



HYPERCALCEMIA WITH SUPPRESSED PARATHYROID HORMONE IN A PATIENT WITH RHEUMATOID ARTHRITIS AFTER METHACRYLATE USE - CASE REPORT

Débora Rocha de Moura Rodrigues de Aguiar (Hospital Federal de Bonsucesso, RIO DE JANEIRO, RJ, Brasil), Luiz Felipe Dipe (Hospital Federal de Bonsucesso, Rio de Janeiro, RJ, Brasil), Julia Yoneshigue Laranja de Oliveira (Hospital Federal de Bonsucesso, Rio de Janeiro, RJ, Brasil), Paula Guedes Ferreira da Silva (Hospital Federal de Bonsucesso, Rio de Janeiro, RJ, Brasil), Lucas Balieiro Dias (Hospital Federal de Bonsucesso, Rio de Janeiro, RJ, Brasil), Mauricio Mello Mendes Junior (Hospital Federal de Bonsucesso, Rio de Janeiro, RJ, Brasil), Maria Celia Carvalho Pereira (Hospital Federal de Bonsucesso, RIO DE JANEIRO, RJ, Brasil), Carlos Baptista Figueiredo (Hospital Federal de Bonsucesso, Rio de Janeiro, RJ, Brasil)

BACKGROUND

Hypercalcemia is associated with granulomatous diseases, mainly tuberculosis and sarcoidosis. Foreign body granuloma can also lead to hypercalcemia, being related to the various substances used for filling such as methacrylate and silicones. The increase of serum calcium occurs independently of parathyroid hormone (PTH) since it is related to the extra renal production of calcitriol by alpha 1 hydroxylase in activated mononuclear cells, mainly in granuloma macrophages.

CASE REPORT

A 59 year-old female with systemic hypertension, diabetes mellitus and rheumatoid arthritis (erosive arthritis, positive rheumatoid factor) since 2002. He made continuous use of nonsteroidal anti-inflammatory, evolving with chronic kidney disease (CKD) with creatinine clearance 22.6 ml / min / 1.73 m² (CKD EPI). Serologies for hepatitis B, C and HIV negative. During the follow-up, she complained of asthenia, and calcium hypercalcemia of 13.1 mg / dL was observed with albumin 3.5 g / dL with PTH less than 3 mg / dL. Serum phosphate and magnesium were normal. On physical examination, an increase in the left inguinal lymph node was observed. Magnetic Resonance Imaging was show lymph node enlargement measuring 3.4 x 2.6 cm on the left chain and 2.6 x 1.7 cm on the right chain, enlarged lymph nodes on both common iliac chains, and thickening and altered signal compromising the subcutaneous tissue in the gluteal regions, suggesting administration of exogenous material. Patient refers to application of methacrylate for esthetic purposes in gluteus in 2014. Biopsy of the lymph node with macrophages and giant cells multinucleated of foreign body type. Serum dosage of 25 hydroxyvitamin D = 8.6 pg / mL with 1,25 hydroxyvitamin D of 64.2 pg / mL (VR = 19.9 and 79.3 pg / mL). Initiated calcium restriction diet for 400mg / day, oral glucocorticoid. Patient with osteoporosis with fracture, in front of CKD we opted for the use of denosumab. Patient is followed up with control of hypercalcemia, maintaining stable renal function.

CONCLUSION

Secondary hypercalcemia to granulomatous diseases was established by Harrell et Fisher in 1939. Hypercalcemia after methacrylate injection is uncommon. The presence of long-term rheumatoid arthritis may have contributed to granuloma formation by the production of proinflammatory cytokines. Corticosteroids remain the main therapeutic option for hypercalcemia secondary to the production of 1,25 hydroxyvitamin D.

Consent for publication

The authors declare that the patient was oriented and signed the written informed consent form.