



# Erythroblastopenia in a critically ill influenza patient

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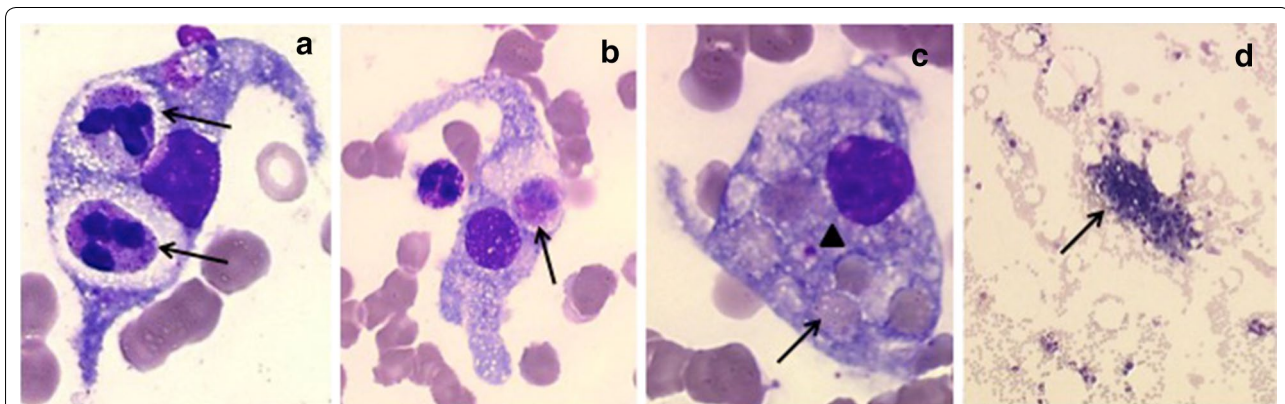
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A 46-year-old woman, with no known underlying medical conditions, was admitted for a septic shock with acute respiratory distress syndrome. Influenza A non-H1N1 virus infection was confirmed by PCR on a respiratory sample with a high suspicion of bacterial co-infection despite negative bacterial culture.

Laboratory tests revealed microcytic anemia (8 g/dl, mean cell volume 70 fl) and profound thrombopenia (13 G/L). Reticulocyte count was down to 5 G/L. No hemolysis was observed (total bilirubin 10 µmol/l, haptoglobin 2.52 g/l, lactate dehydrogenase 347 IU/L). Fibrinogen concentration was 7.13 g/l. Triglyceride level

was 10.48 mmol/L. Despite iron deficiency (iron concentration 1 µmol/L, total iron binding capacity 37 µmol/L, transferrin saturation coefficient 3%), ferritin concentration was unexpectedly in the normal range (169 µg/L).

A myelogram revealed an erythroblastopenia (2% of erythroblast) and a hemophagocytic syndrome (Fig. 1). Parvovirus B19 PCR was negative. No other cause than flu infection was suspected. All PCR tests for respiratory viruses or intracellular bacteria were negative. She received a 7-day course of oseltamivir, cefotaxime, and spiramycin and recovered within 10 days. The platelet count and hemoglobin normalized within 8 and 34 days, respectively.



**Fig. 1** Bone marrow aspirate showing hemophagocytosis and increased histiocytes. **a–d** May–Grünwald–Giemsa (MGG) stain; **a–c** × 1000, **d** × 100. **a, b** MGG stain of bone marrow showing histiocytes phagocytizing neutrophils (*arrows*). **c** MGG stain of bone marrow illustrating macrophages with erythrocytes and platelets (*arrowhead*). **d** MGG stain shows increased histiocytes and erythroblastopenia

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To our knowledge, this is the first reported case of erythroblastopenia and hemophagocytic syndrome related to influenza virus infection.

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**Compliance with ethical standards****Conflicts of interest**

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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