IMAGES

Extensive Platelet Phagocytosis in a Patient with Immune Thrombocytopenia (ITP) and Concomitant Tuberculosis

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Hemophagocytic syndrome is characterized by benign proliferation of mature histiocytes and uncontrolled phagocytosis of the erythrocytes, leukocytes, platelets and/or their hematopoietic precursors in the bone marrow. Hemophagocytic syndrome can be familial or acquired which is associated with tuberculosis, autoimmune disorders, hematologic malignancies or solid cancers [1]. Although histiocytes in the bone marrow may show phagocytosis of any of the hematopoietic precursors, marked platelet specific phagocytosis is an extremely rare finding. Inhibitory CD47/(signal regulatory protein) SIRP alpha signaling is involved in regulating platelet phagocytosis in ITP [2]. We present a patient with ITP who had concomitant tuberculosis and showed predominant platelet phagocytosis. A 61 years old male with ITP on steroid therapy presented with fever and cough since 2 weeks. He had pallor with no petechiae or purpuric spots. Investigations showed hemoglobin of 102 g/l with normal white cell count and thrombocytopenia (platelets: $58 \times 10^9/l$). Bone marrow aspiration showed increase in histiocytes with many of them showing extensive platelet phagocytosis (Fig. 1). Occasional histiocytes also showed erythroblastic phagocytosis (Fig. 1, Inset). Trephine biopsy and clot section showed epithelioid cell granulomata (Fig. 2a, b). Ziehl–Neelsen stain for acid fast bacilli was positive. HRCT chest was suggestive of military tuberculosis. The

Fig. 1 Bone marrow aspirate smear showing extensive platelet phagocytosis by histiocytes. An occasional histiocyte also shows engulfment of erythroblasts [Inset]

Fig. 2 Trephine biopsy (a), and clot section (b) showing epithelioid cell granulomata

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patient was started on anti-tubercular treatment and was discharged in a stable condition.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was not taken as this is an image based report with no patient intervention specific to the study.

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