Tri-lineage disease involving sideroblastic anaemia, multiple myeloma and B-cell non-Hodgkin's lymphoma in the same patient

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LETTER TO THE EDITOR

Tri-lineage disease involving sideroblastic anaemia, multiple myeloma and B-cell non-Hodgkin's lymphoma in the same patient

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Dear Editor,

We reported an exceptional case of a tri-lineage disease arising in a 67-year-old man. The patient was followed for IgG lambda monoclonal gammopathy of undetermined signification (MGUS) for 10 years. He developed painful symptomatic multiple myeloma (14% marrow mature plasmocytes IgG lambda of 28 g/l, osteolytic lesions of humerus, skull and femur) and his ISS score was 2 (β2-microglobuline at 4.5 mg/l and albumin at 40 g/l). Conventional karyotype showed loss of chromosome Y, and *in-situ* fluorescence hybridisation revealed del(13q). Interestingly, the same marrow aspirate revealed 5% blasts and 31% erythroblasts despite the haemoglobin level being 9.5 g/dl. Refractory anaemia with ringed sideroblasts was identified by Perls' staining, which showed 53% ringed sideroblasts (Fig. 1).

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The patient was treated using the VAD (Vincristin, adriamycin and dexamethasone) standard protocol and EPO. After three courses of chemotherapy, the response was evaluated to be at 20% only on the heavy chain compound in the plasma. Before the fourth course of treatment, he developed a dyspnoea. Pulmonary computed tomography showed four tumours ranging in size from 2 to 7 cm. A transparietal biopsy was performed, and immunohistochemistry revealed the presence of CD5−/CD10−/CD20+ diffuse large B-cell non-Hodgkin's lymphoma (All B-cells appeared positive for lambda light chain (Fig. 2). Unfortunately, the patient died 5 days after the biopsy.

This is the first case reporting the concomitant appearance of refractory anaemia with ringed sideroblasts, multiple myeloma and B-cell non-Hodgkin's lymphoma in the same patient. Furthermore, the lambda light chain was identified in the plasmocytic and lymphoid tissues. Association of the first two diseases has been published before [1–4]. However, only four concomitant cases with a predominant IgA isotype have been reported. Secondary cases of ringed sideroblasts following treatment of myeloma, with odd-ratio of 100, have been described as well [5]. The association between a non-Hodgkin's lymphoma (T type) and multiple myeloma has been reported only in one case [6].

Our brief report confirmed that a tri-lineage haematological disease may appear in the same patient. We suggest that the multiple myeloma and DLCBL may originate from the same clone because both presented the same light chain.

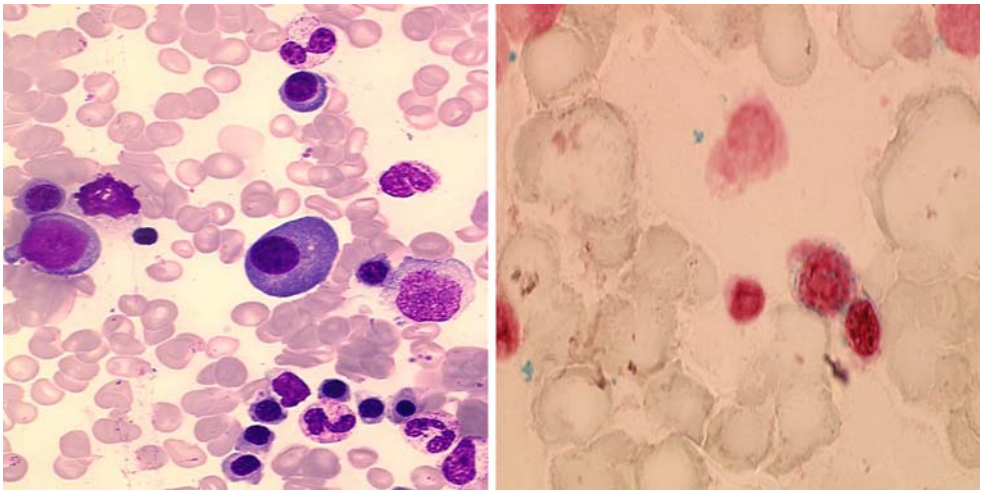

Fig. 1 Cytological aspect of bone marrow aspirates with mature plasmocytes and erythroblasts. Perls coloration confirmed the presence of ringed sideroblasts

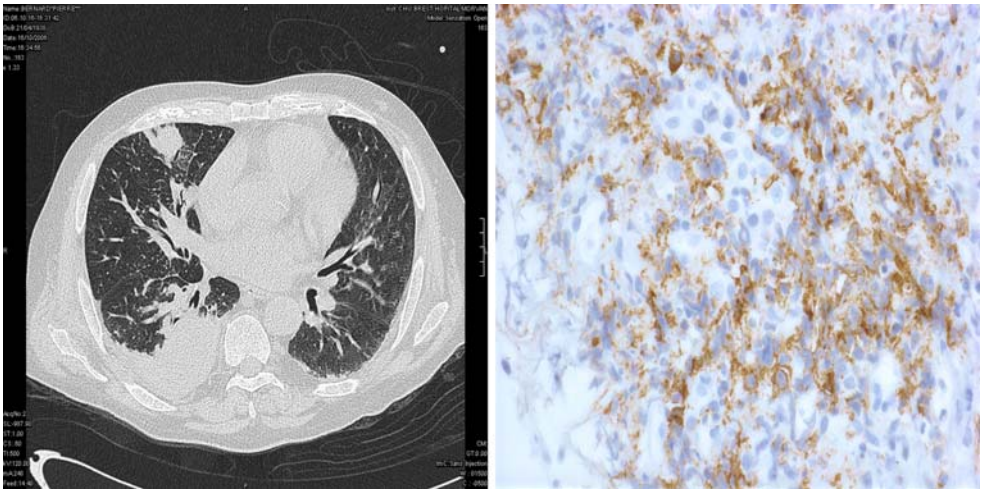

Fig. 2 A computed tomography scan showed two pulmonary tumours. Anti-CD20 staining on transparietal biopsy tissue confirmed the B-cell lineage with identification of diffuse large B-cell lymphoma

The cumulative haematological diseases were fatal to the patient.

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