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LETTER TO THE EDITOR

Extramedullary manifestations of multiple myeloma in the thyroid gland and in the lungs: excellent response to therapy

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Dear Editor,

A 74-year-old woman was diagnosed with multiple myeloma type IgG kappa, Salmon and Durie stage III A in August 2004. Haemoglobin was 108 g/l, IgG 90.3 g/l, and calcium was normal. Bone marrow infiltration was 40–50%. She received chemotherapy with cyclophosphamide and prednisone from September 04 to July 05 and reached a partial remission. Upon progression in February 06, she was treated with high-dose dexamethasone until July 06 and had another partial remission. From June 07 to October 07, she was treated with bortezomib and dexamethasone which resulted in a near complete remission. In June 08, CT scan revealed enlargement of the right thyroid lobe (8.6× 5.3 cm). Cytology showed plasma cells, compatible with extramedullary myeloma. IgG remained normal. She received radiotherapy to the right cervical region (50 Gy). During radiotherapy, M-protein was increasing. CT scan performed 2 weeks after the end of radiotherapy showed an unchanged right thyroid lobe. Four weeks later, thalidomide and dexamethasone were started. After three cycles, a serological and morphological complete remission was obtained. Treatment was stopped in December 08. In March 09, a small monoclonal peak in the serum protein electrophoresis was detected. In May 09, CT scan performed because of persistent cough with minor haemoptysis revealed a large mediastinal mass (6.4×5.1×4.0 cm). Bronchial biopsy showed plasma cells infiltrating the mucosa compatible with extramedullary myeloma. Lenalidomide, high-dose dexamethasone and radiotherapy to the mediastinum (30 Gy) were started concomitantly and resulted in another complete remission (Fig. 1). Therapy with lenalidomide and low-dose dexamethasone is currently ongoing.

Extramedullary (EM) manifestations of multiple myeloma can occur at primary diagnosis, during the disease or as solitary EM plasmocytoma without bone marrow involvement [1]. A longitudinal study on extramedullary disease on 1,003 consecutive myeloma patients showed a rising incidence of EM in the last decades, from 4% in the period 1971–93 to 12% between 2000 and 2007 [2]. This trend has been attributed to more sensitive imaging techniques and prolonged patients' survival. There is no correlation between high-dose chemotherapy or the use of novel agents and the increased incidence of EM disease [2]. EM manifestations of multiple myeloma indicate poor prognosis [3]. Patients with EM disease during follow-up had lower levels of serum M-protein and haemoglobin and increased lactate dehydrogenase (LDH), compared to patients with EM disease at diagnosis [2]. Our patient had, at both EM relapses, normal haemoglobin and LDH; M-protein was low.

EM myeloma is frequently treated with radiotherapy despite its role is not well defined in this setting. Forty-four percent of patients with EM disease during follow-up received radiation therapy [2]. There is no consensus on the effect of thalidomide on extramedullary manifestations

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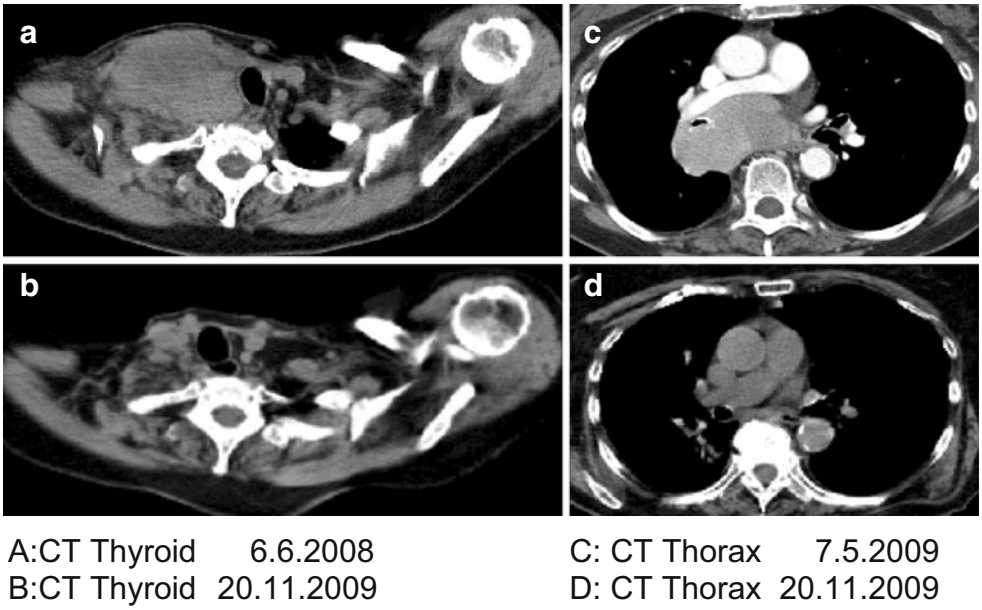

Fig. 1 CT-scans before and after therapy (see text)

of MM [4–6]. Reports indicate low response rates of EM disease to thalidomide. Our patient had recurrent EM relapses at two different rarely involved sites, she showed excellent responses to both currently available IMiDs and has long survival of 21 months after first EM relapse. This is in contrast to a recently reported patient with extramedullary disease in the thyroid and the pericardium at presentation who did not respond to any treatment [7].

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