An HIV-positive 39-year-old man presented with generalised nodular lesions. He was apyrexial and normotensive, with a normal respiratory rate. The rest of the examination was normal. He had been on antiretroviral therapy for >4 years; most importantly, he was on a second-line regimen (lopinavir/ritonavir (Aluvia) based). The appearance of the lesions, together with the history, led to the following possible diagnoses: bacillary angiomatosis, cutaneous cryptococcosis, nodular Kaposi sarcoma or cutaneous histoplasmosis.

Investigations revealed the following:
- absolute CD4 count: 15 × 10^6/L (500 - 2 010)
- HIV viral load: 1 764 copies/mL
- blood cultures: aerobic and anaerobic – negative
- full blood count: normocytic anaemia, with haemoglobin: 8 g/dL (14.3 - 18.3)
- urea and electrolytes: normal
- liver function test: normal
- calcium, magnesium and phosphate: normal
- urine microscopy culture and sensitivity: negative
- sputum for GeneXpert for tuberculosis: negative
- bone marrow trephine biopsy: multifactorial cause of anaemia, no obvious infiltrates
- skin biopsy – vascular proliferative lesions in keeping with Bartonella, substantiated by a polymerase chain reaction (PCR)
- tissue culture: no growth
- chest radiography: normal.

A diagnosis of bacillary angiomatosis is clinical and can be confirmed by serology, blood culture and histology. It is difficult to culture Bartonella; serology cannot differentiate between species. Warthin-Starry silver staining is the gold standard for diagnosis, revealing clusters of bacilli. Vascular proliferative lesions are typical histological features. In our case, however, Warthin-Starry silver staining did not reveal the bacilli; therefore, tissue was sent for PCR testing, which confirmed the diagnosis. Nested PCR yielded 19 positive results from 188 specimens from HIV-positive patients. After being treated with erythromycin and rifampicin for 1 month, our patient’s lesions regressed.

**Discussion**

There are >30 different species of Bartonella of which 13 have been isolated in humans. Bartonella species are fastidious, facultative, intracellular, slow-growing Gram-negative bacteria that cause a broad spectrum of diseases in humans. The two most commonly associated with HIV are B. quintana and B. henselae. Transmission of Bartonella to humans occurs via a cat scratch that is contaminated with Bartonella-infected fleas. The prevalence of Bartonella in HIV-positive persons is reported to be very low.
Various organs or systems may be involved in *Bartonella* infection, ranging from skin, subcutaneous tissue, bones, mucosa, central nervous system, lymph nodes, liver and spleen. Unspecific manifestations, such as bacteraemia, endocarditis and unexplained fever, have also been reported.

References