

# Fournier gangrene

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*Infective necrotizing fasciitis of the external genitalia, perineal or perianal regions*

*Acute rapidly progressive and potentially fatal*

**Polymicrobial infection:** most common isolated aerobic organisms are *E. Coli*, *Klebsiella P*, and *Staph aureus* while most common isolated anaerobic organisms is *Bacteroides*

Most common **predisposing factors:** diabetes mellitus (small vessel disease, defective phagocytosis, diabetic neuropathy, and immunosuppression), alcohol overindulgence, poor hygiene, and any condition that decrease the host immunity

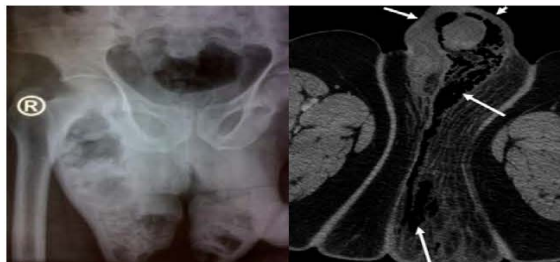
Portal of entry are: colorectal, urogenital, cutaneous sources or local trauma

**Clinical features** include sudden pain and swelling in the scrotum, purulence or wound discharge, crepitation, fluctuance, fever greater than 38°C (pronounced systemic signs, usually out of proportion to the local extent of the disease)

**Prognostic factors** on admission: 1) severe sepsis, 2) volume of necrosis (>5% BSA), 3) abnormal laboratory parameters (increased leukocyte count, creatinine, creatine kinase, urea, lactate dehydrogenase, decreased levels of hematocrit, bicarbonate, Na, K, Ca, total protein and albumin)

Rate of fascial necrosis has been noted as high as 2–3 cm per hour

**Computed tomography (CT)** plays an important role (extent of the disease): asymmetric fascial thickening, fluid collections, abscess formation, fat stranding around involved structures and subcutaneous emphysema



**Management** of FG is underscored by three main principles: rapid and aggressive surgical debridement of necrotized tissue, hemodynamic support with urgent resuscitation with fluids, and broad-spectrum parental antibiotics

Triple antibiotic therapy: empiric treatment with third-generation cephalosporins, an aminoglycoside and metronidazole or clindamycin



Primary goal of reconstruction is simple and efficient coverage

Additional goals are good cosmesis and the preservation of penile function

The best functional and cosmetic results are achieved with primary closure of any remaining scrotum, though this is only possible with small defects

Closure via secondary intention, particularly of large defects, prolongs healing time but also leads to contraction and deformity of the scrotum

Unexpanded, meshed STSGs: simple and reproducible technique for skin coverage after radical skin debridement of the genitals with adequate cosmetic and functional results

Scrotal advancement flaps provided good skin quality and cosmesis in small to medium sized scrotal defects. Patients with large and deep perineal defects often needed a myocutaneous or fasciocutaneous flap to eliminate dead space