

Clinical Images/Spotters

Subcutaneous fat necrosis of the newborn with severe hypercalcemia in an infant

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ABSTRACT

A 7-week-old male infant presented with erythematous skin nodules and hypercalcemia. The baby was diagnosed with subcutaneous fat necrosis of the newborn. The baby was managed with analgesics and various calcium-lowering measures.

Keywords: Hypercalcemia, 1-alpha-hydroxylase, neonate

CASE SUMMARY

A 7-week-old boy presented with distinct erythematous and indurated and tender nodules on the upper trunk and limbs noted from birth, along with vomiting from the 4th week of life [Figure 1]. He was born at term to a primigravida mother by an emergency cesarean section performed in view of antenatal oligohydramnios, with subsequent birth asphyxia necessitating 7-day ventilation. Episodes of vomiting and constipation prompted assessment, revealing hypercalcemia (serum calcium 22 mg/dL), leading to a referral for further management. The evaluation



Figure 1: Multiple areas of fat necrosis seen on the back of the child (black arrows).

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showed low vitamin D (3 ng/mL, normal >20), elevated 1,25-dihydroxyvitamin D (>200 pg/mL, normal 34.8–88.8), and suppressed parathyroid hormone (1.14 pg/mL, normal 15–65). A diagnosis of subcutaneous fat necrosis (SCFN) was established in the context of characteristic skin lesions, hypercalcemia, hypercalciuria, and nephrocalcinosis. The baby was managed with intravenous hydration, furosemide, subcutaneous calcitonin, and bisphosphonates (pamidronate 1 mg/kg). On follow-up, the lesions gradually resolved, and his calcium levels (10 mg/dL) returned to normal.

DISCUSSION

SCFN is a rare panniculitis that harbors 1-alpha-hydroxylase activity. Pre-eclampsia, diabetes mellitus in the mother, cord around the neck, hypothyroidism, cord prolapse, birth asphyxia, and therapeutic hypothermia are common risk factors. It presents with painful erythematous lesions, hypoglycemia, thrombocytopenia, and hypercalcemia. Management of pain and hypercalcemia with analgesics, hyperhydration, diuretics, calcitonin, and bisphosphonates is the crux of care.^[1,2]

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

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