Received: 6 July 2022 | Accepted: 9 July 2022

DOI: 10.1002/ajh.26660

An unexpected finding during microscopy for urinary hemosiderin

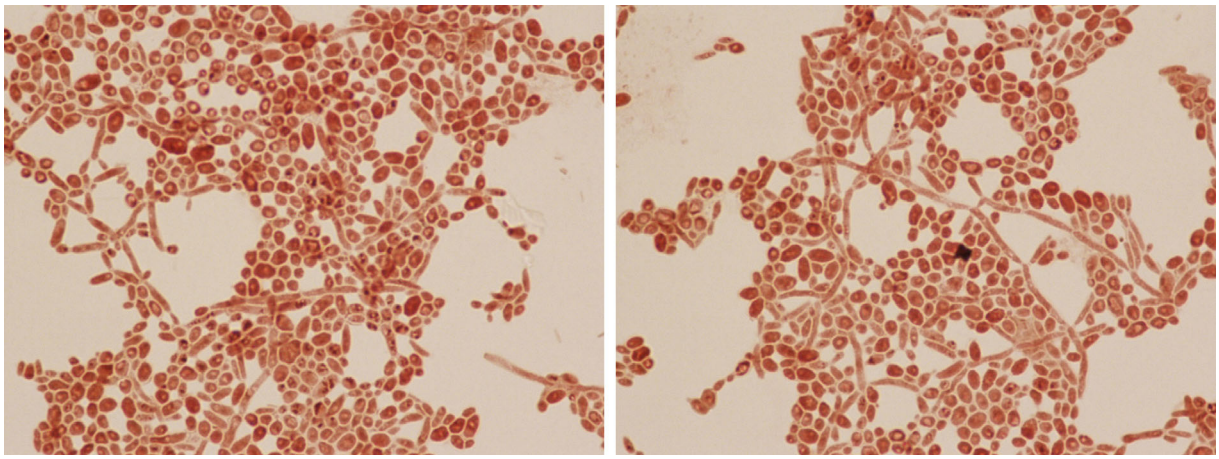
Nehal Joshi[1] | Ketan Patel[2] | Maria Angeles[1] | Daniel Pelling[1] | Barbara J. Bain[1,3]

[1]Blood Sciences, Imperial College Healthcare NHS Trust, St Mary's Hospital, London, UK

[2]Hillingdon Hospital NHS Foundation Trust, Uxbridge, UK

[3]Centre for Haematology, St Mary's Hospital Campus of Imperial College Faculty of Medicine, St Mary's Hospital, London, UK

Correspondence
Barbara J. Bain, Blood Sciences, St Mary's Hospital, Praed Street, London, W2 1NY, UK.
Email: b.bain@imperial.ac.uk



A 59-year-old woman was admitted to intensive care after suffering a community cardiac arrest with ventricular fibrillation and 12 min downtime. She had a background of poorly controlled type 1 diabetes and severe chronic bilateral leg ulcers. A blood count showed hemoglobin concentration 85 g/L, mean cell volume 85.8 fL, red cell distribution width (RDW) 18.3% (normal range 10%–16%), and reticulocytes 117 $\times$ 10^9/L; the platelet count and total and differential white cell counts were normal. A blood film showed anisopoikilocytosis, with elliptocytes, polychromasia, vacuolation of neutrophils, and reactive lymphocytes. A direct antiglobulin test was positive (2+) for immunoglobulin G. Lactate dehydrogenase was mildly increased, but bilirubin was normal. C-reactive protein was greatly increased at 197 mg/L. Microbiological cultures from the ulcers identified *Staphylococcus aureus* and *Citrobacter koseri*. These organisms were thought to have caused overwhelming sepsis leading to cardiac arrest.

A Perls stain for urinary hemosiderin was performed as part of investigation for suspected hemolysis. Unexpectedly, microscopy identified a partly filamentous microorganism with some budding yeast forms, which had been stained with the counterstain (images, $\times$100 objective). The presence of fungi was reported to clinical staff for further investigation and treatment.

Laboratories performing microscopy on blood, bone marrow, or urine should be alert to unexpected findings that may alter clinical management. Often this is the unanticipated presence of a microorganism—a bacterium, a fungus, or a parasite.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

ORCID

Barbara J. Bain https://orcid.org/0000-0003-3077-4579

How to cite this article: Joshi N, Patel K, Angeles M, Pelling D, Bain BJ. An unexpected finding during microscopy for urinary hemosiderin. *Am J Hematol*. 2022;97(12):1652-1653. doi:10.1002/ajh.26660