

HYPERCALCEMIA DUE TO SUBCUTANEOUS FAT NECROSIS IN A NEWBORN SUCCESSFULLY TREATED WITH PAMIDRONATE INFUSION THERAPY

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Introduction:

Subcutaneous fat necrosis (SFN) of the newborn is an inflammatory disorder of the adipose tissue that rarely disease which may be complicated with potentially life-threatening hypercalcemia. The etiology of hypercalcemia was related to persistently elevated 1,25-dihydroxyvitamin D₃ levels.

Case:

The case 47 days (length 0.3 SDS; weight -1.48 SDS) who presented sucking difficulty and debility duo to hypercalcemia with an initial physical examination determined indurated plaques over the back and buttocks without erythema. The baby girl at 38 weeks, weighing 4000 grams were born by cesarean section. Newborn with complicated meconium aspiration syndrome had received treatment in new-born-service for 15 days. Laboratory and imaging tests revealed severe hypercalcemia (19.92 mg/dl), normal serum phosphorous (4.0 mg/dl), suppressed parathyroid hormone (3 pg/ml), hypercalciuria (2.37 urinary calcium (mg)/creatinine ratios (mg)), elevated 1,25-dihydroxyvitamin D₃ levels (112 pg/ml) and nephrocalcinosis. Despite treatment with IV fluids, and furosemide, calcium levels remained high. The patient was given one doses (1 mg/kg/dose) of pamidronate. Calcium/creatinine ratios and calcium levels decreased within 72 h. Clinical symptoms resolved rapidly after normalization of serum calcium levels.

A punch biopsy specimen showed multinucleated giant cells (Figure 1 and Figure 2). No persistent nephrocalcinosis was observed.

The usual treatment of hypercalcemia includes hyperhydration, corticosteroids and diet. This treatment is not always effective in normalizing plasma calcium concentration. Recently, pamidronate has been used in the treatment of hypercalcemia associated with many disorders.

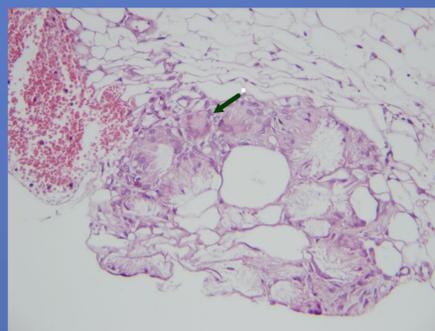


Figure 1.

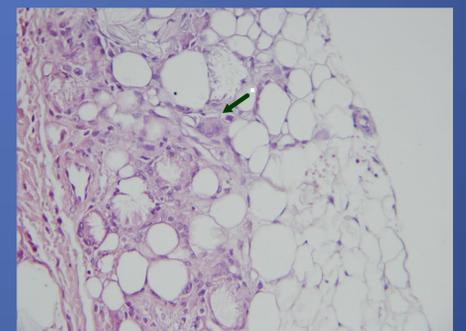


Figure 2.

Conclusions:

We report a 47-days-old baby who developed subcutaneous fat necrosis presented with symptomatic hypercalcemia which successfully treated with pamidronate infusion therapy. Pamidronate is effective, well-tolerated in the short-term.