

## Reed Sternberg Cells in Bone Marrow Touch Imprints

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### Clinical Image

A 65-year-old male presented with weakness, weight loss, and recurrent fever for 14 months. Hemoglobin was 11.6 g/dL, with normal mean corpuscular volume, mean corpuscular hemoglobin. White blood cells were  $4.0 \times 10^9/L$  with a slight monocytosis and platelets were in normal range. Blood chemistry showed: lactate dehydrogenase 621 IU/L, total bilirubin 1.2 mg/dL, alkaline phosphatase 427 IU/L, and serum creatinine 0.6 mg/dL. No significant lymphadenopathy nor hepato-splenomegaly was found on clinical examination. Considering the persistence of symptoms a bone marrow aspirate and a trephine biopsy were done. Bone marrow aspirate was a dilute specimen, while touch imprint was cellular with trilineage hematopoiesis. Numerous Reed-Sternberg cells (R-S) were seen in touch imprints (Figure 1, panels A-B). These were large cells having abundant basophilic cytoplasm, bilobed nuclei with eosinophilic nucleoli (marked by arrow). Bone trephine was hyperplastic with diffuse infiltration by inflammatory and R-S cells (Figure 1, panel C) strongly expressing CD 15 and CD30 (Figure 1, panel D). The patient is currently on chemotherapy and is improving clinically.

Bone marrow infiltration is observed in only 5% to 15% of patients with Hodgkin disease. The presence of R-S cells in bone marrow is required for primary diagnosis of lymphoma. This may not be the case if marrow is done for staging purposes. However, careful examination

of touch imprints of bone marrow itself can be diagnostic and helpful in the management of the patient.

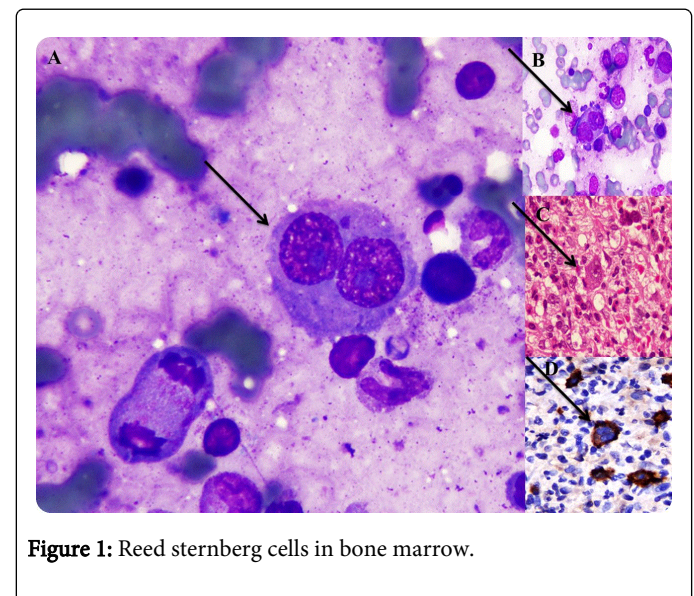


Figure 1: Reed sternberg cells in bone marrow.

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