Journal Homepage: - www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/16576
DOI URL: http://dx.doi.org/10.21474/IJAR01/16576

RESEARCH ARTICLE

NECROTIZING CELLULITIS OF THE PERINEUM COMPLICATING A SURGICAL CURE FOR BARTHOLINITIS: A CASE REPORT

Yassine Outifa[1,3], Othman Chama[2,3], Yassine Belhaj[1,3], Ghali Iraqui[1,3], Fatima Zahra Alaoui Fdili[1,3], Moulay Abdelilah Melhouf[1,3], Yahya Sebti[2,3], Mohammed Fadl Tazi[2,3] and Moulay Hassan Farih[2,3]

1. Department of Gynecology, Hassan II University Hospital, Fez, Morocco.
2. Department of Urology, Hassan II University Hospital, Fez, Morocco.
3. Faculty of Medicine, Pharmacy and Dentistry of Fez, Sidi Mohammed Ben Abdellah University, Morocco.

Manuscript Info

Manuscript History
Received: 31 January 2023
Final Accepted: 28 February 2023
Published: March 2023

Key words:-
Fournier's Gangrene, Bartholinitis, Surgery, Infection

Abstract

We report a very rare and serious complication of a surgically treated batholinitis. The patient was a 62-year-old woman who developed significant infiltration of the soft tissues in the perineal area extending to the hypogastric region and left thigh in the postoperative period, consistent with necrotizing fasciitis.

Introduction:-

Fournier's gangrene is a genitourinary pathology rarely encountered by urologists. The rarity of its occurrence and its sometimes atypical presentation often lead to a delay in diagnosis and treatment. The particular gravity of this pathology requires a high index of suspicion, in order to undertake very quickly an adapted treatment, often aggressive, medical and surgical. Fournier's Gangrene is a form of genital, perineal and perianal necrotizing fasciitis resulting from a polymicrobial infection whose source can be genitourinary, colorectal, cutaneous or idiopathic and which is potentially lethal. Moreover, it is the most frequent cause of genital skin loss [1]. In this case, we report a Fournier's gangrene complicating the postoperative aftermath of a bartholinitis.

Case Report:

Patient aged 62 years, married, multiparous, type 2 diabetic on ADO, initially operated in a peripheral hospital for an acute bartholinitis complicated with abcedation, having benefited from an excision then drainage. She was admitted 15 days after surgery with acute dyspnea and confusion associated with generalized erythema of the perineal region spreading to the abdominal region and the inner sides of the thighs bilaterally, with pus coming out at the excision site of the yellowish Bartholin gland with a fetid odor and the presence of crepitus on palpation, suggesting Fournier's gangrene complicated by an acid-ketotic decompensation of her diabetes (Figure 1)

Corresponding Author:- Yassine Outifa
Address:- Department of Gynecology, Hassan II University Hospital, Fez, Morocco.

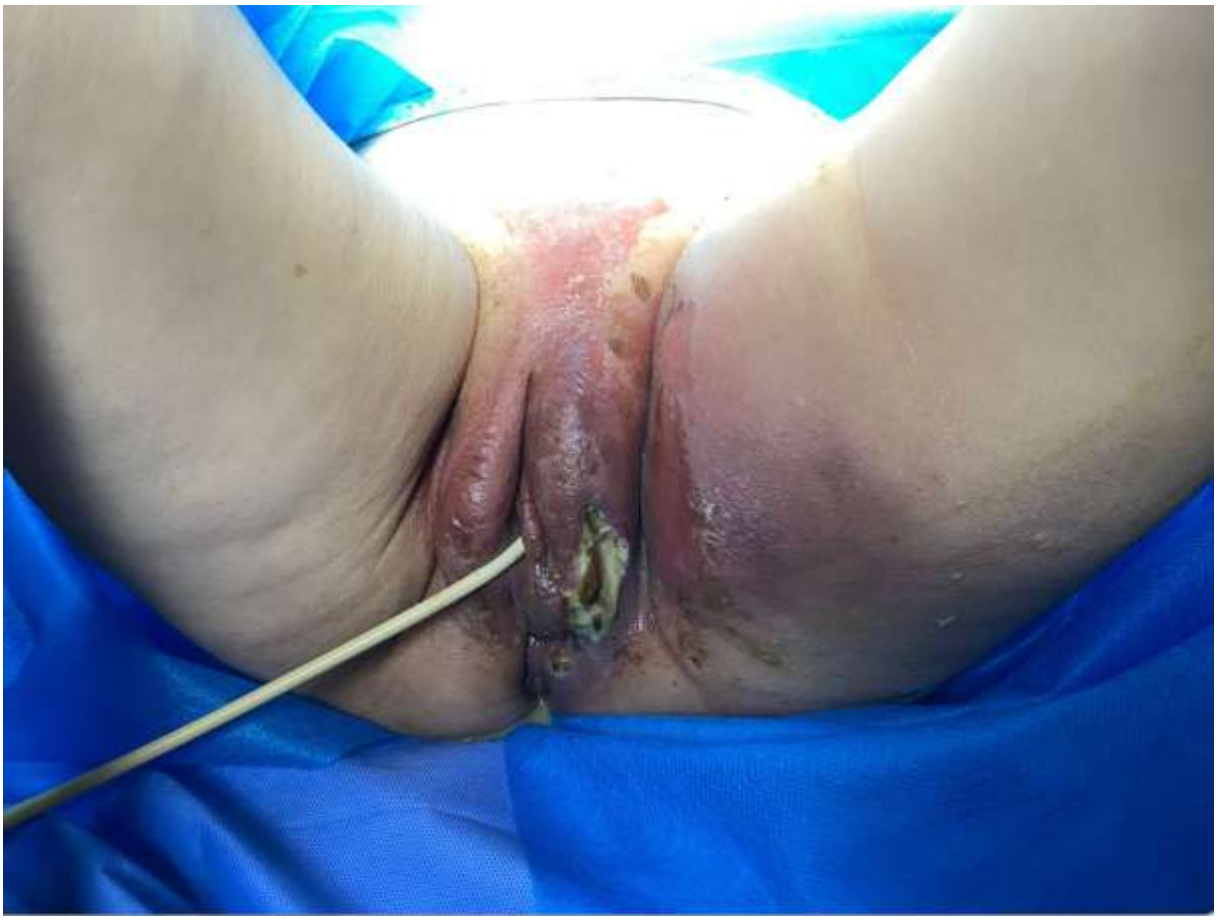

Figure 1:- Generalized Perineal Erythema And Pus Discharge At The Initial Excision Site.

The initial management focused on glycemic control, an initial broad-spectrum intravenous tri-antibiotic therapy based on Ceftriaxone (C3G), Metronidazole and aminoside as well as her admission to the operating room after the realization of an injected CT scan objectifying a collection of 4x4 cm opposite the right vulvar lip, between the superficial transverse muscle, the bulbospongiosus muscle and the ischio-cavernosus muscle, as well as a diffuse infiltration of the surrounding soft tissues and a collection extending to the abdominal wall and the homolateral thigh.

The surgical procedure consisted of a discharge incision at the level of the declivity zones, liberation of the pockets and excision of the fibrinous zones, as well as pus collection, followed by the placement of Delbet's blades communicating between the different discharge incisions, allowing for washing and drainage during the trimming (Figure 2). (The patient received several dressings in the operating room.

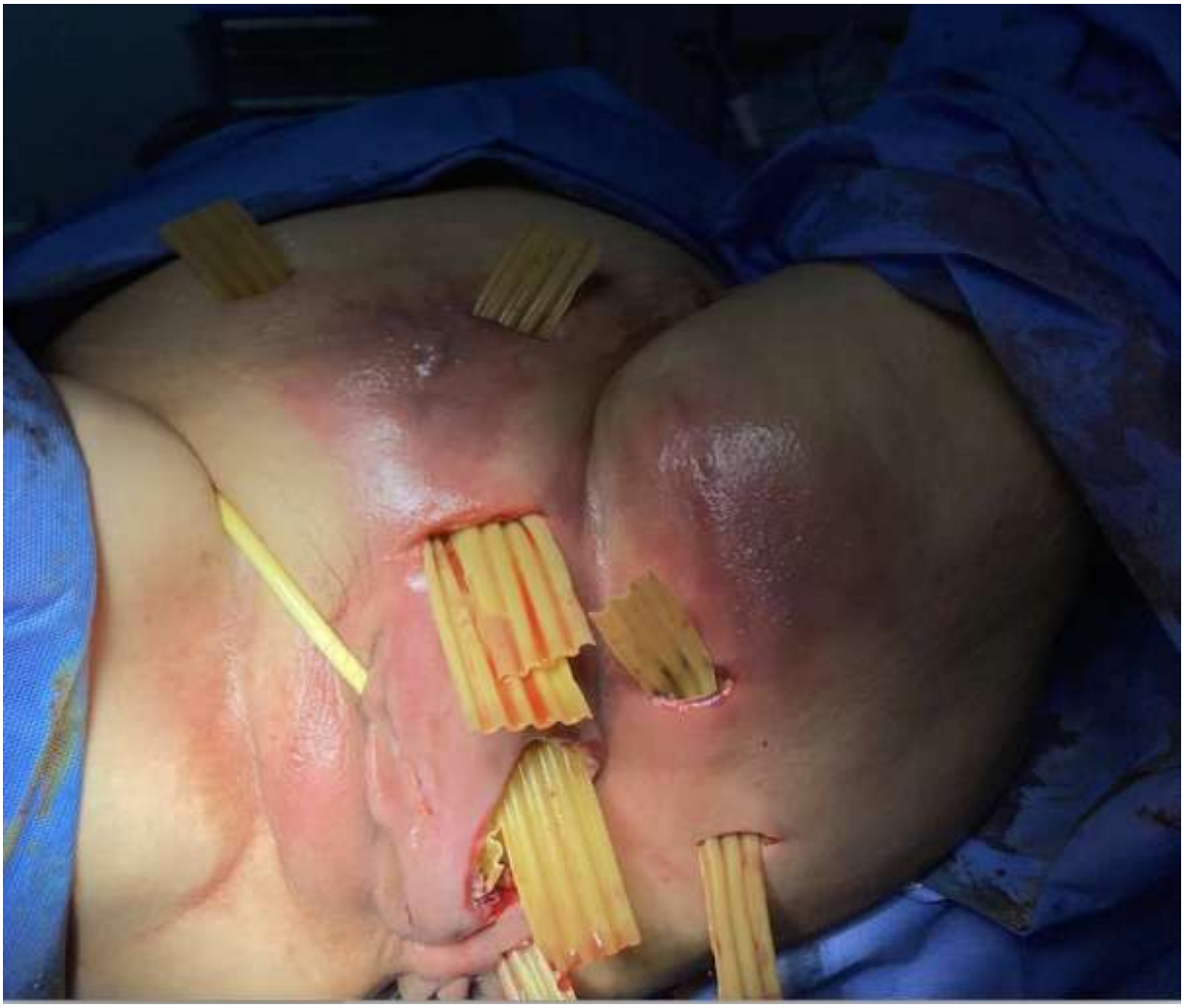

Figure 2:- Performance Of Multiple Skin Breakdown Incisions With Delbet Blade Drainage.

She was then hospitalized in our department for additional care for 18 days, benefiting from twice-daily perineal care, progressive removal of delbets, control of her diabetes in consultation with endocrinologists and adapted antibiotic therapy based on Imipenem/cilastatin after the result of the antibiogram showing E.coli and S. aureus sensitive only to carbapenems

The postoperative course was simple, the patient improved clinically (Figure 3) and biologically and was declared discharged on day 18 of her hospitalization after closing the discharge incisions.

Figure 3:- Good Local Clinical Evolution.

Discussion :-

In 1764, Baurienne described a rapidly progressive idiopathic gangrene of the soft tissues of the male external genitalia. However, it was Jean-Alfred Fournier, a Parisian dermatologist, who gave his name to the disease. Currently, we know that this disease occurs in patients of a wide age range, including advanced age, and that its etiology is identified in 95% of cases [1,2-3]. It is not confined to one region of the world, although the largest clinical series are from the African continent. In most of the reported cases, the age of the patients varied between 30 and 60 years. A review of the literature in 1996 found 56 pediatric cases, 66% of which were less than three months old [4]. Males are ten times more affected than females [1,3,4,5]. This difference may be explained by a better drainage of the perineal area in women through vaginal secretions. Although several cases described are idiopathic [6,7], the etiology is identified in 75 to 100% of patients. It is colorectal in 13-50% of cases and urogenital in 17-87% of cases [3,4]. Other causes include skin infections and local trauma. Colorectal sources include perirectal and perianal abscesses, rectal instrumentation [8,9], colonic perforations secondary to cancer [10], diverticulosis [4], hemorrhoidal cures [8], and anal intercourse in homosexuals. Urogenital sources include urethral strictures with urine extravasation and periurethral infection, urethral instrumentation, including indwelling catheters especially in paraplegics [1,3,4,11]. Cases of Fournier's gangrene have been reported after circumcision, hernia repair and penile prosthesis implantation [4,12]. Cutaneous sources include acute and chronic skin infections of the scrotum, suppurative hydradenitis, balanitis [4] and intentional trauma (scrotal piercing. Specific causes in women include septic abortions, Bartholin's gland abscesses and episiotomies. Several factors can promote the development of the disease, including conditions that depress immunity; diabetes, as in our patient, diabetes is present in 60% of cases, alcoholism, extreme ages, poor hygiene, acquired immune deficiency virus (HIV) infections [1,3,4], malnutrition, neoplasia, corticosteroid therapy, morbid obesity, pelvic vascular pathologies, cirrhosis, and neurological damage to the medulla with decreased perineoscrotal sensitivity [13].

Perineo-bladder gas gangrene, first described by Baurienne in 1764, then by Fournier in 1883, is classified as necrotizing dermo-hypodermitis of the perineum. They have a dreadful prognosis with a mortality rate that varies from 10% to 80%.

In 46 to 87% of cases, this necrotizing dermo-hypodermatitis is limited to the perineum, but extensive forms can occur, hence the interest of an early CT or MRI. As in our patient, the crepitations reached the hypogastric region and the left thigh.

The gangrenous process extends from the perineal region in two opposite directions, an ascending and a descending route. Downwards along the iliac psoas muscle and the femoral vessels to reach the thigh, as in our patient, through the crural arch for the anterior compartment or through the obturator foramen for the internal compartment. Sometimes the infection can spread to the posterior compartment through the sciatic foramen.

En haut elle se propage en pré-péritonéal, le long des muscles des parois abdominale et thoracique, ou en rétro péritonéal, en direction du médiastin et du cou, grâce à une diffusion le long des espaces para rectaux.

Everyone agrees that early surgery within the first 24 hours is necessary to trim the necrotic tissue. In the case of perineo gluteal gangrene, 2 to 6 trimmings are most often necessary. There is always time to be more aggressive if the clinical evolution is unfavorable. In our patient, during the first three days, the dressing change was done in the operating room under sedation because it was very painful, consisting of washing with betadine saline through the Delbets' blades as well as their mobilization.

Broad-spectrum probabilistic antibiotic therapy limits the spread of infection by the hematogenous route, but cannot reach necrotic tissue, which is affected by septic microthrombosis and is often compartmentalized. Effective anticoagulation has not been proven to improve the penetration of antibiotics into these tissues.

A hypercaloric diet, hypercaloric in association with hyperbaric oxygen therapy unfortunately not available in our center, would allow a faster healing by a better oxygenation of tissues.

Discharge colostomies make it possible to avoid soiling the dressings, a procedure that was not performed in our patient. We were satisfied with the installation of an indwelling urinary catheter.

Conclusion:-

Fournier's gangrene in women is a very rare condition. Appropriate management must be carried out as soon as the patient is admitted to the emergency room. Therapeutic measures include extensive trimming of necrotic areas, broad-spectrum antibiotic therapy, treatment of risk factors, and a high-protein diet. Hyperbaric oxygen therapy seems to be an interesting tool for management, especially in the healing phase, but unfortunately it is not available in our hospitals..

Références:-

[1] Schaeffer EM, Schaeffer AJ. Infections of the urinary tract. In: Wein A, editor. Campbell-Walsh urology. Saunders Elsevier; 2007. p. 301—3.
[2] Eke N. Fournier’s gangrene: a review of 1726 cases. Br J Surg 2000;87:718—28.
[3] Vick R, Carson C. Fournier’s disease. Urol Clin North Am 1999;26:841—9.
[4] Marynowski MT. Aronson AA. Fournier’s Gangrene. e Medicine March 2008. 84 P. Sarkis et al.
[5] Norton KS, Johnson LW, Perry T, Perry KH, Sehon JK, Zibari GB. Management of Fournier’s gangrene: an eleven-year retrospective analysis of early recognition, diagnosis, and treatment. Am J Surg 2002;68:709—13.
[6] Fournier JA. Gangrène foudroyante de la verge. Med Prat 1883;4:589—97.
[7] Fajdic J, Bukovic D, Hrgovic Z, Habek M, Gugic D, Jonas D, et al. Management of Fournier’s gangrene — report of 7 cases and review of the literature. Eur J Med Res 2007;12:169—72.
[8] Clay L, White J, Davidson J, Chandler JJ. Early recognition and successful management of pelvic cellulites following hemorroidal banding. Dis colon Rectum 1986;29:579—81.
[9] Cunningham B, Nivatvongs S, Shons A. Fournier’s gangrene following anorectal examination and mucosal biopsy. Dis Colon Rectum 1997;22:51—4.

[10] Dewire D, Bergstein J. Carcinoma of the sigmoid colon: an unusual cause of Fournier's gangrene. J Urol 1992;147:711—2.
[11] Karim MS. Fournier's gangrene following urethral necrosis by indwelling catheter. Urology 1984;23:173—5.
[12] Walther PJ, Adriani RT, Maggio MI, Carson CC. Fournier's gangrene: a complication of penile prosthetic implantation in a renal transplant patient. J Urol 1987;137:299—300.
[13] Nambiar PK, Lander S, Midha M. Fournier gangrene in spinal cord injury: a case report. J Spinal Cord Med 2005;28:121—4.