

Fascicular pseudomelanoma. Clinical and dermoscopic findings.

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Summary

Pseudomelanoma, namely the reappearance of melanic pigmentation after removal of a nevus, is very frequent after removal of congenital melanocytic nevi, even in case of apparently radical removal. Here is reported the case of a child with giant congenital melanocytic nevus. After its removal the child presented a characteristic linear pseudomelanoma, perpendicular to the longitudinal axis of the scar, with dermoscopic parallel bundles, vaguely reminiscent of acral pigmented nevi.

Key words

Pseudomelanoma, recurrent nevus, pseudoparallel pattern.

Pseudomelanoma, (recurrent nevus, persistent nevus) is characterized by reappearance of melanic pigmentation where a melanocytic nevus, usually of dermal type, had been removed. Its removal can be accidental, traumatic or carried out with different techniques. Pseudomelanoma is particularly frequent on scar of removal of congenital melanocytic nevus irrespective of the technique of removal, which can be a surgical removal or more easily a curettage or a planing.

A characteristic finding of pseudomelanoma following surgical removal is characterized by parallel, close to each other bundles, which are arranged perpendicular to the longitudinal axis of the scar. Here is reported a manifest case in a 6-year-old boy.

Case report

T.G. presented since birth a congenital giant melanocytic nevus on the chest, from a nipple to the other, 10 x 12 centimeters, with irregular borders and variously pigmented with a large hyperpigmented area (Fig. 1). In the subsequent six years the nevus was monitored clinically. Its

pigmentation got much more uniform with depigmentation of the hyperpigmented area and pigmentation of the lighter areas (Fig. 2).

When aged 6, the boy underwent segmental removal of the nevus under local anesthesia. The surgical operation was performed in three times within a year. An early side effect of the surgical operations was asymmetry of the nipples, which resulted much closer to each other (Fig. 3), so that a surgical lateral transposition was scheduled. Nine months after the third operation multiple pseudomelanomas occurred (Fig. 4). Most of them were punctiform being located on the borders of the scar, whereas one was linear, horizontal, crossing all the scar, perpendicular to its longitudinal axis, about 2 centimeters long and 3-4 millimeters large, and slightly curved with its convexity upward.

The boy was visited the last time when aged 16. Pseudomelanomas persisted without significant changes.

On dermoscopic examination, the punctiform pseudomelanomas showed a reticular pattern with follicular hypopigmentation (Fig 6), whereas the linear pseudomelanoma showed a characteristic structure with thin, parallel bundles, vaguely reminiscent of acral pigmented nevi.



Fig. 1



Fig. 2



Fig. 3

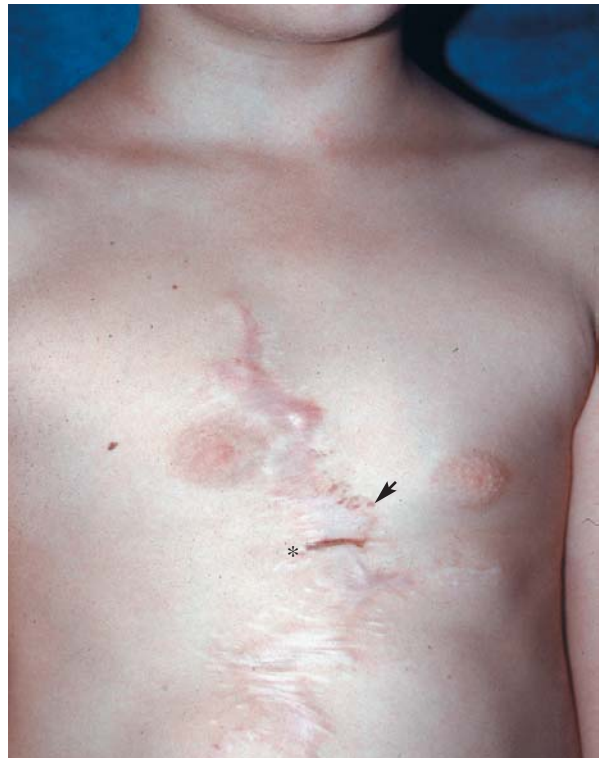


Fig. 4

Fig. 1, 2, 3, 4: Giant melanocytic nevus at birth (Fig. 1) with hyper- and hypopigmented areas. At the age of 6 (Fig. 2) the pigmentation got much more uniform. The nevus underwent segmental removal. 1 month after the third operation asymmetry of the nipples (Fig. 3). 6 months later (Fig. 4) linear (star) and multiple punctiform (arrow) pseudomelanoma.

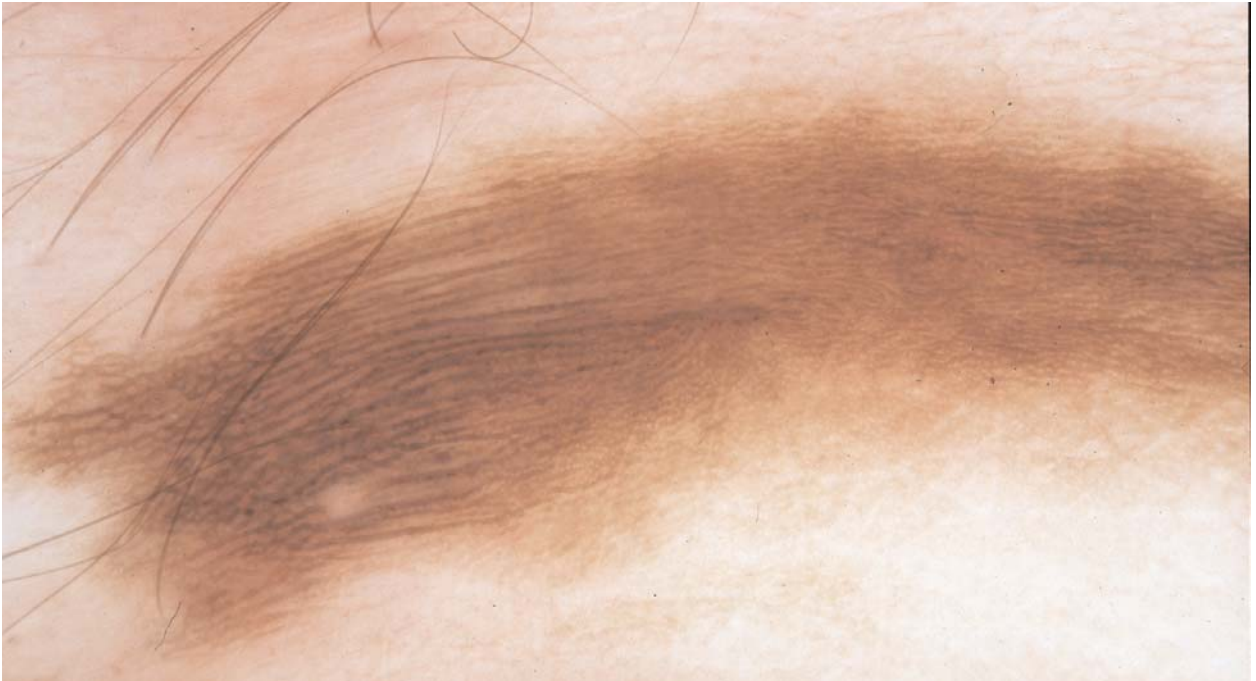


Fig. 5: Linear pseudomelanoma crossing the scar (star in Fig. 4). On dermoscopy, it is characterized by thin, parallel bundles, vaguely reminiscent of acral pigmented nevi.



Fig. 6: Punctiform pseudomelanoma on the border of the scar (arrow in Fig. 4) showing a reticular pattern around a hair follicle.

Discussion

Pseudomelanoma is a generic term underlining a vague similarity with melanoma and also some difficulty in ruling out sometimes this malignant tumor. The repigmentation of the scar may be reminiscent of a local relapse of a malignant melanocytic tumor. However, there are other disturbing clinical features, such as the appearance of multiple pigmented lesions of satellitosis type. The latter can preexist to the removal, being located at the periphery of the congenital nevus or they can appear after its removal, especially when it is partial (curettage, planing) (2), but also when the surgical operation is apparently complete (Fig. 4).

Satellitosis or anyway the appearance of multiple pigmented spots is also reminiscent of acquired eruptive nevi, arising in numerous circumstances, especially after blistering eruptions (1); the latter may occur also in subjects immunocompromised due to AIDS, pregnancy, corticosteroid treatment and chemotherapy, but also without any evident cause (5).

From a pathogenetic point of view, pseudomelanoma is probably due to climbing upward of melanocytes of the hair follicles, that colonize again the epidermis. Numerous arguments favor this hypothesis, such as the punctiform appearance, the latency period of some weeks or months, and finally the repigmentation of vitiligo and halo nevus (4). Even the dermoscopic findings of this report, showing the presence of perifollicular hyperpigmentation and of a reticular pattern, which is concentric to the hair follicle, favor this hypothesis.

Characteristic is the fascicular appearance of pseudomelanoma inside the scar, although already mentioned by some Author (3). This finding is reminiscent of parallel dermoscopic pattern in acral sites, although non regular and devoid of the intraepidermal eccrine ducts. Moreover, the pigmentary parallel lines are thinner and more closely packed.

Interestingly enough, the linear parallel appearance is probably due in this case to the presence of packed collagen bundles and parallel to each other in the superficial dermis, whereas in the acral pattern the marked furrows of the palmar and plantar region are responsible for the parallel arrangement of melanocytes. Once again the dermoscopic findings help to understand the anatomy and physiology of the skin, although sometimes useless from a diagnostic point of view.

In conclusion the case here reported showed the significant pigmentary changes of melanocytic nevi with time. The latter are more evident in congenital nevi due their greater size. Moreover, it showed that the anatomic structures of the dermis are able to influence the distribution of melanocytes.

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