Disseminated MAC infection with marrow noncaseating granuloma

A 61-year-old woman with a remote history of renal transplant was admitted for evaluation of weakness and intermittent cough for the past 3 months and pulsating headache for 1 month. She had diarrhea for several years. She denied experiencing fever, night sweats, or weight loss. She was on tacrolimus/mycophenolate/prednisone and ciprofloxacin. She had diffuse lymphadenopathy/splenomegaly and a right lower pulmonary cavitary lesion. Her complete blood cell count illustrated the following: white blood cell count, 2.28 \times 10^9/L; neutrophils, 1.98 \times 10^9/L; hemoglobin level, 72 g/L; and platelets, 76 \times 10^9/L. A diagnosis of posttransplant lymphoproliferative disorder (PTLD) was suspected. Biopsy of the right cervical lymph node showed infiltrate of histiocytes with acid-fast positive bacilli. Marrow aspirate was reactive, with multiple foamy histiocytes (panel A inset; original magnification \times 60; May-Grünewald-Giemsa stain). Biopsy demonstrated multiple noncaseating granulomas (panel A; original magnification \times 40; hematoxylin and eosin stain) and abundant acid-fast positive bacilli within the histiocytes (panel B; original magnification \times 40; Ziehl-Neelsen stain). Morphology, flow cytometry, and immunohistochemistry ruled out PTLD. Cultures of blood, sputum, urine, stool, and marrow were positive for Mycobacterium avium complex (MAC). The patient developed bowel obstruction with pathological proven Mycobacterium ileocolitis and inflammatory pseudotumor. Viral testing, including HIV, was negative. A diagnosis of disseminated MAC infection was established based on the lymph node/marrow laboratory and clinical findings. The patient was treated with antimycobacterial therapy.

Marrow granuloma is an uncommon finding but can occur in post–renal transplant patients on immunosuppressive therapy with MAC infection.

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