A hidden cause of renal failure

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A frail 84-year-old man of SE Asian origin with a history of metastatic prostate cancer presented with non-specific deterioration. Initial investigations showed acute on chronic renal failure (creatinine 648 μmol/L; baseline 153), hyperkalaemia (K⁺ 6.4 mmol/L) and a marked leucocytosis (WBC 46 × 10⁹/L; neutrophils 33 × 10⁹/L). The only significant features found on examination were mild suprapubic tenderness and a diffuse tender left submandibular mass (Figure 2). This was thought to be a lymph node, but was difficult to assess due to a dense beard and communication limitation by language barriers.

Immediate treatment was correction of the hyperkalaemia by haemodialysis. A renal ultrasound did not show any obstruction and the prostate-specific antigen was normal. Other investigations revealed a serum paraprotein IgG lambda 14.3 g/L with high concentrations of free lambda light chains in blood and urine. Bone marrow aspirate was consistent with myeloma and this was accepted as the cause of his renal failure.

The patient’s main complaint was ‘toothache’. Nothing was found on examination of the mouth, and the patient was advised to visit his dentist after discharge. After further requests from the patient, a maxillofacial review was sought. Unexpectedly, orthopantogram films showed a large destructive mass in the left mandible (Figure 3). A CT scan confirmed this (Figures 1 and 4), and a biopsy showed a plasmacytoma (now over a month since admission). The patient received local radiotherapy and chemotherapy with dexamethasone, cyclophosphamide and thalidomide.

Conflict of interest statement. None declared.

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Fig. 1. CT scan and 3D reconstructed CT scan, as performed by UHL.

Fig. 2. The patient’s jaw as photographed by UHL medical illustrations.
Fig. 3. OPG radiograph performed by UHL.

Fig. 4. CT scan and 3D reconstructed CT scan, as performed by UHL.