

Clinica-Medical Image

Myeloblasts in Pleural Effusion

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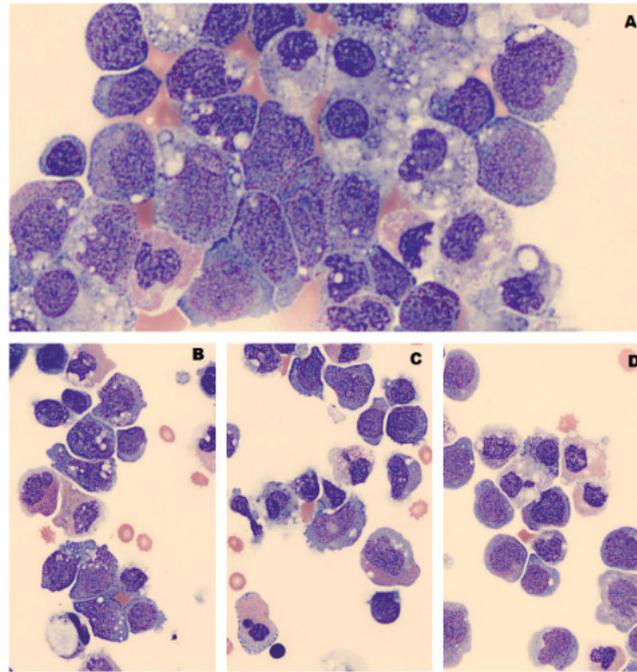


Figure 1 (Panels A-D): Microscopic examination of pleural fluid revealed multiple immature cells of medium to large size, abundant cytoplasm with intermediate granulation and large nucleus with nucleoli, suggestive of myeloblasts. Original magnification 1000x, May-Grünwald Giemsa stain.

Clinical Image

A 68-year-old woman presented with loss of strength in lower limbs. Magnetic resonance imaging revealed a neoplastic infiltration at dorsal level. A biopsy specimen showed myeloid sarcoma. A complete blood count showed hemoglobin of 10.9 g/dL, platelets $113 \times 10^9/L$ and white blood cell count $3.05 \times 10^9/L$. A peripheral blood smear and a bone marrow examination revealed no alterations. The patient also had a pleural effusion. The pleural fluid analysis revealed a white blood cell count of 3882/uL and microscopic examination revealed that 53% of cells were myeloblasts (Figure 1). The immunophenotypic study was compatible with myeloid sarcoma, agreeing with the immunohistochemical profile of the bone tumor. Myeloid sarcoma is a tumor mass of myeloblasts occurring in an extramedullary site. It is an infrequent neoplasm that usually occurs in the context of acute myeloid leukemia, presentation as a primary lesion without underlying hematological disorders is exceptional.

Keywords: Pleural effusion; Myeloblasts; Myeloid sarcoma; Clinical laboratory

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