HEMATOLOGY, TRANSFUSION AND CELL THERAPY

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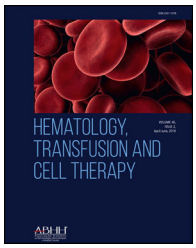

Images in Clinical Hematology

Chloroma — A rare sarcoma

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A 40-year-old man with a history of Human immunodeficiency virus (HIV) positive sorology non-adherent to treatment complaining of back pain and left leg pain despite the use of usual painkillers. A Computed tomography (CT) of the left leg was performed and identified lytic lesions. The blood tests revealed hemoglobin of 11,6 g/dL, White blood cells (WBC) 153.350/mm^3 with staggered deviation to promyelocytes, and platelets of 664.000/mm^3.

The radiograph shows a lytic lesion in proximal tibia (Figure 1A). CT reports hypoattenuating osteolytic images in the femur and tibia lateral condyles associated with cortical defect of the lateral tibia metaphysis (Figure 1B). The Magnetic resonance imaging (MRI) demonstrates a heterogeneous pattern of bone marrow with sparse focal areas - some with a nodular aspect (Figure 1C). The Positron Emission Tomography and Computed Tomography (PET-CT) indicates an important axial and appendicular skeleton metabolic activity along with a T5-L2 vertebrae lesion (Figure 1D). A bone marrow biopsy was performed, and the diagnosis of chronic myeloid leukemia was confirmed. Philadelphia chromosome and p210 BCR-ABL were positive. He has also undergone a biopsy of the vertebrae lesion with the diagnosis of chloroma (Figure 1E, F, G, and H). As the patient had never treated for his HIV infection, he started with Imatinib 400 mg and Highly active antiretroviral therapy (HAART) therapy daily.

Despite the short response with Imatinib and the improvement of the bone lesions, the patient progressed and developed acute myeloid leukemia. He has undergone chemotherapy with cytarabine and idarubicin (7 + 3). The patient has also been through three cycles of consolidation with high doses of cytarabine. He has too treated whith Dasatinib 140 mg per day, and later on, he has undergone a haploidentical peripheral stem cell transplantation, developed a severe gut graft-versus-host disease, and died on day 103 post-transplant.

Chloroma is a rare extramedullary tumor characterized by the occurrence of one or more tumor masses consisting of myeloblasts or immature myeloid cells that disrupt the normal architecture of the involved tissue and typically occurs concurrently with acute myeloid leukemia.[1] It can also occur in association with accelerated-phase chronic myeloid leukemia or myelodysplastic syndrome.[1–3]

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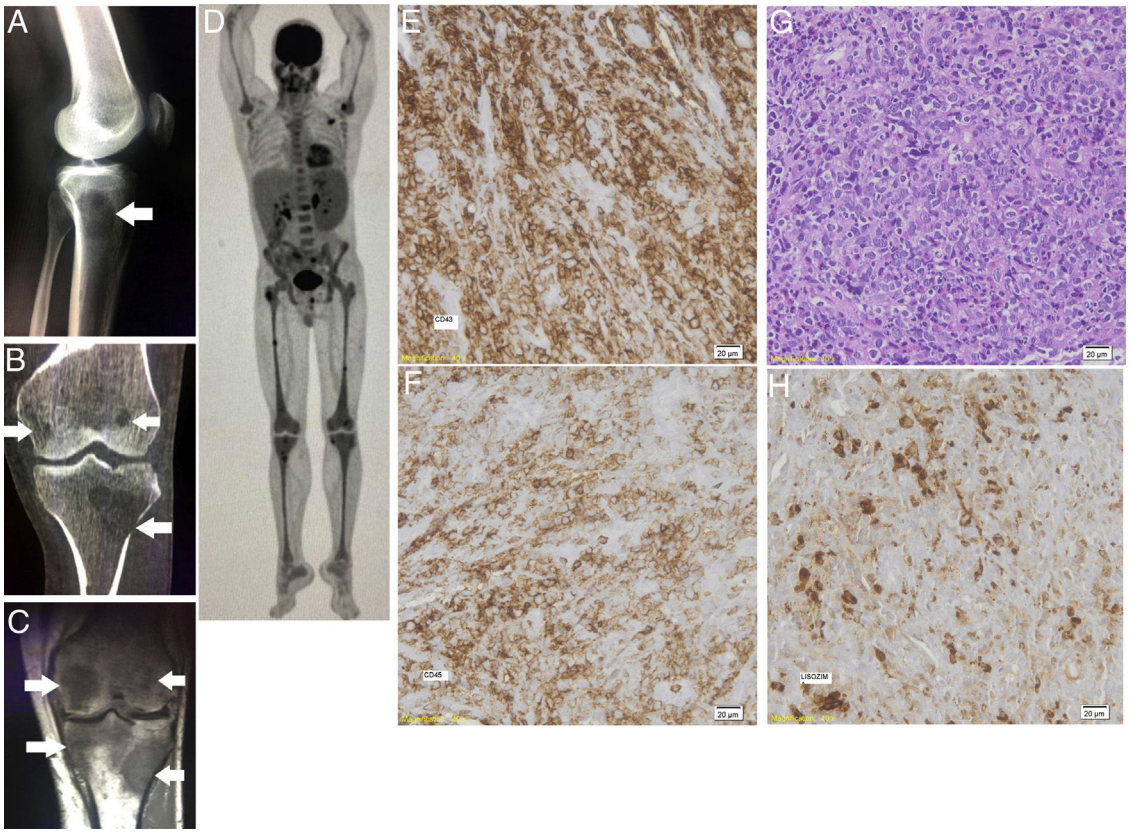

Figure 1 – (A) Radiography of the left knee showing a lytic lesion in the proximal tibia (white arrow). (B) CT of the left knee in the coronal section demonstrating multiple osteolytic images in the distal femur and proximal tibia, with a defect of the cortical of the lateral tibia metaphysis (white arrows). (C) MRI of the left knee in the coronal section in T1-weighted image sequence demonstrates a heterogeneous pattern of bone marrow with focal areas of sparse low signal, some with nodular aspect (white arrows). (D) PET-CT showing an important axial and appendicular skeleton metabolic activity along with a T5-L2 vertebrae lesion. Spleen, cervical, and axillary lymph nodes, also, shows metabolic activity. (E) Anatomopathological evaluation (40×) reports immunohistochemical positivity to CD43. (F) Anatomopathological evaluation (40×) reports immunohistochemical positivity to CD45 (leukocyte antigen). (G) Anatomopathological evaluation (hematoxylin and eosin; 40×) reports the proliferation of large cells, with blastoid characteristics. (H) Anatomopathological evaluation (40×) reports partial immunohistochemistry positivity to the lysozyme marker, of granular cytoplasmic pattern, compatible with myeloid origin.

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Conflict of interest

The authors declare no conflict of interest.

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