Hypercalcaemia referrals from primary care: A retrospective audit

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INTRODUCTION

Primary Hyperparathyroidism (PHP) is the commonest cause of hypercalcaemia, with an annual incidence rate (AIR) of 4 /100,000 and peak age incidence of 50-60 years. King's College Hospital (KCH) serves a population of around 500,000 of >18 years of age. A corrected calcium (cCa) ≥3.00 mmol/L is a critical phoning limit in our biochemistry laboratory.

AIM & METHODS

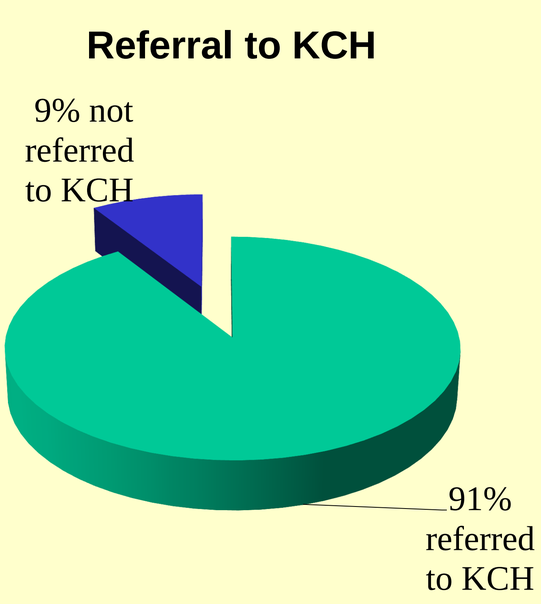
AIM: Our aim was to assess the incidence of hypercalcaemia in the community, the referral pattern of hypercalcaemia in the primary care and the laboratory practice on phoning out the critical results.

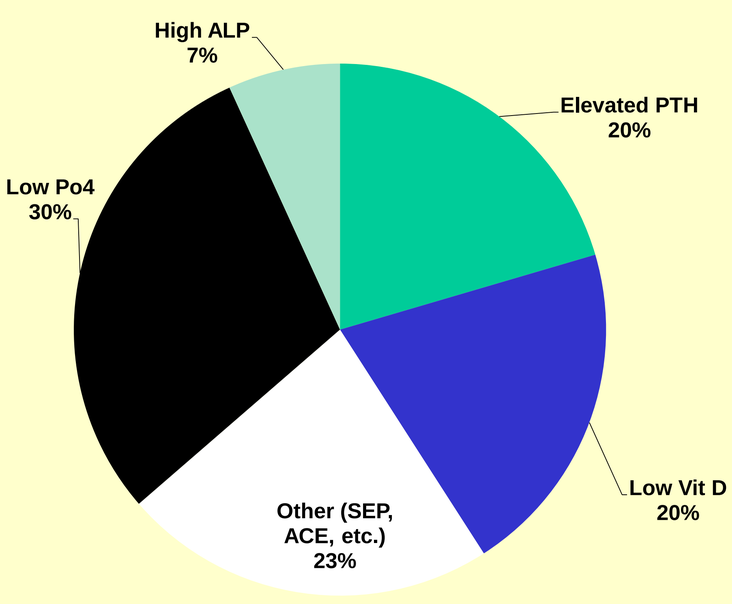
Methods: This retrospective audit included bone profiles (cCa, phosphate & alkaline phosphatase) from primary care between July 2010 and November 2012. Patients with cCa ≥2.8 mmol/L, aged >18 years were included. Patients known to have hypercalcaemia previously were excluded. We also assessed the status of vitamin D and parathyroid hormone in the hypercalcaemic individuals.

RESULTS

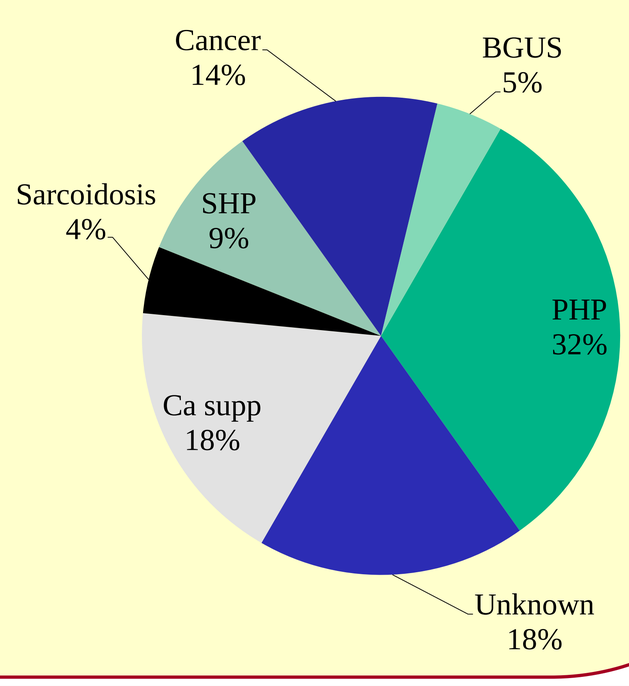
Overall 22 patients had cCa ≥2.8 mmol/L (19F) aged 59 (36-82) years. 68% (n=15) were referred to KCH specifically for hypercalcaemia, 23% (n=5) for other reasons (including thyrotoxicosis, thyroidectomy, drowsiness, trauma, etc.) and 9% (n=2) were not referred. 32% had PHP, 18% were on Ca/vitamin D supplements, 14% had malignancies (lung ,prostate , etc.) and 36% had other causes (including secondary hyperparathyroidism, sarcoidosis, biclonal gammopathy with uncertain significance (BGUS) or no known cause. Vitamin D was requested in 50% and parathyroid hormone in 60% but none had a urine calcium request in order to rule out familial hypocalciuric hypercalcaemia. All cCA ≥3.00 mmol/L were phoned by the laboratory. Our study led to referral and diagnosis of a patient with PHP who was not investigated since 2010.

PTH & Bone profile results distribution





Frequency of the conditions associated with high Ca



CONCLUSIONS

The AIR of hypercalcaemia was 1.9/100,000. There is a wide variation in the referral practice for hypercalcaemia in the community. A guideline on hypercalcaemia management for the primary care may improve patient outcome.

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