A delayed diagnosis of Fournier's gangrene

Geç tanı alan bir Fournier gangreni

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Dear editor,

Fournier's gangrene (FG) is a specific necrotising fasciitis localized to the external genital organs and to the perianal region. It leads to gangrene in the skin and subcutaneous tissue. It is a disease that can lead to serious intoxication and multiple organ failure.[1] Urgent surgical approach and broad-spectrum antibiotics are used in the treatment of FG. Early diagnosis and treatment are life-saving.[2] Here, a 60-year-old male patient with FG whose diagnosis and treatment were delayed and to whom applied reconstructive surgery and antibiotherapy with emergency surgery was discussed.

A 60-year-old male patient was evaluated in the emergency room due to the pain, wound and color change that developed and increased in the genital area for two weeks. The general condition was good, except that the patient had severe pain. He had no fever. Blood pressure and pulse rate were within normal ranges. Fasting blood glucose was high. The patient had a history of oral antidiabetic use due to Type 2 Diabetes Mellitus (DM). It has been learned that he has been using topical fusidic acid cream for 10 days. On examination, necrotic plaques on the scrotum and penis dorsum, as well as erosion on the glans penis, and superficial ulcers and purulent discharge were observed (Fig. 1). Laboratory values revealed leukocytosis (18000/μL) and high C-reactive protein level (10 mg/dL). Broad-spectrum antibiotherapy was started with the diagnosis of Fournier's gangrene. Glucose regulation was made. Emergency surgical debridement was performed by urology. The patient who had no problem in follow-up was discharged. We have received written consent from the patient that the his photograph taken can be used in scientific publication.

FG occurs with diffuse necrosis in skin, subcutaneous adipose tissue, fascia and sometimes muscles. It is generally seen in people with suppressed immune system, diabetes, obesity and malignant diseases. It is a disease with serious complications, progressing rapidly and progressing with high mortality. It carries a high risk of death up to 90% due to the development of septic shock as a result of treatment delay and associated complications.[1] The disease is 10 times more common in men than in women. The average age of occurrence is 50.9.[2] The disease often occurs due to infectious processes of the urogenital system,

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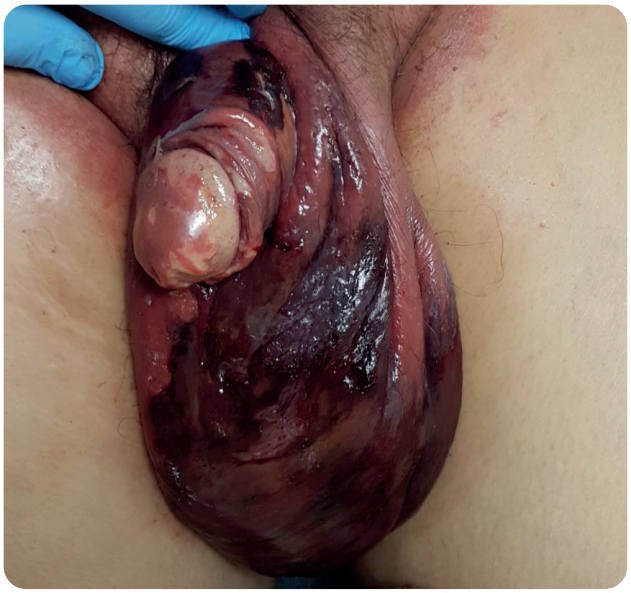

Fig. 1. Necrotic plaques on the scrotum and penis dorsum are seen

anorectal region or genital organs. Local skin infections cause the majority of cases in developing countries.[3] The most isolated bacteria in intraoperative cultures are *Eschericia coli, Streptococci, Staphylococci and Proteus*.[4] Conditions such as DM, chronic alcoholism, obesity, cancer, poor hygiene, intravenous drug use, immunosuppressive treatments, malnutrition, vascular diseases, and presence of paraplegia increase the risk of the disease.[4,5] Our patient was obese and had DM. There was no history of alcohol and smoking.

Kincius et al. reported that FG is mostly seen in DM patients and the most common cause of FG is polymicrobial infection. The dominant bacteria observed was reported as Proteus mirabilis.[6] Musayebi et al. described FG in a newborn with acute myeloid leukemia.[7] Sheehy et al. reported that the cause of FG was acute pancreatitis in one case.[8] Wanis et al. reported FG in a young immunocompetant patient who developed late perforated appendicitis.[9] Obi et al. have identified idiopathic cases who developed FG in the penis. However, they noted that the reason for this could be penis traumas due to oral sex and infections of the urogenital system.[10] Bacteremia is considered to be the most important cause in FG pathogenesis. Diffuse microthrombosis in the vessels supplying the fascia and activation of coagulation cascade develop. In addition, endothelial damage contributes to ischemic necrosis of the fascia.[10] The most common symptoms are localized pain and edema. Other findings are erythema, crepitation, skin necrosis, foul odor and purulent discharge.[4-6] In the differential diagnosis, erysipelas and cellulitis, gangrenous balanitis and gangrenous vulvitis, inguinal lymphogranulomatosis, soft chancre, acute genital ulcers, fix drug drug reactions, syphilis should be considered.[1] The prognosis of FG is serious and may progress with mortality. It requires urgent surgical intervention. Besides being clinically diagnosed, radiography, ultrasonographic imaging, computed tomography and magnetic resonance imaging may be used for diagnosis. In laboratory findings, usually leukocytosis or sometimes leukopenia, anemia, lymphopenia can be seen. Early surgical debridement with broad-spectrum antibiotics is important in the treatment of FG. There are cases where hyperbaric oxygen therapy is performed in the literature, but its role is controversial.[1,5] Our patient underwent broad-spectrum antibiotics and surgical intervention and reconstructive surgery.

As a result, a serious progressive case with a delayed diagnosis is discussed here. Early recognition of the disease is vital. Therefore, recognition of the disease by clinicians is important. This case has been discussed with the aim of raising awareness among physicians because the disease is very rare and has a serious course.

References

1. Chernyadyev SA, Ufimtseva MA, Vishnevskaya IF, et al. Fournier's Gangrene: literature review and clinical cases. Urol Int 2018;101:91-97.
2. Prohorov AV. Furnier's gangrene. Kazan Med J 2016;97:256-61.
3. Eke N, Echem RC, Elenwo SN. Fournier's gangrene in Nigeria: a review of 21 consecutive patients. Int Surg 2000;85:77-81.
4. Morpurgo E, Galandiuk S. Fournier's gangrene. Surg Clin North Am 2002;82:1213-24.

5. Onder CE, Gursoy K, Kuskonmaz SM, Kocer U, Culha C. Fournier's gangrene in a patient on dapagliflozin treatment for type 2 diabetes. J Diabetes 2019;11:348-50.
6. Kincius M, Telksnys T, Trumbeckas D, Jievaltas M, Milonas D. Evaluation of LRINEC scale feasibility for predicting outcomes of Fournier gangrene. Surg Infect (Larchmt) 2016;17:448-53.
7. Mosayebi Z, Omidian A, Movahedian AH, Kompani F, Hosseininodeh SS. Fournier's gangrene in a neonate with acute myeloid leukemia: a case report. Iran J Pediatr 2016;26:e4537.
8. Sheehy SA, Kelly ME, Francis EC, Sweeney KJ, Hussey A. A rare case of Fournier's gangrene. J Surg Case Rep 2016;5:1-3.
9. Wanis M, Nafie S, Mellon JK. A case of Fournier's gangrene in a young immunocompetent male patient resulting from a delayed diagnosis of appendicitis. J Surg Case Rep 2016;rjw058.
10. Obi AO. Isolated Fournier's gangrene of the penis. Niger J Clin Pract 2016;19:426-30.