Neonatal Subcutaneous Fat Necrosis with Severe Hypercalcemia: Case Report

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Abstract : Introduction: Subcutaneous fat necrosis of the newborn (SCFN) is a rare acute hypodermatitis characterized by skin lesions in the form of infiltrated, hard plaques and subcutaneous nodules, with a purplish-red color, occurring between the first and sixth week of life. SCFN is generally a benign condition that spontaneously regresses without sequelae, but it can be complicated by severe hypercalcemia. Methodology: This is a retrospective case report of neonatal subcutaneous fat necrosis complicated with severe hypercalcemia and nephrocalcinosis. Results: This is a case of a female newborn with a family history of a hypothyroid mother on Levothyrox, born to non-consanguineous parents and from a well-monitored pregnancy. The newborn was delivered by cesarean section at 39 weeks gestation due to severe preeclampsia. She was admitted to the Neonatal Intensive Care Unit at 1 hour of life for the management of grade 1 perinatal asphyxia and immediate neonatal respiratory distress related to transient respiratory distress. Hospitalization was complicated by a healthcare-associated infection, requiring intravenous antibiotics for ten days, with a good clinical and biological response. On the 20th day of life, she developed skin lesions in the form of indurated purplish-red nodules on the back and on both arms. A SCFN was suspected. A calcium level test was conducted, which returned a result of 3 mmol/L. The rest of the phosphocalcic assessment was normal, with early signs of nephrocalcinosis observed on renal ultrasound. The diagnosis of SCFN complicated by nephrocalcinosis associated with severe hypercalcemia was made, and the condition improved with intravenous hydration and corticosteroid therapy. Conclusion: SCFN is a rare and generally benign hypodermatitis in newborns with an etiology that is still poorly understood. Despite its benign nature, SCFN can be complicated by hypercalcemia, which can sometimes be life-threatening. Therefore, it is important to conduct a thorough skin examination of newborns, especially those with risk factors, to detect and correct any potential hypercalcemia.

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