Orthopaedic surgery in the elderly

Sir,

I read with interest the article *Orthopaedic surgery in the elderly* by Drs Tremel and Kroker (Vol 61(6), 2000, p. 417). Surgical morbidity and anaesthetic risk correlates well with concomitant medical illness(es). We did an audit on outcome of patients with good indicators (Abbreviated Mental test Score ≥7, Class 1&2 on American society of Anaesthesiologist rating and total independent in Barthel ADL Functional Assessment Scale) of recovery from fracture of proximal femur (Kausar et al, 1999). This subgroup constituted 33% of the total number of patients admitted with fractured neck of femur over 4 months. 8% had no co-morbidity, others had 1–2 co-existing illness(es). In 3 patients (12%) surgery had to delayed as a result of a medical problem. Postoperative complications occurred in 15 patients 60%). The postoperative medical complications were urinary tract infection, acute confusional episode, electrolyte imbalances, fall, heart failure, bronchopneumonia and urinary retention. The postoperative surgical complications were wound infection and wound haematoma.

The median length of stay was 14 days and 19 patients (76%) were discharged directly from acute hospital care to their homes. The inhospital mortality was 8% and the cause of death was heart failure and bronchopneumonia. It seems likely that the waning immunity which results from intrinsic ageing itself may contribute in part to the high incidence of the infection, encountered in this group of patients (Evans and Williams, 1992). Occult cardiovascular disease in the elderly manifests itself when exposed to major stresses of trauma and operations.

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Kausar SA, Robertson DR, Moreton J (1999) An audit of outcomes of patients with good indicators of recovery from fracture of proximal femur. Royal United Hospital, Bath

Multiple myeloma with hyperparathyroidism

Sir,

A 71-year old gentleman presented with bone pain, pathological fracture of ribs and corrected calcium of 3.25 mmol/l. Multiple myeloma (or more precisely Bence Jones myeloma) was diagnosed based on urinary light chain excretion without serum paraproteinaemia, lytic lesions on skeletal survey and bone marrow biopsy which showed 44% plasma cells infiltration. Beta2microglobulin was markedly raised at 9 mg/l, indicating a poor prognosis. His renal function fluctuated during the early phase of his disease. Chemotherapy with prednisolone and melphalan was commenced together with monthly pamidronate infusions. The hypercalcaemia responded to pamidronate infusion initially and normocalcaemia was maintained for 6 weeks. He responded well to chemotherapy as shown by the reduction in urinary protein excretion to virtually nil, reduction in plasma cell infiltration on bone marrow biopsy to 20% and reduction of beta2microglobulin to normal range.

However, hypercalcaemia persisted thereafter with corrected calcium levels around 3 mmol/l. This gentleman also had a positive bone scan which was unusual, but might occur, in myeloma. We found that his intact parathyroid hormone (PTH) level was raised at 218 ng/l and 143 ng/l (normal 12–17 ng/l) on two occasions, together with raised 1,25 vitamin D level (143 pg/ml), low normal phosphate (0.91 mmol/l) and normal alkaline phosphatase (76 IU/l). This is consistent with primary hyperparathyroidism. The sestamibi scan of his neck was negative. Neck exploration was discussed but he relapsed shortly after. He failed to respond to salvage chemotherapy and died from progressive renal failure. Postmortem was not performed.

Lack of response to pamidronate should raise the possibility of another cause of hypercalcaemia if other clinical indices of myeloma were improving. We believe our patient had primary hyperparathyroidism based on hypercalcaemia with raised intact-PTH measured using the highly sensitive immunoradiometric assay, as reported by Lepage et al (1992), and also there had been no reports to date of myeloma producing ectopic PTH.

The nature of the coexistence of both diseases is unclear. Previous reports by Rao et al (1991) and Goto et al (1995) stated that this is coincidental and conforms to the expected frequency, given the prevalence and incidence of both diseases. Their pathogenesis in bones is complicated and how one affects the other remains speculative. Otsuka et al (1997) postulated the involvement of cytokines and possible direct effect of PTH on myeloma cells. PTH indirectly stimulates IL-6 production which is an important growth factor for myeloma cells, and had been shown to cause hypercalcaemia in vivo.

Untreated hyperparathyroidism in our patient could have made his myeloma more aggressive, with early relapse and rapid progression. Coexistence of myeloma and primary hyperparathyroidism may be more common than thought, having been previously reported in fifteen cases worldwide. Future challenges lie in identifying the impact of monthly pamidronate infusions and fluctuating renal function on hyperparathyroidism, the natural history of co-existing cases and the role of parathyroidectomy.

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Otsuka F, Hayakawa N, Ogura T et al (1997) A case of primary hyperparathyroidism accompanying multiple myeloma. *Endocrine J* **44(1)**: 105–9

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Correction

In the letter by Dr McLeod on the use of Viagra by patients with heart disease (Vol 61(8), 2000, p. 584), the wrong figure was given. Rather than stating that 9% of impotence is psychological, the sentence should have read '..., namely that 99% (or thereabouts) of impotence is 'psychological'.'