

Divided Naevus of the Penis

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The simultaneous occurrence of naevi on opposite sides of the upper and lower eyelids has been termed divided naevus of the eyelid. However, there are few reports of divided naevi on other sites, especially on the glans and prepuce.

We report here a case of divided naevus of the penis and speculate on the mechanism of its development.

CASE REPORT

An 11-year-old Japanese boy presented with a 3-year history of black and dark brown macules on the dorsal side of the glans penis and the adjacent area underneath the foreskin. He was healthy and had no history of trauma or circumcision. The size and colour of the penile lesion had not changed since he first noticed it. On examination, a macule, 8 mm in size and black to dark brown in colour, was seen on the glans penis, and a macule, 11 mm in diameter, was seen underneath the foreskin (Fig. 1a). The coronal sulcus was exempt from melanocytic pigmentation. Although the clinical diagnosis of the black macules was divided naevus of the penis, there was colour variegation and border irregularity of the macules; thus surgical excision was performed with a 3-mm safety margin.

Histological examination revealed that the epidermis appeared normal, and junctional activity was absent. The upper dermis contained nests and cords of naevus cells, and type A naevus cells in the nests contained moderate amounts of melanin granules. Mitoses and atypia were absent from the naevus cells.

A simple resection of the lesion underneath the foreskin was performed, and the lesion of the glans was reconstructed by skin grafting using remnant foreskin.

Six months after the operation, the patient showed no deformity of the glans and no loss of sensation (Fig. 1b).

DISCUSSION

Desruelles et al. (1) reported on the mechanisms of development of divided naevus of the penis in 1998. Like the mechanisms of divided naevi of the eyelids, these genital lesions originate from a single lesion in the embryo that divides after the development of the

external genitalia (2). It is not known whether migration of the melanoblasts and melanocyte precede or follow embryological separation of the glans from the prepuce between the 10th and 14th gestational week (1, 3).

Based on the fact that all cases of divided naevus of the penis have shown almost the same size and shape, with a mirror image, we support the hypothesis that melanocyte migration occurs after circular ingrowth of ectoderm and invagination of the preputial epithelial placode.

To our knowledge 6 cases of divided naevus of the penis have been reported (1–4). In all cases the naevi were located on the dorsal side of the glans and the inner face of the prepuce. Although curettage or laser ablation may be recommended in cases of divided naevus of the penis, local recurrence due to incomplete excision is common after these procedures, and therefore local excision with a narrow margin of 2–3 mm of normal skin is usually required. However, in cases where the naevi is large, as in the case described here, surgery may cause deformity of the glans penis. In such cases, remnant foreskin is available for skin grafting, the colour match and colour texture of which are ideal for reconstruction of the skin and corpus spongiosum of the glans.

REFERENCES

- Desruelles F, Lacour JP, Mantoux F, Ortonne JP. Divided nevus of the penis: an unusual location. *Arch Dermatol* 1998; 134: 879–880.
- Choi GS, Won DH, Lee SJ, Lee JH, Kim YG. Divided nevus on the penis. *Br J Dermatol* 2000; 143: 1126–1127.
- Kono T, Nozaki M, Kikuchi Y, Ercocen AR, Hayashi N, Chan HH et al. Divided nevus of the penis: a hypothesis on the embryological mechanisms of its development. *Acta Derm Venereol* 2003; 83: 155–156.
- Phan PT, Francis N, Madden N, Bunker CB. Kissing nevus of the penis. *Clin Exp Dermatol* 2004; 29: 471–472.

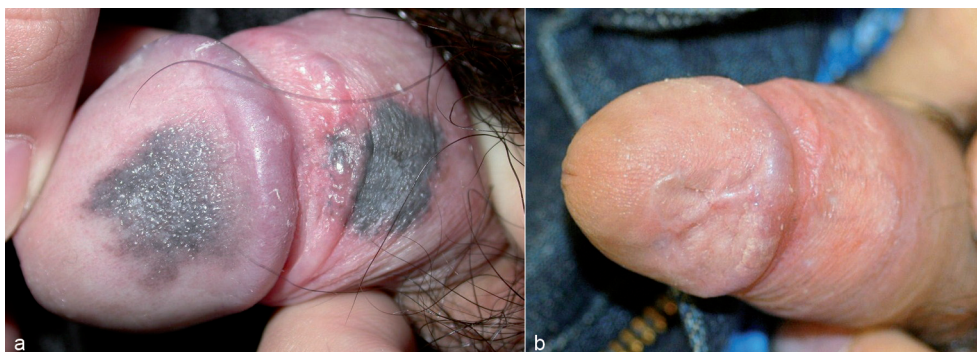


Fig. 1. Divided naevus of the penis. (a) Black, dark-brown macules located on the dorsal side of the glans and prepuce. (b) Clinical appearance after treatment (6 months after operation).