An unusual hypercalciemia presentation in sarcoidosis

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Abstract

We present an unusual case of acute hypercalcaemia of (5.5mmol/L) in a challenging circumstances in a 37 year old lady with confirmed sarcoidosis that had no other cause and required aggressive management to normalise it and necessitate starting of calcitonin.This 37 years old female patient ,with a background of type 2 diabetes mellitus and sarcoidosis presented to the acute medicine unit with few days history of lethargy and confusion, her lood test showed calcium level of 4.8 mmol/L which interestingly went up to 5.5mmol/L after aggresive rehydration

This case is unusual in many aspect - such level of high calcium is uncommon with sarcoidosis ,This patient did not require vitamen D or steroid supplement previously, providing that steroid needs 2-5 days to act calcitonin was the best option for rapid calcium reduction which was effectivly able to bring the calcium level down within few hours. .

Case presentation

A 37 years old female patient ,with a background of type 2 diabetes mellitus and sarcoidosis presented to the emergemy department with lethargy and palpitation .
On examination she was found to be confused and clinically dehydrated .

Investigations

initial investigation reported a high calcium level of (5.5mmol/L) , acute kidney injury and sinus tachycardia on ECG . Further investigation illicited normal phosphate and vitamin D with suppressed(parathyroid hormone 7 ng/L) and a high but stable (ACE level 169 u/L).

Treatment , Outcome and follow-up

The patient was treated agrresivley with IV fluids , received 5 L /24h , then prednisolone 20 mg orally was prescribed with interestingly rebound rise in calcium levels from 4.3mmol/L to 5.5mmol/L over 12 hours , which raised concerns so prescribing calcitonin was the next wise and crucial option of management in order to rapidly reduce the high calcium levels ,calcitonin was given 100 units s/c which has led to dramatic reduction in calcium levels From 5.5mmol/L to 3.4mmol/L following that she was commenced on regular oral tapering steroids regime , and discharged home in 6 days with calcium level of 2.9 mmol/L on alendronic acid 70mg orally once a week. up to the latest follow-up which is 2 months after discharge her calcium still maintained in a range of 2.2mmol/L , with a plan of continue steroid tapering and 2 weekly and then 3 monthly calcium check up.

Discussion

This case is unusual in many aspect ;

- such level of high calcium is uncommon with sarcoidosis

-This patient did not require vitamen D supplement previously which can precipitate hypercalciemia in sarcoidosis

-providing that steroid needs 2-5 days to act calcitonin was the best option for rapid calcium reduction which was effectivly able to bring the calcium level down within few hours.