

Acquired Agminated Melanocytic Naevi: Report of Two Cases and Review of the Literature

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Agminated melanocytic naevi is a rare disorder characterized by grouped melanocytic lesions on a localized area of the body (1). Although agminated melanocytic naevi can be categorized into congenital and late-onset acquired types, acquired agminated melanocytic naevi is extremely rare (2–6). We report here two cases of acquired agminated melanocytic naevi and review the cases reported previously.

CASE REPORT

Case 1

A 23-year-old Japanese woman was referred to our clinic with a pigmented lesion on the right side of her forehead. The pigmented spots had appeared at 4 years of age after a trauma. She had no family or past history of malignant melanoma. On physical examination, approximately 100 pigmented small macules were found in an 8×3.5 cm area on the right side of her forehead (Fig. 1A). There was a traumatic scar in the periphery of the lesion. On dermoscopic examination, typical pseudo-network was seen. No background pigmentation within the agminated lesion was noted (Fig. 1B). Histopathological examination showed naevus cell nests in both the basal layer of the epidermis and the dermis. Melanophages were also seen in the dermis. There was no apparent atypia in the naevus cells (Fig. 1C). Based on these findings, a diagnosis of acquired agminated melanocytic naevi (compound type) was made.

Case 2

A 38-year-old Japanese woman was referred to our clinic with a pigmented lesion on her left forearm. The

pigmented spots had appeared in her childhood. There was no history of trauma in the lesion. She had no family or past history of malignant melanoma. On physical examination, approximately 100 pigmented small macules were found in a 5×4 cm area on her left forearm (Fig. 2A). On dermoscopic examination, globular pattern was seen. No background pigmentation within the agminated lesion was noted (Fig. 2B). Histopathological examination showed elongation of the rete ridge and naevus cell nests in the epidermal basal layer. Many melanophages were also observed in the dermis. There was no apparent atypia in the naevus cells (Fig. 2C). Based on these findings, a diagnosis of acquired agminated melanocytic naevi (junctional type) was made.

DISCUSSION

Melanocytic tumours, such as melanocytic naevus (2–6), blue naevus (7) and Spitz naevus, (8) can occasionally appear as agminated lesions. In the present cases, the agminated macules dermoscopically lacked background pigmentation, unlike speckled lentiginous naevus. A diagnosis of agminated melanocytic naevi was made on the basis of clinical and histopathological examination. Although agminated melanocytic naevi can be categorized into congenital and acquired types, the distribution of congenital type is often segmental, following a dermatome or a Blaschko's line rather than "agminated". It has been assumed that the distribution is caused by a clonal outgrowth of cells originating from a somatic mutation at an early stage of embryogenesis (9). On the other hand, the pathogenesis of acquired type has not been elucidated. As far as we know, only 7 cases of acquired agminated melanocytic naevi (including the

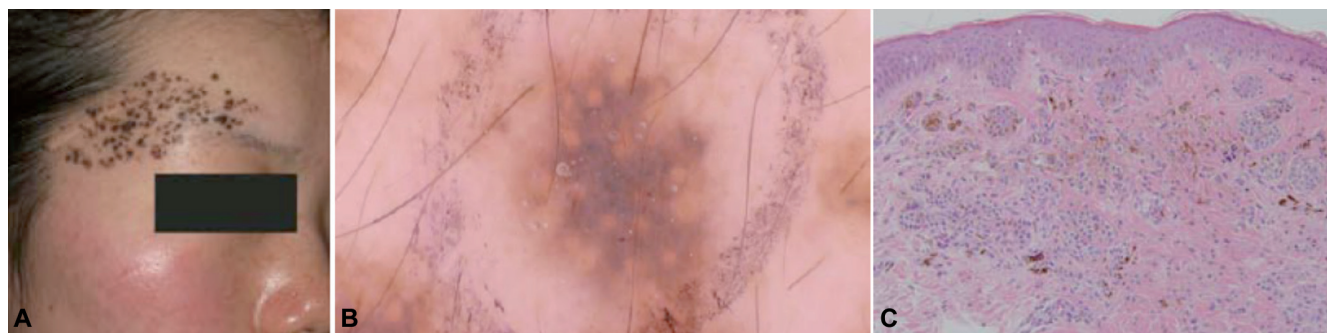


Fig. 1. (A) Agminated pigmented macules on the right side of the forehead. (B) Dermoscopic examination revealed typical pseudo-network. No background pigmentation was noted within the agminated lesion. (C) Naevus cell nests were seen both in the basal layer of the epidermis and in the dermis. There was no apparent atypia in the naevus cells (haematoxylin and eosin $\times 100$).

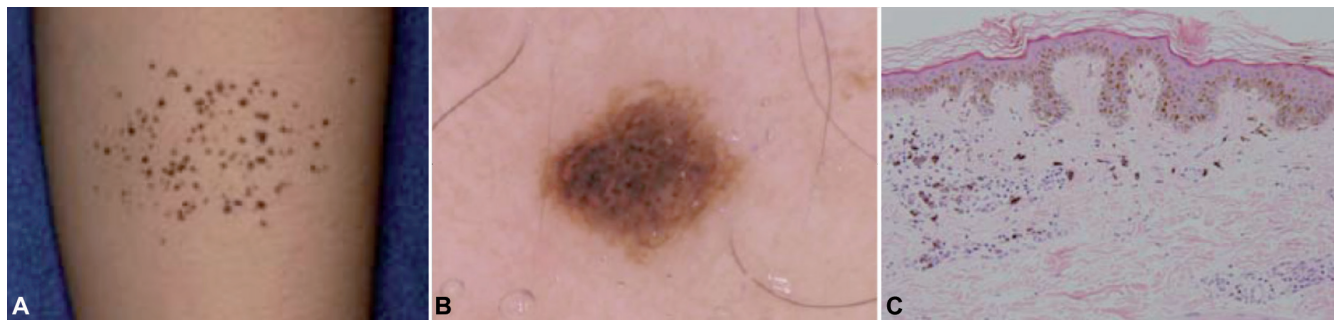


Fig. 2. (A) Agminated pigmented macules were seen on the forearm. (B) On dermoscopic examination, globular pattern was seen. No background pigmentation was seen within the agminated lesion. (C) Naevus cell nests were seen in the basal layer of epidermis. There was no apparent atypia in the naevus cells (haematoxylin and eosin $\times 100$).

ones described here) have been reported in the English literature (2–6). Previously reported cases are summarized in Table I. We excluded cases of acquired agminated melanocytic naevi in association with dysplastic naevus syndrome because additional factors might be related to the pathogenesis. The mean age of the patients was 36.6 years. Onset age was less than 20 years in 6 cases. The site and number of naevi varied between cases, and 5 of the patients were female. Although 2 patients had a past history of a trauma within the lesion, the injury might be coincidental. We speculate that hormonal (growth) factors could be related to the pathogenesis of the disease. Histopathologically, there were various types (junctional, intradermal and compound type) of melanocytic naevi. However, it is notable that malignant melanoma developed from agminated lesions in 2 cases. Therefore, careful follow-up is recommended in patients with acquired agminated melanocytic naevi.

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Table I. Cases of acquired agminated melanocytic naevi

Case no. (age, years/sex)	Onset age (years)	Site	Naevi <i>n</i>	Histopathology	Trauma	Author (ref)
1 (32/M)	After birth	Lower aspect of back	6	Not determined	Unknown	Bragg, et al. (2)
2 (36/F)	2	Right arm	Unknown ($>100?$)	Melanoma	Yes (Burn)	Corradin, et al. (3)
3 (22/F)	17	Right sole	8	Junctional naevi	No	Tanioka, et al. (4)
4 (74/F)	74	Right breast	15	Compound naevi	No	Nakamura, et al. (5)
5 (32/M)	Teenage years	Left chest	50	Melanoma	No	Rezze, et al. (6)
				Junctional naevi		
				Intradermal naevi		
				Compound naevi		
6 (22/F)	4	Right forehead	100	Compound naevi	Yes	This report
7 (38/F)	Childhood	Left arm	100	Junctional naevi	No	This report