

Subcutaneous Fat Necrosis of the Newborn

Subcutaneous fat necrosis of the newborn (SFN) is a rare, transient, and self-healing disorder. It is a type of panniculitis that appears in the first few weeks of life. The newborns affected are born at term or post-term, with normal general health, although there have been cases of preterm newborns being affected.^[1] We report a case of a 6-weeks old infant, born at full-term in a hospital. The Apgar score was 6 after birth. There was history of meconium aspiration and birth asphyxia. The patient was admitted to neonatal intensive care unit (NICU) and started on injectable antibiotics in view of septicemia. On the sixth day of birth, the infant developed painful bluish swellings over both shoulders and buttocks. The swellings were insidious in onset, gradually progressing to involve the whole shoulder with similar swellings appearing over the right cheek. [Figure 1a-d] There was no history of drug intake, active or passive smoking, maternal diabetes, and preeclampsia. The antenatal course was uneventful. Cutaneous examination revealed well- to ill-defined erythematous to bluish nodules of variable sizes covering both the shoulders, extending to the arms, bilateral

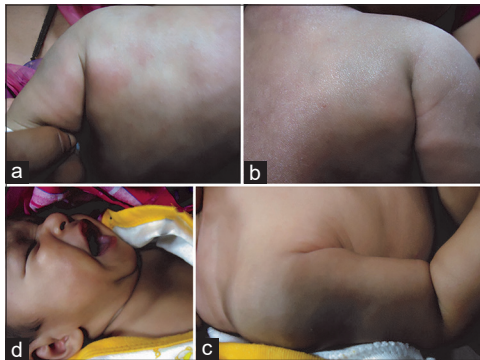


Figure 1: Presence of well- to ill-defined erythematous to bluish indurated tender nodules over both the shoulders (a) and (b) extending to the right arm (c) and right side of the face (d)

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buttocks, and right side of face. Nodules were firm in consistency and surface showed mild erythema and on palpation indurated and tender to touch. The systemic examination was normal.

The complete blood count (CBC) was normal, except hemoglobin was 9 gm/dl. The liver and kidney function tests were normal. However, there was hypercalcemia (11 gm/dl). Parathyroid hormone and vitamin D3 levels were normal. The magnetic resonance imaging (MRI) finding was suggestive of subcutaneous fibroma. Fine needle aspiration cytology from indurated plaque over the shoulder showed several macrophages and multinucleate giant cells. Histopathological findings comprised of lobular panniculitis with histiocytes and needle-shaped clefts in histiocytes and few adipocytes [Figure 2]. On ultrasonography (USG) of the abdomen there was no nephrocalcinosis. The patient was managed conservatively. Parents were counseled regarding the self-limiting course of the disease. Monitoring for serum calcium levels was done bi-weekly, and they turned to normal range within 10 days. The swellings gradually regressed over the next 3 months without any sequelae.

Dermatologists looking after infants with SFN should be aware of the

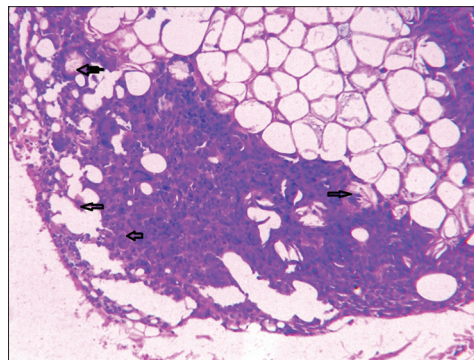


Figure 2: Microphotograph showing lobular panniculitis with histiocytes and needle-shaped clefts in histiocytes and few adipocytes (H and E, 10X)

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complications of hypercalcemia associated with long-term intellectual impairment, and sometimes, it may be fatal if unrecognized. Persistent hypercalcemia can result in metastatic calcification in the kidneys, falx cerebri, skin, myocardium, and gastric mucosa. Seizures, cardiac arrest, and renal failure are serious sequelae of hypercalcemia. Therefore, it is important for dermatologist to provide prompt and appropriate treatments.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and

other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

Reference

1. Burden AD, Krafchik BR. Subcutaneous fat necrosis of the newborn: A review of 11 cases. *Pediatr Dermatol* 1999;16:384-7.