Aortobifemoral bypass graft infection with *candida tropicalis*

Rabea Shehadi, Ayelet Raz-Pasteur

**CASE REPORT**

A 77-year-old female patient was admitted to the internal medicine department due to high fever. Her medical history included hypertension, hyperlipidemia, Type 2 diabetes, but more importantly severe peripheral artery disease affecting blood flow to her left femoral artery, and necessitating an aortobifemoral bypass surgery. She had undergone a bypass surgery a month prior to her admission. Fever workup including chest X-ray, blood and urine cultures were negative for bacterial pathogens. She was treated with empiric antibiotic therapy (Ceftriaxone), until 10 days after her admission, one of the blood cultures (from a total of four blood culture sets) that were previously drawn was positive for *candida tropicalis*. In hopes of unveiling a focus for this candidemia, she had undergone an abdominal CT, which demonstrated surprising results. Close proximity between the synthetic aortic graft and the third part of the duodenum, was established on CT scan. The border between the two structures was poorly defined. The patient was referred to gastroscopy, during which the following findings were demonstrated, as shown in Figure 1. The synthetic aortic graft had fistulated and is seen inside the duodenal lumen. The patient later underwent a successful multidisciplinary surgery including general surgeons and vascular surgeons, the involved duodenal wall was primarily sutured and the aortobifemoral bypass was replaced with a silver-coated bypass. One week after her surgery she was released home in generally good condition.

**DISCUSSION**

Vascular grafts are frequently used in the treatment of peripheral vascular disease when blood supply to the lower limbs is at risk and conventional noninvasive medical treatments fail. Synthetic grafts include polytetrafluoroethylene (Teflon) and polyethylene terephthalate (Dacron). Acute complications of vascular grafts include acute graft occlusion (2.9% aortofemoral, 10.4% femoropopliteal, and 25.3% femorotibial grafts), whereas late complications are more rare and include vascular graft infection (2-6%), pseudoaneurysm formation and enteric fistulas to small or large intestine (1–2%). *Staphylococcus aureus* is the predominant microorganism involved in graft infection including Methicillin Resistant *Staph Aureus* (MRSA), other causative agents include *Candida* species and...
Pseudomonas Aeruginosa [1, 2]. Reports of vascular graft infection by the fungal species are anecdotal, only 13 reported cases can be found in the literature over a 20 year period from 1966 to 1986, Candida is involved in 8 of those cases, Aspergillus in 4 cases, and Mucor in one case [3].

There are numerous clinical presentations of Candida Tropicalis infection, most frequent oral candidiasis, arthritis and spondylodiscitis, in medical literature review only two other cases of candidiatropicalis vascular graft infection have been reported [3–5].

CONCLUSION

There have been very few reports of vascular graft infection by fungal species, and even fewer by a candida species. In this publication we present a very rare case of a vascular graft infection with candida tropicalis candidemia complicated with duodenal fistula. In a patient with a vascular graft, candidemia warrants a deferential diagnosis of a graft infection.

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Conflict of Interest
Authors declares no conflict of interest.

Data Availability
All relevant data are within the paper and its Supporting Information files.

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