

Images in Clinical Hematology

Massive bone marrow infiltration by *Streptococcus pyogenes* during severe community pneumonia



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A previously healthy 7-month-old boy was referred for fever and abdominal distension which had started 3 days previously. At admission, the patient had a compromised clinical condition and signs of severe sepsis. His abdomen was distended, presenting marked hepatosplenomegaly. The laboratory investigation revealed anemia (Hb 7.6 g/dL), a leukocyte count of $3.86 \times 10^9/L$ (77% neutrophils, 15% lymphocytes),

severe thrombocytopenia ($29 \times 10^9/L$), and an elevated C-reactive protein (390 mg/L). Community pneumonia was confirmed after a chest X-ray analysis.

Due to hepatosplenomegaly and cytopenias, a bone marrow sample was analyzed and the results revealed intense infiltration by gram-positive bacteria arranged in chains, free in the smear and in the cytoplasm of neutrophils and

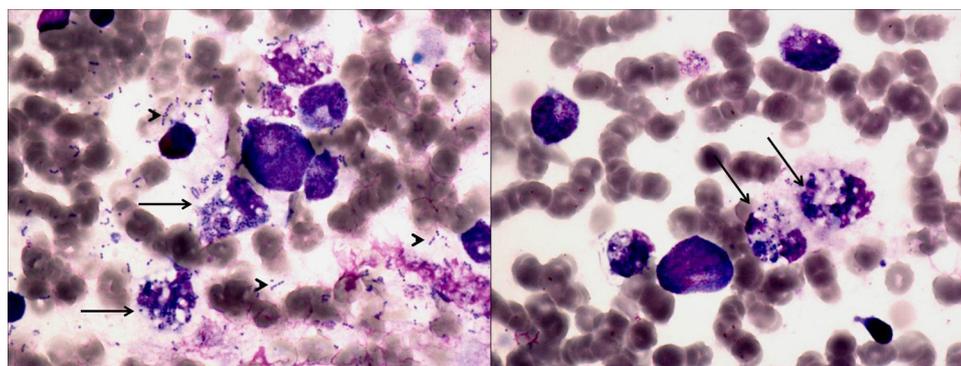


Figure 1 – Bacteria free in the bone marrow smear (arrowhead) and in the cytoplasm of macrophages (arrow). Leishman stain. Magnification 1000 \times .

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macrophages (Figure 1).^{1,2} Blood and pleural effusion cultures revealed the rapid growth of *Streptococcus pyogenes* colonies.

Conflicts of interest

The authors declare no conflicts of interest.

REFERENCES

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1. Jha A, Adhikari RC, Sarda R. Bone marrow evaluation in patients with fever of unknown origin. *J Pathol Nepal.* 2012;2(3):231–40.
 2. Weinzierl EP, Arber DA. The differential diagnosis and bone marrow evaluation of new-onset pancytopenia. *Am J Clin Pathol.* 2013;139(1):9–29.