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Myelofibrosis Associated with IgG Myeloma

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Idiopathic myelofibrosis is considered a myelo-proliferative disease. Myelofibrosis is sometimes found in malignancies and is typically present in hairy cell leukemia [14]: yet in all instances myelofibrosis is considered a secondary reaction [3].

Myelofibrosis associated with myeloma has been reported in a few patients [2]. We would like to report on a further case.

A 49-year-old woman was admitted suffering from easy fatigability, diffuse musculoskeletal pain and episodes of hemoptysis. Physical examination revealed a mild hepatomegaly. Chest X-ray was normal. A complete skeletal survey indicated the presence of dense trabeculae in the vertebrae and in the pelvic bones, but no lytic lesions were observed in the bones examined. Laboratory studies revealed a hemoglobin level of 7.8 g/dl, a WBC count of $10.5 \times 10^9/l$, with 60% polymorphonuclear leukocytes, 7% myelocytes, 2% > eosinophils, 23% lymphocytes and 9% monocytes, 8 normo-blasts per 100 WBC, platelet count $71 \times 10^9/l$, and ESR 10 mm/h. Serum immunoelectrophoresis revealed an IgG λ + paraprotein.

An open bone marrow biopsy of the iliac crest showed fibrosis of the marrow with nests of plasma cells. Normal hemopoietic cells were absent. The coexistence of myelomatosis and myelofibrosis in this patient is well established. The clinical and laboratory features are typical and the bone marrow biopsy, done before any therapy was given, confirms the diagnosis. The finding of myelofibrosis and myelomatosis in the same patient is a rare event. Though it is possible that these two unrelated disorders coexist merely by chance, it is tempting to presume that they are somehow asso-

ciated. At present, myelofibrosis is generally considered a secondary reaction [3], yet the mechanism of production of fibrosis is not clear. Recently, an increased urinary hydroxyproline excretion has been signaled in myelofibrosis associated with metastasis but not in agnogenic myeloid metaplas-

Fig. 1. Radiograph of dorsal and lumbar spine revealing omogenous osteocondensation.

140

Leone/Scuderi/Carlesimo/Crivelli

Fig. 2. a Double precipitation ring observed by radial immuno-diffusion with anti-IgG (gamma chain) serum plates, b Immuno-electrophoretic pattern of normal (N) and patient's (P) serum observed with monospecific anti-gamma, κ and λ rabbit antisera.

$K j^{1/2} \wedge^*$

$-i^{\wedge^2} v$

Fig. 3. Microscopic section of iliac crest showing striking infiltration by plasmacells and extensive fibrosis.

is [5]. This finding suggests differences in the pathogenesis. In our case the urinary hydroxyproline excretion was repeatedly within the normal range.

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