Histopathology Quiz - Case 2

A 50 year-old male was recently diagnosed with a classical Hodgkin’s lymphoma (mixed cellularity) on the grounds of a histological evaluation of a cervical lymph node biopsy. Before treatment application a bone marrow trephine biopsy was performed on the purpose of the determination of the stage of the patient’s disease.

Histological examination of the bone marrow trephine biopsy showed normal cellularity (40% adipocytes). The erythroid lineage showed mild hyperplasia whereas the myeloid to erythroid ration was 3:2. The number of megakaryocytes was in normal levels. A characteristic finding was the presence of multiple nodular, perivascular or paratrabecular lesions with significant fibrosis composed of pale, frequently spindle-shaped cells with oval or reniform nuclei (figures 1, 2). These cells were admixed with a variable number of eosinophils, lymphocytes and see-green histiocytes (fig. 3).

On Giemsa staining these spindle-shaped cells contained apparent positive granules. Moreover, on immunohistochemical grounds they were positive for CD68 (PGM1, fig. 4) and c-KIT (CD117, fig. 5) antibodies. Immunostaining for CD30 and CD15 antibodies was negative.

Comment

The diagnosis of SM-AHNMD is established when the criteria of systemic mastocytosis (defined by WHO classification 2001) are met and coexists with a clonal hematological non-mast cell lineage disorder (myelodysplastic syndrome, chronic myeloproliferative disease, acute myelogenous leukemia or lymphomai).

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