Pigmentary Demarcation Lines Type B in a White Non-pregnant Woman

Sir

A 53-year-old white woman of phototype IV was seen for areas of hyperpigmentation of 10 years' duration on her thighs. She denied any inflammatory episode or topical medication before their development. She had been on contraceptive pills for many years and under estrogens after ovariohysterectomy for 10 years before the development of pigmentation.

On examination, she exhibited two symmetrical discoloured and neatly demarcated areas from the perineum down to the inner popliteal regions, the lateral part being darker (Fig. 1). Blood tests were normal, including T3, T4 and TSH, though there were low levels of anti-reticulin antibodies (1/40). Because of their location and onset in adulthood, our patient's disorder was diagnosed as pigmentary demarcation lines (PDL) type B.

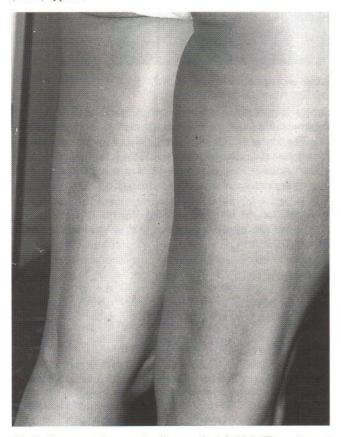


Fig. 1. Pigmentary demarcation lines on the left thigh. The outer part is darker.

PDL neatly divide pigmented from hypopigmented areas of skin following the Voigt's boundary lines which govern the distribution of peripheral nerves. PDL are more frequent in black people than in Japanese (25% vs 14%) (1) and rare in Caucasians (2). In black people there is no sexual prevalence and the type B has been observed also in men (Table I). In Caucasians, on the other hand, PDL are more common in women (14% vs 6%) and the type B is only feminine. Only one white patient, who was pregnant, has been so far described with type B PDL (2). Type B PDL are influenced by hormones. In 14% of Blacks they present during pregnancy (2) (they did so in its last trimester in the only white patient (5)), disappearing soon after delivery. In our patient the long estrogenic medication may explain their unusual persistence.

Table I. Types of pigmentary demarcation lines

Type	Location

- A Lateral aspect of upper anterior portion of arms, across pectoral area
- B Posteromedial portion of lower limb
- C Vertical hypopigmented line in pre- and parasternal area
- D Posteromedial area of spine
- E Bilateral aspect of chest, marking from mid third of clavicle to periareolar skin

REFERENCES

- Futcher PH. A peculiarity of pigmentation of the upper arm of Negroes. Science 1938; 88: 570-571 (quoted by 5).
- James WD, Carter JM, Rodman OG. Pigmentary demarcation lines: a population survey. J Am Acad Dermatol 1987; 16: 584–590.
- Miura O. On the demarcation lines of pigmentation observed among the Japanese, on inner sides of their extremities and on anterior and posterior sides of their medial regions. Tohoku J Exp Med 1951; 54: 135–140 (quoted by 5).
- Selmanowitz VJ, Krivo JM. Pigmentary demarcation lines. Br J Dermatol 1975; 93: 371–377.
- James WD, Meltzer MS, Guill MA, Berger TG, Rodman OG. Pigmentary demarcation lines associated with pregnancy. J Am Acad Dermatol 1984; 11: 438–440.

Accepted May 24, 1996.

S. Delmonte, A. Parodi and A. Rebora Department of Dermatology, University of Genoa, Viale Benedetto XV, n7, I-16132 Genoa, Italy.