Chapter 4
A 2-Month-Old Boy with a Pigment Lesion on the Scalp

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A two-month-old boy was consulted by a dermatologist to assess a dark-brown lesion on the scalp which was presented at birth. No dermatological on non-dermatological diseases were reported. There was no family history of similar skin lesion.

A physical examination revealed dark brown plaque on the right side of occipital area (Fig. 4.1). On dermoscopy, dark brown and brown structureless areas were observed (Fig. 4.2).

Based on the case description and the photographs, what is your diagnosis?

Differential Diagnoses

1. Mongolian spot.
2. Congential melanocytic nevus.
3. Nevus spilus.
4. Café-au-lait spots.

Diagnosis

Congenital melanocytic nevi.

Discussion

Congenital melanocytic nevi are melanocytic nevi that have their onset at birth or during the first two years of life [1]. They result from in-utero somatic mutations concerning genes that play a role in the mitogen-activated protein kinase (MAPK)

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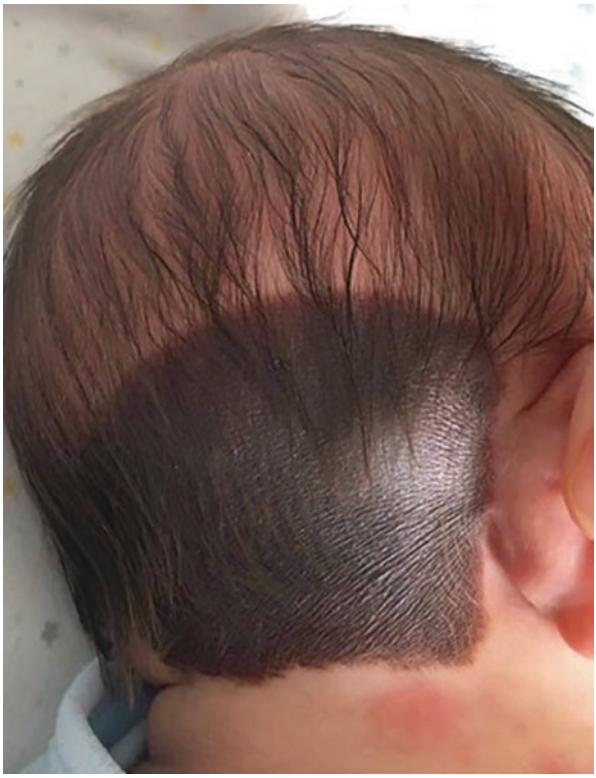

Fig. 4.1 A 2-month-old boy with a dark brown plaque on the right side of occipital area

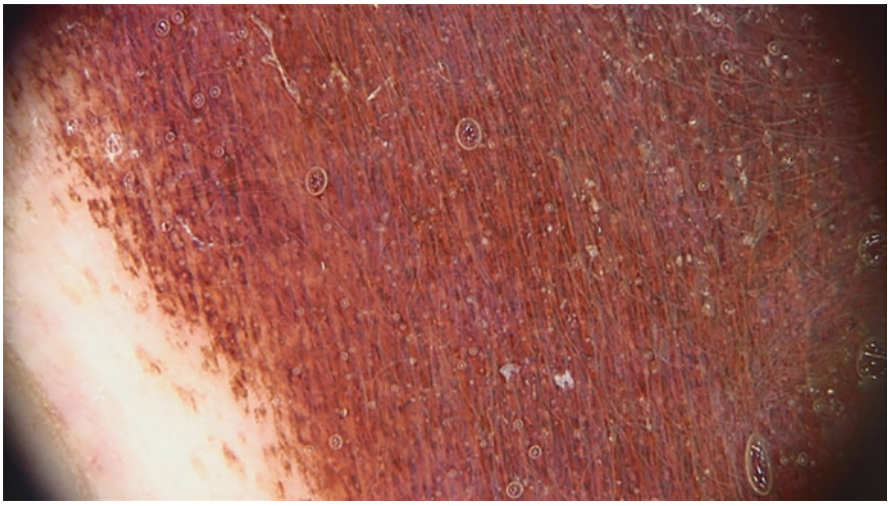

Fig. 4.2 Dermoscopy shows brown and dark brown structureless areas (×20)

pathway [2]. Congenital melanocytic nevi are relatively common with an incidence among newborns ranging between 0.2% and 6% [2]. There is a female predominance. Congenital melanocytic nevi initially present as pigmented macules or slightly raised oval papules or plaques. They usually darken over time and become raised or verrucous. Congenital melanocytic can display a wide variety of colors ranging from light brown to black. Hypertrichosis is commonly observed. Congenital melanocytic nevi usually grows proportionally with the child [1, 3]. Although often asymptomatic, larger lesions may have clinical features of xerosis, ulceration, pruritis, or skin erosions. Furthermore, the unsightly aesthetic appearance may cause significant psychosocial impacts on children and parents [1]. Congenital melanocytic nevi are classified according to their estimated adult size as small (<1.5 cm), medium (1.5–20 cm), large or giant (>20 cm) [3]. Giant nevi occasionally show satellite smaller lesions. Congenital melanocytic nevi may be associated with melanocyte proliferation in the central nervous system. In this case, neurological symptoms, including seizures, cranial nerve dysfunction, or signs and symptoms of increased intracranial pressure may be observed [3]. Moreover, large lesions have a higher risk of melanoma development. Congenital melanocytic nevi are usually diagnosed based on the clinical appearance. Dermoscopy or punch biopsy for histopathological examination may be used in cases of diagnostic doubt. Dermoscopy is characterized by the globular, structureless, reticular, or mixed patterns. A histopathological examination shows nevomelanocytes or nevus cells in the epidermis in well-ordered clusters as well as in the dermis as cords, sheets, or nests [3]. Treatment options may be divided into surgical and non-surgical. Non-surgical therapeutic options include dermal abrasion, chemical peels, cryotherapy, electrosurgery, and ablative lasers. These methods reduce pigmentation and improve the cosmetic appearance without fully removing nevi cell [3].

Differential diagnoses for the presented patient included Mongolian spot, nevus spilus and café-au-lait spots.

Mongolian spots are congenital birthmarks most commonly presented over the lumbosacral area. They are bluish-green to black in color and oval to irregular in shape. They most commonly affect individuals of African or Asian descent [4].

Nevus spilus presents as a well-circumscribed tan macule or patch with many smaller dark brown macules or papules scattered throughout the hyperpigmented background. Most commonly the lesions are acquired during infancy or childhood. The trunk and extremities are most commonly affected [5].

Café-au-lait spots present as uniform tan-brown round or oval macules with distinct margins and variable border. These lesions tend to enlarge in proportion to general body growth during the first several years of life and then stabilize. Regress in later years may be observed [6].

In the presented patient, based on the clinical and dermoscopic findings the diagnosis of congenital melanocytic nevi was established.

Key Points

- Congenital melanocytic nevi are melanocytic nevi that have their onset at birth or during the first two years of life.
- They present as pigmented macules or slightly raised oval papules or plaques. They usually darken over time and also become raised or verrucous.

References

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