Calcinosis cutis in a preterm newborn

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Clinical image description

A 25-day-old preterm newborn of 25 weeks of gestation, presented a 10 x 5mm hard nodular swelling in the internal malleolus of the right ankle without inflammatory signs. Radiograph revealed calcification of soft tissue beside the tibia. Calcium gluconate was administered by peripheral vein in that zone from 7 to 10 days-old. He did not present other calcifications and the phosphocalcic metabolism was normal. It was diagnosed as iatrogenic calcinosis cutis following extravasation of intravenous medication.

Calcinosis cutis is a term used to describe a group of disorders characterized by hydroxyapatite crystals of calcium-phosphate deposited in the skin. There are four etiologies: dystrophic, metastatic, iatrogenic and idiopathic.

Repeated attempts to insert a peripheral line and extravasations of solutions cause local elevation of calcium around the soft tissues. The mean between infusion and clinical signs is 13 days (2h to 24 days) [1]. Radiography is the gold standard for diagnosis but it could be initially negative because X-ray findings usually appear within 1-3 weeks [2]. Local inflammatory signs are frequently present, which is mistaken for cellulitis, osteomyelitis, abscess and thrombophlebitis. In most reported cases, progressive clearing of calcification occur without any special treatment 8 weeks after the onset [3].

The particularity of this case lies in the lack of visual inflammatory signs that were unnoticed until the appearance of the skin lump. This entity should be considered in the presence of inflammation signs in areas of previous venipuncture to avoid aggressive complementary tests and unnecessary treatments.

References