Hair Follicle Nevus: An Entity of its Own?

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The case report of Komura and Tani [1] on a hair follicle nevus provides the opportunity to raise the question whether this hamar-toma is really an entity of its own. There are some indications that the hair follicle nevus could be a well-differentiated trichofolliculoma cut at its periphery. The name hair follicle nevus ('Haarfolli-keinaevus') was used first in 1928 by Gans [2] in his textbook for a lesion initially reported by Fessler in 1924. Fessler [3] had described and depicted a small congenital nodule excised from a 12-year-old girl. On histological examination it showed crowded hair follicles almost all of which were cut transversely. Described to be at its center, but depicted at its periphery, was a sinus towards which, in serial sections, all follicles were directed. In short, Fessler [3] described the characteristics of what is today termed a trichofolliculoma. Gans [2], in his discussion of Fessler's case, abbreviated the original description to a proliferation of hair follicles and did not mention the central sinus into which all follicles were merging. In his illustration of the lesion, Gans [2] also omitted the sinus, thereby presenting Fessler's case as a crowding of tiny hair follicles within the dermis. Nevertheless, Gans' 'hair follicle nevus' is, in general, considered to be a trichofolliculoma [4]. Pinkus, in the first edition of his textbook [5] in 1969, gave the appellation 'hair follicle nevus' to a neoplasm, of which he depicted one example and which he defined as a crowding of numerous tiny mature follicles and distinguished from trichofolliculoma, the latter being characterized by keratinized sinuses. Whether this was on the grounds of Gans' abbreviated description and illustration cannot be judged from his brief comments on the subject; references were not given.

Original reports on hair follicle nevi with characteristics as defined by Pinkus have been presented only by Pippione et al. in 1984 [6], Kirihaara et al. in 1990 [7] and now by Komura and Tani [1]. The only two other examples in the literature that Pippione et al. [6] presumed to be hair follicle nevi are doubtlessly trichofolliculomas [8, 9]. Trichofolliculoma, a name given by Miescher [10] in 1944 to a neoplasm identical to Fessler's case, and hair follicle nevus were used as synonyms at a time [8, 9, 11]. Up to the 6th edition of their textbook Lever and Schaumburg-Lever [12] did not mention hair follicle nevus at all and did so in the 7th edition [13] only when referring to Pippione.

The very same picture as seen in a hair follicle nevus might be seen in the periphery of a well-differentiated trichofolliculoma that has been cut 'end on' [14]. Both neoplasms are made up of the same constituents, except that trichofolliculomas are characterized by a central dilated infundibulum, the so-called primary follicle; it may, however, be absent in a particular histological section.

In short, the historical perspective, the exceedingly few reports of hair follicle nevi and the common histopathological characteristics of hair follicle nevus and trichofolliculoma cut at its periphery could indicate that the hair follicle nevus is in fact a well-differentiated

trichofolliculoma sectioned off center. To establish definitively hair follicle nevus as an entity, serial sections that start within the normal tissue at the edge of a supposed hair follicle nevus and go right through the whole specimen should demonstrate the absence of an epidermal canal or of a solid epidermal proliferation [15] from which follicles emanate. When the block of a specimen whose sections showed follicles cut transversely is reoriented by 90° and new sections are made, these should no longer reveal the same histological picture of transversely cut follicles, which would suggest that all follicles run toward a central sinus as in trichofolliculoma. In the case of a hair follicle nevus, such sections should demonstrate a crowding of follicles cut longitudinally. Serial sections should clarify where the numerous follicles, which grow seemingly uninhibited and parallel to the surface within the dermis, go to. This question has never been raised so far.

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