Fournierjeva gangrena pri ženski bolnici: prikaz primera

Fournier's Gangrene in a Female Patient: a Case Report

Avtor / Author

Nadja Novak Skodič[1], Tomislav Magdalenič[2], Gregor Petrun[3], Timea Hebar[3], Iztok Takač[1,4]

Ustanova / Institute

[1]Univerzitetni klinični center Maribor, Klinika za ginekologijo in perinatologijo, Maribor, Slovenija; [2]Univerzitetni klinični center Maribor, Klinika za kirurgijo, Klinični oddelek za abdominalno in splošno kirurgijo, Maribor, Slovenija; [3]Univerzitetni klinični center Maribor, Radiološki oddelek, Maribor, Slovenija; [4]Univerza v Mariboru, Medicinska fakulteta, Maribor, Slovenija;

[1]University Medical Centre Maribor, University Division of Gynecology and Perinatology, Maribor, Slovenia; [2]University Medical Centre Maribor, University Division of Surgery, University Department of Abdominal and General Surgery, Maribor, Slovenia; [3]University Medical Centre Maribor, Department of Radiology, Maribor, Slovenia; [4]University of Maribor, Faculty of Medicine, Maribor, Slovenia;

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Nadja Novak Skodič dr. med., University Medical Centre Maribor, Department of Gynaecology and Perinatology, nadja998@gmail.com

Izvleček

Namen: *Fournierjeva gangrena (FG) je redka, življenje ogrožujoča oblika nekrotizirajočega fasciitisa, ki se pojavi na spolovilu, perinealnem in perianalnem predelu. Pri ženskah ugotavljamo bistveno višjo stopnjo umrljivosti zaradi anatomskih razlik in večje dovzetnosti za peritonitis in retroperitonitis. Pogosti dejavniki tveganja vključujejo sladkorno bolezen, zlorabo substanc, jetrno odpoved in imunosupresijo (1–4).*

Prikaz primera: *73-letna gospa je bila pripeljana v urgentni center zaradi kolapsa, tahikardije in atrijske fibrilacije. Ob pregledu so ugotovili, da je bila gospa isti dan že obravnavana pri izbranem ginekologu zaradi otečenih, pordelih in bolečih levih*

Abstract

Aim: *Fournier's gangrene is a rare life-threatening form of necrotizing fasciitis that affects the genital, perineal and perianal regions. A significantly higher mortality rate occurs in females due to anatomic differences and greater susceptibility to peritonitis and retroperitonitis. Common risk factors for Fournier's gangrene include diabetes melitus, substance abuse, liver failure, and immunosuppression.*

Case presentation: *A 73-year-old woman collapsed and was transported to the emergency room tachycardic and in atrial fibrillation. Earlier that day she had an appointment with her gynecologist for evaluation of an inflamed, er-*

sramnih ustnic, za kar je izbran ginekolog predpisal antibiotično terapijo.

ythematous, painful left labia, which the gynecologist treated with antibiotics.

INTRODUCTION

Fournier's gangrene (FG) is a form of necrotizing fasciitis with a 20% mortality rate. FG primarily affects males > 50 years of age with a male-to-female ratio of 10:1. Despite the lower incidence, females have a higher mortality due to anatomic factors and a greater risk of peritonitis and retroperitonitis. FG affects the external genitalia, perineum, or perianal regions. FG is typically a polymicrobial infection. Cultures obtained from affected sites frequently grow *Staphylococcus spp.*, *Streptococcus spp.*, *Escherichia coli*, *Pseudomonas spp.*, *Bacteroides spp.*, and non-bacterial *Candida spp.* The common symptoms associated with FG include swelling of the external genitalia, pain, and a high fever. A delay in diagnosis after symptom onset can lead to skin necrosis. Erythema can progress along anatomic fascial planes. Due to the high mortality rate, immediate surgical intervention and broad-spectrum antibiotics are indicated (1-6).

CASE PRESENTATION

A 73-year-old woman with type 2 diabetes mellitus and paroxysmal atrial fibrillation collapsed and was transported to the emergency room tachycardic and in atrial fibrillation. Earlier that day she had an appointment with her gynecologist for evaluation of an inflamed, erythematous, painful left labia majora, which she noted after expressing the contents of a pustule. An ultrasound showed no evidence of an abscess, therefore the gynecologist cleaned the wound and prescribed antibiotics.

The left labia were severely swollen and sensitive to touch with a visible protrusion from which there was a purulent drainage. Furthermore, erythema of the gluteal and upper thigh areas was visible (Fig. 1).

In addition to a CT scan, blood cultures and a swab of purulent discharge were ordered. The CT scan showed thickening of the skin, structurally modified subcutaneous fat tissue on the left side of the mons pubis, outer labia, and perineum, and minimal extension to the gluteal area. The tissue changes extended to the superficial muscle fascia without air inclusion and liquid collection in the deeper tissues (Fig. 2).

Figure 1: *Swelling and erythema of the genital and upper thigh areas.*

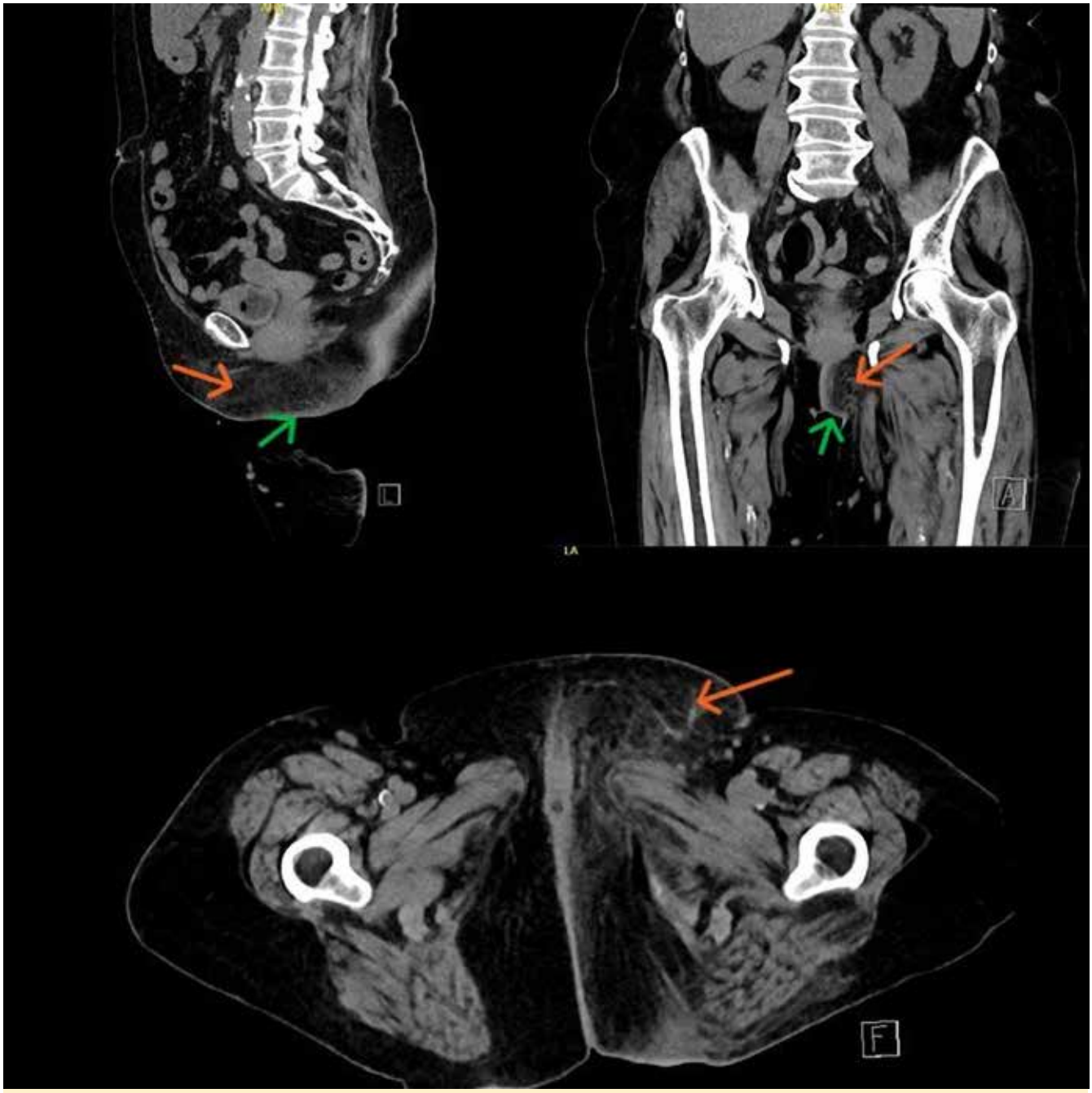

Figure 2: *A CT scan of the pelvis and lower abdomen shows thickened skin (green arrows), structurally altered subcutaneous fat of the left mons pubis, left labia majora, and left perineum with minimal extension to the left gluteal area (orange arrows).*

Because the CT scan was suspicious for FG, the patient was treated with empiric antibiotics (clindamycin and ceftriaxone). Moreover, incision and drainage was performed under local anesthesia, which yielded a purulent outflow. The patient was subsequently admitted to the intensive care unit in septic shock, where she received vasoactive therapy.

The blood culture results were negative, while the swab of the purulent drainage was positive for *E. coli*, *Enterococcus faecalis*, *E. avium*, *Streptococcus dysgalactiae*,

Bacteroides ovatus, *Actinomyces turicensis*, *Atopobium minutum*, and *Fusobacterium nucleatum*.
The patient was transferred to the Gynecology Department when hemodynamically stable,where spreading of the erythema and swelling was noted and the area was severely painful. Skin necrosis was present on the upper inner area of the thigh and lower gluteal area on the left side, measuring 3 x 3 cm (Fig. 3).

An MRI showed multiple abscesses within the muscles of the left thigh, so surgical treatment was indicated (Fig. 4). Ceftriaxone was replaced by piperacillin with a beta-lactamase inhibitor.

Figure 3: *Widespread erythema and swelling with skin necrosis.*

Surgical treatment entailed excision of the necrotic skin and subcutaneous tissue, evacuation of abscesses, and irrigating the wound with hydrogen peroxide. Swabs were obtained for microbiological testing. The excisions were revised in the ensuring days and a biopsy of necrotic tissue was obtained. The biopsy confirmed the diagnosis of necrotizing fasciitis. The swelling and erythema in the inguinal area on the left side increased 4 days postoperatively, therefore another incision was performed. In addition, a terminal sigmoidostomy was performed. Regular wound dressings were changed in the following 2 weeks and the patient's condition improved significantly. She was discharged to home with instructions for stoma care and a referral to a home care service.

DISCUSSION AND CONCLUSION

FG progresses rapidly and is often misdiagnosed due to non-specific symptoms, such as fever, perineal edema, and pain. As FG continues to progress, crepitus, a purulent discharge, and necrosis become apparent. A clinical diagnosis is made based on physical findings, imaging, risk factors, and standardized scoring. The most common risk factor for FG is diabetes melitus; other risk factors include substance abuse, liver failure, and immunosuppression. Treatment of FG includes immediate surgical intervention and broad-spectrum antibiotics (7-9).
This case demonstrated the rapid progression of FG and therefore highlights the importance of a multidisciplinary treatment approach. It is essential to rule out FG when a patient presents with the aforementioned symptoms and has multiple risk factors. It is recommended to monitor these patients closely, obtain swabs and blood cultures as soon as FG is suspected, order imaging, and consult infectious disease specialists and surgeons for timely intervention (7-10).

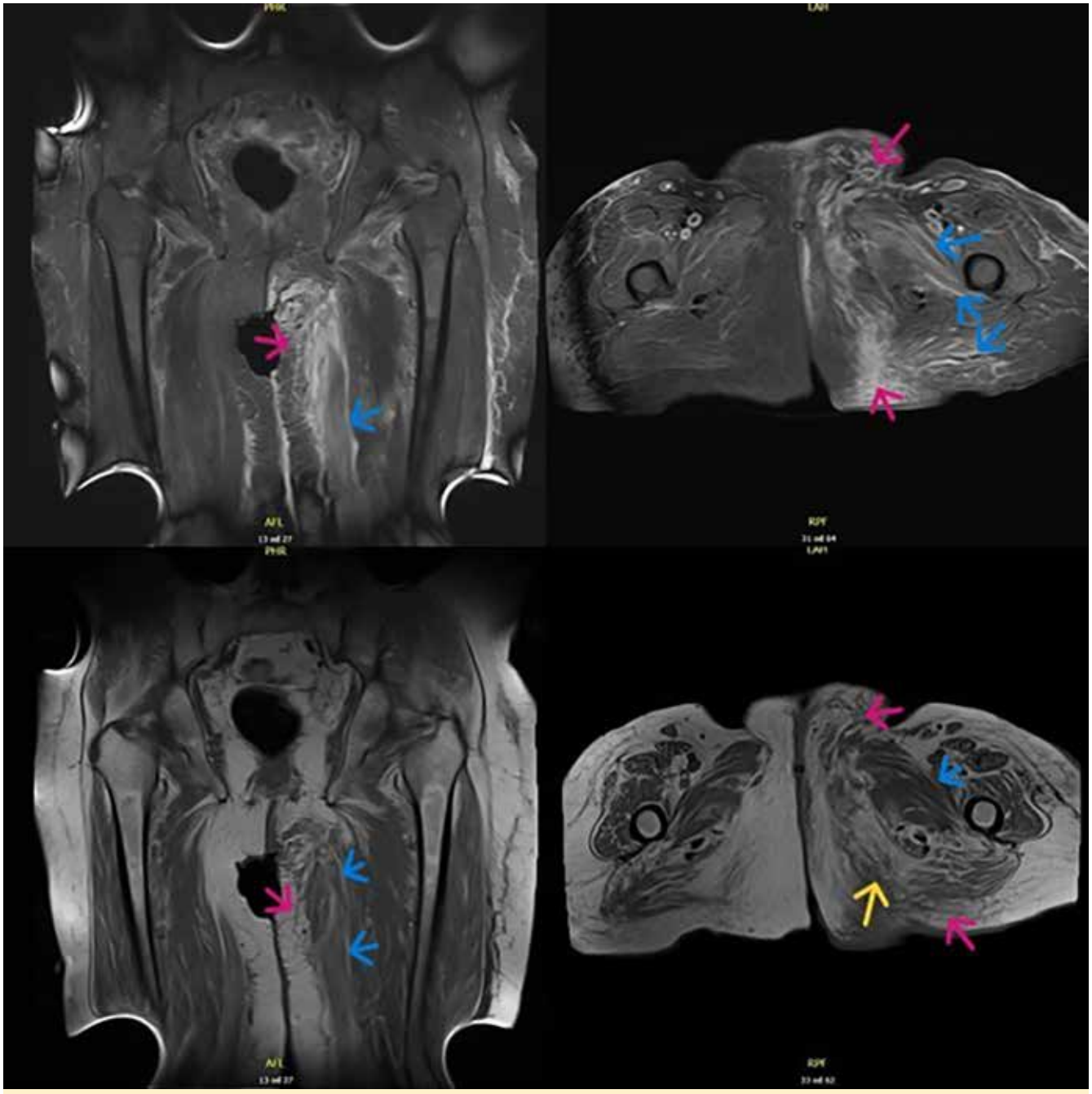

Figure 4: *MRI of the pelvis shows cellulitis on the inner and dorsal aspects of the left thigh (pink arrows) and fluid collection in the labia on the left, lateral to the left gracilis muscle (yellow arrows). Additionally the MRI shows mild-to-moderate thickening of the superficial and deeper fascia (blue arrows).*

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