Necrotizing Fungal Infection Following Penile Prosthesis Implantation: A Case Report

Penile prosthesis implantation is an important treatment option for severe erectile dysfunction (1). In spite of increased experience of surgeons and advances in implant technology, prosthesis-derived infection remains as a serious adverse event (2). We present a 50-year-old male patient who had necrotizing fungal infection after penile prosthesis implantation caused by Trichosporon asahii.

Keywords: Fungi, infection, necrosis, penile prosthesis, Trichosporon asahii

The patient underwent malleable penile prosthesis implantation (Coloplast®, Minneapolis, USA) via penoscrotal approach under perioperative vancomycin and gentamycin prophylaxis. The patient was discharged on postoperative 1st day uneventfully.

At the postoperative 10th day, the patient applied to our outpatient clinic with severe penile pain and hyperaemia in the incision line. Oral cefuroxime axetil 500 mg twice daily and dextroketoprofen 50 mg once a day were initiated. However, ecchymosis and severe oedema occurred in the next 48 hours even after the oral treatment (Figure 1). Considering prosthesis-related infection, the patient was hospitalized and the prosthesis was removed same day. Tissue and drainage samples were obtained for antimicrobial culture study. As a "Trichosporon asahii" fungus was isolated in the culture, systemic antifungal (fluconazole 100 mg, twice a day) treatment was added. As patchy necrotic areas were observed at the glans penis, hyperbaric oxygen therapy was administered, however, necrosis spread despite antimicrobial and hyperbaric oxygen therapy.
treatment. In 72 hours, the ischemia and necrosis increased till the base dominantly on the dorsal skin of the penis. The patient underwent penile amputation surgery.

All humans are colonized as a commensal interaction with yeast and their virulence is related to the deterioration of host defense. The most common conditions for Candida proliferation include immunocompromised states, diabetes mellitus, antibiotic overuse, indwelling devices, and intravenous drug use (8,9).

Trichosporon asahii and other members of the genus Trichosporon are basidiomycetous yeasts defined by the structure of true hyphae and pseudohyphae, arthroconidia, and blastoconidia (10). They have been isolated from soil and other environmental sources and from enclosed surfaces. In addition, they may be a part of the normal flora of the human skin, gastrointestinal tract and respiratory system (11).

An ideal treatment for Trichosporonosis has not yet been clearly defined (12). It has been recommended that antifungal drug resistance and high mortality rates seen in severe Trichosporonosis may be accomplished by the combination of two classes of antifungals (amphotericin B and fluconazole) (10). However, even after prompt and forceful antimicrobial treatment, it may not be sufficient to avoid catastrophic situations like local tissue necrosis leading to amputation.

Although a significant decrease in infectious complications has been accomplished in penile prosthesis surgery, these complications may still cause catastrophic outcomes. Although fungal infections are rarely seen after penile prosthesis implantations, surgeons must consider antifungal therapy if post-surgical infection does not ameliorate with antibiotic treatments, especially in patients with the poor host defense mechanisms.

Ethics

Informed Consent: Written informed consent was obtained from the presented case.

Peer-review: Externally peer-reviewed.

Authorship Contributions


Conflict of Interest: No conflict of interest was declared by the authors.

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References


