Unusual morphologic presentation of plasma cells during the course of a multiple myeloma

A 60 year-old woman presented a multiple myeloma previously treated with 6 cycles of VBMCP (vincristine, carmustine, melphalan, cyclophosphamide, and prednisolone) and currently treated with thalidomide and dexamethasone. The bone marrow aspirates performed 2 months after the last cycle of chemotherapy revealed 15% of atypical giant and highly dysmorphic plasma cells. Most cells had a unique round and giant nucleus or several heterogeneous big sized nuclei. Only seldom cells had typical plasma cell morphology. This cytologic pattern was particularly confusing with megakaryocytes. It remained questionable if this very unusual plasma cell morphology resulted from the evolution of the disease, the chemotherapy’s effects or both.

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Figure 1. Three giant plasma cells and 2 with more usual appearence (bone marrow, MGG, x200).

Figure 2. One giant plasma cell and a megakaryocyte with emperipolesis (bone marrow, MGG, x200).

Figure 3. One giant plasma cell and a megakaryocyte (bone marrow, MGG, x400).

Figure 4. One giant plasma cell and a megakaryocyte (bone marrow, MGG, x400).