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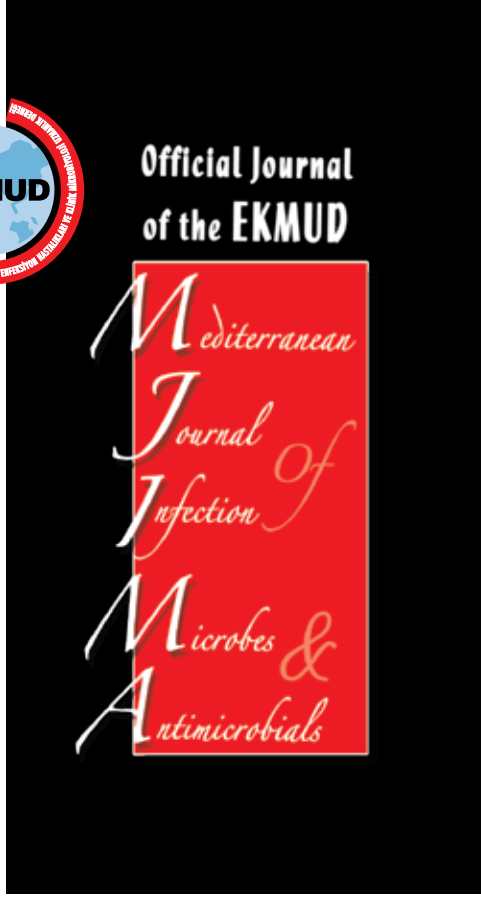

Peripheral Candidal Suppurative Thrombophlebitis Successfully Treated with Caspofungin in a Bariatric Surgery Patient

Bir Bariatrik Cerrahi Hastasında Gelişen Periferal Kandidal Süpüratif Trombofilebitin Kaspofungin ile Başarılı Tedavisi

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Infections may develop sometimes due to catheters used for intravenous fluid treatment and hemodynamic monitorization. Generally this situation can be treated by withdrawal of catheters and antibiotics. Severe complications like infective endocarditis, suppurative thrombophlebitis and metastatic infections may also be encountered[1].

Barbut et al. reported in their study, which was conducted about peripheral venous catheter induced complications, that at least two of the signs (tenderness on venous trace, erythema, swelling or induration) should be present. In this present study, the most frequently isolated agents were coagulase-negative staphylococci (88.1%), *Staphylococcus aureus* (7.1%) and *Candida* spp. (4.8%)[2]. Frequency of fungal infections due to *Candida* species is very low. However, in recent times candida infection rates are increased especially in intensive care unit patients[3].

Forty-five years old male patient, who had bariatric surgery with two years diabetes mellitus history and could not tolerate oral nutrition, received intravenous total parenteral nutrition (Kabiven peripheral) peripherally. On the 5th day of the treatment, blood samples for culture are drawn, wide spectrum antibiotic treatment is initiated and place of the catheter is changed as there were 38.6°C fever, pain, erythema and increased

heat starting at the entering point of catheter into the left arm cephalic vein along the venous trace. On the 3rd day of antibiotic treatment, as there was abscess formation and purulent discharge at the entering point of catheter, the abscess was drained and samples were sent for the culture. Mean while, thrombophlebitis signs were detected at the new catheterization region after the abscess formation was observed. The place of catheter was changed again, and then abscess was drained and samples were taken for culture. Since *C. albicans* growth was observed in blood and drainage cultures, the antibacterial treatment was discontinued and IV caspofungin therapy was initiated. As abdominal examination was within normal limits in the patient, computerized tomography was performed to search intraabdominal infection and the results were within normal limits. As the clinical signs were improved after 48 hours of therapy, the patient was discharged after 14-day antibiotic treatment. The patient was followed up for two weeks after the therapy completed.

Hong et al. reported a suppurative thrombophlebitis of the left antecubital vein due to *C. albicans* in an intensive care patient who was internalized after an intraabdominal surgery. The affected vein was excised and 1 mg/kg of amphotericin B was received for three weeks. Metastatic fungal infections have also developed after fungemia in the patient, so it has been recommended that patients should also be monitorized for this issue[4]. Walsh et al. suggested in their study that segmental venous resection and intravenous amphotericin B should be used in the treatment of peripheral suppurative candida thrombophlebitis[5]. In our patient, metastatic fungal infections were not observed and treatment was performed with intravenous caspofungin without segmental venous resection.

Suppurative thrombophlebitis is a severe complication, which develops in 7% of patients with intravenous catheter infection and if untreated, it may end up in death[1]. Risk factors of nosocomial *Candida* infections and *Candida* thrombophlebitis are similar. These are previous use of multiple antibiotics, receiving total parenteral nutrition, previous abdominal surgery, steroid use and immune compromisation. Moreover, increased number of *Candida* spp. in the gastrointestinal system due to long-term antibiotic treatment may colonize on intravenous devices[6].

In case of candidemia development, thrombophlebitis should be investigated for the infectious focus in patients, who receive especially lipid containing solutions through intravenous catheters in the postoperative phase. Otherwise, complications like persistent fungemia, septic shock and metastatic fungal infections may develop.

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