 50 melanocytic nevi. A total of 15 clinical features were evaluated for association with the occurrence of melanocytic nevi in lymph nodes. NNs were significantly more common in cervical and axillary lymph nodes than in inguinal lymph nodes. The discussion addresses in detail how melanocytic nevi arise in lymph node capsules. It has been speculated in the literature that NN cells migrate from the neural crest into the lymph nodes during embryogenesis through melanocytic progenitor cells. However, this is very unlikely because this is also not the pathway of origin of cutaneous melanocytic nevi. Congenital melanocytic nevus is found in only one in two hundred newborns. Melanocytic nevi develop predominantly in childhood and adolescence and in German studies amounted to 2 melanocytic nevi at the age of 2 years, 20 melanocytic nevi at the age of 7 years, and 35 melanocytic nevi at the age of 20 years. This number then remains largely stable for two to three decades and decreases again with age. The most important factor in the development of cutaneous melanocytic nevi is sun exposure. UV radiation causes mutations in the pigment cell system, triggering driver mutations for melanocytic growth. The most common mutation is the BRAF V600 mutation, which can be detected in up to 80% of cutaneous melanocytic nevi. In this respect, it would be very interesting to know whether this mutation can also be found in NN. Since NN are not found in thoracic or abdominal lymph nodes, it is very likely that the nevus cells migrate via the lymphatic channels. The association of NN with the number of cutaneous melanocytic nevi in the present study provides an important cornerstone to support this hypothesis.