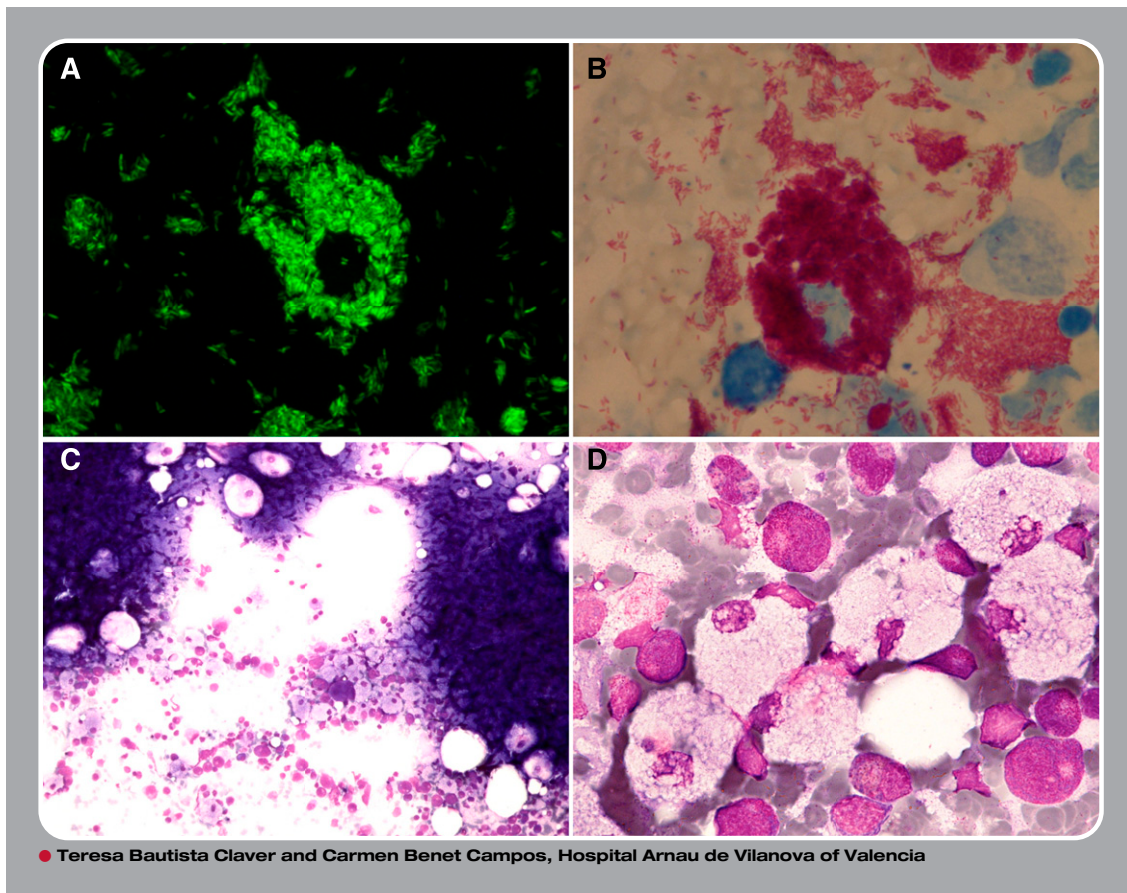


## Countless mycobacteria inside a macrophage



**A** 48-year-old HIV-positive male with a CD4 count of 100 cells per  $\text{mm}^3$  was admitted to the hospital for fever and dysphagia. Physical examination when he arrived in the emergency department revealed painful splenomegaly. Complementary examinations involving the rest of systems were normal.

His blood count showed a hemoglobin level of 100 g/L, white cell count of  $2900/\text{mm}^3$ , lymphocytes  $1000/\text{mm}^3$ , and platelets  $87\,000/\text{mm}^3$ . Pancytopenia and fever in an immunocompromised patient made us suspect an opportunistic infection as a possible etiology. Routine blood cultures were performed for recovery of aerobic and anaerobic bacteria, which turned out to be positive for *Streptococcus pneumoniae*. Upper gastrointestinal endoscopy showed esophageal candidiasis. A bone marrow aspirate was performed. The smears were air-dried and stained with auramine (panel A), Ziehl-Neelsen (panel B), and Giemsa (panels C-D) stains. The smears stained with Giemsa stain showed innumerable macrophages filled with cytoplasmic structures that the Ziehl-Neelsen and auramine stains revealed as acid-fast bacilli. Simultaneously, the bone marrow aspirate was cultured for bacteria, fungi, and mycobacteria. The culture was positive for mycobacteria. DNA identification by polymerase chain reaction indicated the presence of *Mycobacterium avium* complex. Unfortunately, the patient died before starting a treatment.