A CASE OF AN INFECTED ILLIAC ANEURYSM CAUSED BY CANDIDA PARAPSILOSIS - A 'TRUE' MYCOTIC ANEURYSM
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LEARNING OBJECTIVES: 1) To describe risk factors for mycotic aneurysms. 2) To recognize current epidemiology of invasive candidiasis. 3) To assess treatment of Candida parapsilosis infections.

CASE INFORMATION: A 71 year-old man presented with fever and lethargy for 2 days. Physical exam was remarkable for a temperature to 38.6°C. Admission laboratory studies revealed leukocytosis, evidence of acute on chronic renal failure, and a urine culture positive for Escherichia coli. Fevers continued unexplained despite treatment for the urinary tract infection. A serendipitous abdominal CT scan revealed a large saccular aneurysm of the left common iliac artery with surrounding inflammatory changes consistent with a mycotic aneurysm. The patient underwent surgical resection and started empiric antimicrobials including daptomycin, ciprofloxacin, and fluconazole. Antifungal treatment was changed to caspofungin when yeast forms were identified from the operative cultures. Subsequent culture and sensitivity data showed Candida parapsilosis with a higher than expected minimum inhibitory concentration (MIC) to caspofungin. Antifungal treatment continued with caspofungin as some overall improvement occurred. Ultimately, however, the patient developed septic shock and expired after many weeks of intensive care.

DISCUSSION: Infected or 'mycotic' aneurysms are a rare cause of fever of unknown origin (FUO). Despite its name, bacteria cause the vast majority of mycotic aneurysms while fungal sources are isolated in only 1-2% of cases. Arterial trauma resulting from atherosclerosis, intravenous drug use, or vascular manipulations represent risk factors. This patient had no identified risks or positive blood cultures, yet Candida parapsilosis was isolated from the operative cultures of the resected aneurysm. Candida spp. are the fourth most common cause of bloodstream infections according to National Nosocomial Infections Surveillance (NNIS) data. Invasive candidiasis is associated with central venous catheters, parenteral nutrition, use of broad-spectrum antibiotics and immunosuppressive medications. Reports suggest that caspofungin, an echinocandin, is as effective as amphotericin B in the treatment of invasive candidiasis. While in vitro studies show higher MICs of echinocandins in the treatment C. parapsilosis compared to other Candida spp., there is limited data to suggest that in vitro susceptibilities may not correlate strongly with the clinical outcomes of echinocandin therapy.