Pigmentary demarcation lines in pregnancy

Sir,

Pigmentary demarcation lines (PDL), also known as Futcher's lines or Voigt's lines, are physiological abrupt transition lines from areas of deeper pigmentation to the area with less pigmentation. These have most often been described in the skin of Africans and Japanese.[1] Five types (A-E) have been described. Malakar and Dhar (2000) were the first to report pigmentary demarcation lines over face in Indian population and labeled them as type F PDL.[2] Subsequently, a few more patterns of pigmentary demarcation lines on the face, types F, G and H have also been described in Indian subjects.[3] We report a pregnant woman, who presented with type B pigmentary demarcation lines and generalized cutaneous hyperemia.

A 30-year-old second gravida who was 8 month spregnant presented at the skin outpatient department with asymptomatic, broad, band-like pigmentation over the posterior aspect of both legs and thighs [Figure 1], extending from the heel to the gluteal crease, that was present since 4 months. The medial borders of the pigmented areas were sharply demarcated while the lateral borders merged imperceptibly into the normal skin. She also had generalized cutaneous hyperemia that blanched completely on diascopy. She did not report similar pigmentation or hyperemia in her previous pregnancy. The patient underwent tightening of the os uteri during the first trimester for a patulous os and had a threatened abortion. She had also received progesterone injections for 3 months. These lines disappeared completely one month after parturition.

PDL are abrupt transition lines from areas of deeper pigmentation to areas with less pigmentation. They are rare examples of streaks of melanocytes, otherwise inapparent. They neither correspond to the lines of Blaschko that mark the distribution of linear nevoid conditions, nor to the dermatomal lines. These are most often observed in darker races and are considered to be normal variants of pigmentation.[4]

Five naturally occurring PDLs, labeled A-E, have been described:[1],[4], [5]

1. Type A (Futcher's / Voigt's lines), the most common lines, seen over the dorso-ventral aspect of the arms.
2. Type B, which appear during pregnancy on the lower limbs and regress after delivery.
3. Type C, which are mid sternal, extending from the clavicle to the inferior border of the sternum.
4. Type D, rare, postero-median lines along the spine.
5. Type E, periareolar hypopigmented macules.

In a recent Indian study, three distinct patterns of pigmentary demarcation lines have been described on the face and have been designated as F, G and H types of PDL.[3] The PDL were seen with a much higher frequency in women (9%) than in men (0.75%). Hormonal influence was suggested as a possible explanation for the higher occurrence in females. Type B pigmentary demarcation lines have been reported over the legs during pregnancy, and regress after delivery.[4] PDL seen in our patient typically correspond to type B lines.

The exact cause of pigmentary demarcation lines is still an enigma. They have been considered as an atavistic remnant, where the dorsal skin is pigmented more than

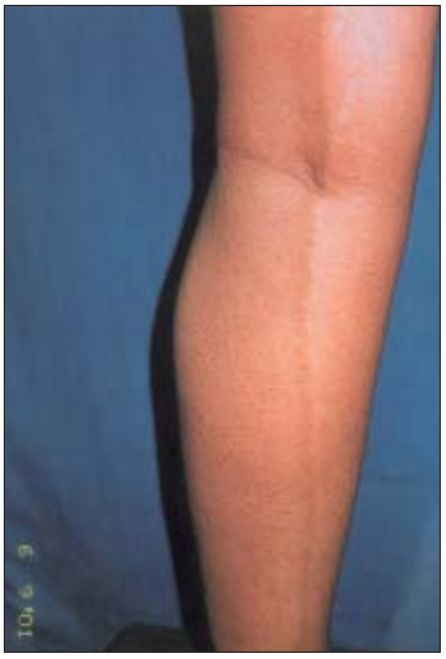

Figure 1: Typical type B pigmentary demarcation line over thigh and leg

the ventral, providing better protection from the sun.[5] Genetic and hormonal influences have also been suggested.[5] The PDL and generalized cutaneous hyperemia in our patient could possibly be due to the progesterone therapy received during early pregnancy. We could not come across a description of type B pigmentary demarcation line in the Indian literature.

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Tumoral calcinosis

Sir,

Calcinosis cutis is a group of disorders characterized by deposition of calcium salts in the skin. There are four forms of calcinosis cutis: metastatic, dystrophic, idiopathic, and intraepidermal calcified nodule.[1] Tumoral calcinosis (TC) is regarded as a special form of idiopathic calcinosis cutis. It is characterized by large periarticular deposits of calcium resembling neoplasms and is found commonly around hip, shoulder, and elbow joints. TC usually presents with multiple lesions and affects adolescents and young adults. Men are affected more commonly than women. About two-thirds of the affected individuals are non-whites and siblings are affected in half of the cases [2] Very few cases have been reported in the Indian literature.[3],[4],[5] We report a middle-aged woman with a solitary lesion of TC for the rarity of this condition.

A 50-year-old housewife presented with a painless, bony hard mass in the gluteal region around the right hip joint. It started as a small mobile nodule and gradually increased in size to become a large mass of about 8 cm within a period of one and half years. The central part of the overlying skin of the lesion eroded, with discharge of a chalky white material. There was no history of a similar condition among the relatives and the patient could not recall episodes of trauma or injection over the affected area, excessive milk or antacid intake, or any local or systemic illness prior to the development of the lesion. Physical examination revealed a firm, non-tender, irregular nodule, about 8 cm in diameter, over the lateral aspect of the right gluteal region. The central protruded part of the lesion was whitish in color. The mobility of the right hip joint was unaffected. The systemic examination was normal.

The patient's serum calcium, phosphate, uric acid, alkaline phosphatase, creatinine and blood urea nitrogen levels were within normal limits. Complete hemogram showed no abnormality. Antinuclear antibody and rheumatoid factor were negative. Skiagram of the right hip joint showed irregularly round to oval, radio-dense, juxta-articular calcification. The adjacent joint and the contiguous bones were unaffected. Fine needle aspiration cytology showed amorphous granular material with occasional histiocytes. The excised mass was whitish in color with an incomplete fibrous covering. Milky fluid came out during sectioning. The cut surface showed collections of gritty chalky white material. Histopathological preparation showed deeply basophilic amorphous granular material of varying size consistent with calcium deposits surrounded by dense fibrous tissue. Histiocytes were seen occasionally. The lesion did not recur during a one year follow-up after excision.

TC commonly affects the periarticular regions of the hip, shoulder, and elbow; it may rarely affect distal locations like the hands and feet.[3]-[7] Massive