

ABSTRACT

Bovine tuberculosis is an important zoonosis and accurate diagnosis is important for its surveillance. Post-mortem diagnosis may, however, be compromised by lesions caused by other pathogens. In an investigation on its prevalence in slaughter cattle in Kenya, *Mycobacterium bovis* and dimorphic fungi were inadvertently identified separately or concurrently in tuberculous lesions. Beef carcasses were inspected for lesions in two abattoirs in Nairobi. Tissues with lesions were collected and transported to the laboratory. Smears of lesions were stained by acid-fast procedure and examined microscopically. Lesions were cultured in Löwenstein-Jensen (LJ) and in BBL™ *Mycobacterium* growth indicator tubes (MGIT) media. *Mycobacteria* isolates in LJ medium were identified by DNA typing. Smears of BBL™ MGIT cultures were acid-fast stained and examined microscopically. Tissue sections were stained with periodic acid-Schiff reagent before examination. Of the 929 carcasses examined, 176 had granulomatous lesions. Dimorphic fungi were detected as acid-fast negative cells in 58 (32.9; 33.5%) of the lesion smears, either alone (29.0; 16.4%) or concurrently with acid-fast bacilli (29.0; 16.4%). The fungi were also detected in some BBL™ MGIT-culture smears and lesioned tissue sections. The fungi were identified, by means of cellular morphology, as *Paracoccidioides brasiliensis* and *Blastomyces dermatitidis*. A total of 64 isolates of *Mycobacteria* were recovered in LJ medium, 19 of which were identified as *M. bovis*. The present report documents native *P. brasiliensis* infections outside the presumed endemic region and *B. dermatitidis* infections in a livestock animal. The findings further indicate the importance of dimorphic fungi as a differential diagnosis of bovine tuberculosis in the region.