

Drowsy woman

A 67 yr old woman presents to your department with increasing thirst and drowsiness.
Her Calcium is 3.45 , U 10.1, Cr73

What symptoms are associated with this level of Calcium? (2 marks)

Nausea/ Vomiting,
Alterations of mental status
Abdominal or flank pain (The workup of patients with a new kidney stone occasionally reveals an elevated calcium level.)
Constipation
Lethargy Depression
Weakness and vague muscle/joint aches
Polyuria Headache

Give 5 causes of this level of Calcium (5 marks)

Primary hyperparathyroidism
Malignancy
Granulomatous disease
Sarcoidosis
Tuberculosis
Drugs
Thiazide diuretics
Vitamin D toxicity
Lithium
Milk alkali syndrome
Familial hypercalciuric hypercalcaemia
Endocrine
Thyrotoxicosis
Adrenal crisis
Immobilisation
Renal Failure
Aluminum intoxication

Describe your initial therapy of this patient (1 marks)

Rehydration with N saline

IF this is not effective, what would be your next two therapeutic choices (2 marks)

calcitonin
biphosphonate