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Megakaryoblastic Transformation of Essential Thrombocythemia, Hypercalcemia and Lytic Bone Lesions

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Attar et al. [1] report a case of hypercalcemia complicating myelomonoblastic transformation of chronic myeloid leukemia. We recently observed the association between hypercalcemia and lytic bone lesions in a patient with megakaryoblastic transformation of essential thrombocythemia (ET). A 72-year-old man, with an 18-year history of ET treated with hydroxyurea, was admitted to our department in November 1988 because of weakness, anorexia and weight loss. On physical examination, there was hepatosplenomegaly but no lymphadenopathy. Blood cell counts, although normal 3 months prior to admission, now showed hemoglobin 8 g/dl, white count 23×10^9/l with 13% blast cells and platelets 73×10^9/l. Serum creatinine was 293 μmol/l, sodium and potassium were normal, serum calcium was 3.75 mmol/l (normal range 2.24–2.62) and serum alkaline phosphatase was 179 IU/l (normal range 80–220). No monoclonal gammopathy was demonstrated in serum or urine, but skeletal X-ray films showed osteolytic lesions on skull and proximal long bones mimicking multiple myeloma. Bone marrow aspirate and biopsy were performed showing diffuse marrow infiltration by FAB M7 blast cells, and reticulin fibrosis. The patient died 5 days after admission because of renal failure, refractory hypercalcemia and unresponsive chest infection.

Lytic bone lesions and hypercalcemia are frequent in multiple myeloma, but remain rare in other B-cell malignancies [2, 3]. However, lytic bone lesions and/or hypercalcemia are exceptional in nonlymphoid disorders [4]. Furthermore, this case report of ET is remarkable for its clinical course. Blastic transformation is very rare [5] and the FAB M7 type is exceptional, especially in patients treated with nonalkylating agents. To our knowledge, only one case has been previously reported [6].

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