New Trends In Management Of
Perianal Fistula

Essay

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الجديد في علاج الناصور الشرجى

رسالة

توطئة للحصول على الماجستير في

الجراحة العامة

مقدمة من

الطبيب/ احمد محمود عرابى

بكالوريوس الطب والجراحة

تحت إشراف

الأستاذ الدكتور/ **سامح عبدالله معاطى**

أستاذ الجراحة العامة

كلية الطب-عين شمس

الدكتور/ **أحمدالسيد مراد**

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كلية الطب-عين شمس

الدكتور/**حنا حبيب حنا**

مدرس الجراحة العامة

كلية الطب-عين شمس

كلية الطب

جامعة عين شمس

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Summary

Fistula-in- ano is a track, lined by granulation tissue that connects deeply in the anal canal or rectum and superficially on the skin around the anus. Perianal fistula is characterized by chronic, purulent, malodorous, ulcerating, sinus tracts in the perianal tissue. The cryptoglandular hypothesis is the most accepted theory in its pathogenesis, also there are some other causes e. g Crohn's disease, ulcerative colitis, actinomycosis, foreign body, lymphogranuloma venerium and trauma. The estimated incidence is about 1: 10. 000. Most fistulae occur at the age of 30-60 years. The gender ratio in adults is (male: female) 2: 1 to 4: 1

In the standard classification of anal fistulae, the fistula is classified into two groups; low level fistulae in which the internal opening below the anorectal ring, and high level fistulae in which the internal opening at or above the anorectal ring, but the most widely used classification is that of park's in which the anal fistulae are classified into; inter-sphincteric, trans-sphincteric, supra-sphincteric, extra-sphincteric.

Radiological investigation have a limited role in evaluation of fistula in ano, most primary fistulae can be treated on the basis of clinical examination alone. However, when atypical features are present or when prior surgery has failed, radiological evaluation may be useful.

Fistulography can reveal the depth and the branches of the tracks. However, the injection of dye under high pressure carries the risk of sepsis dissemination.

With Three dimension endanal ultrasound, fistula tract is visualized as tube-like hypoechoic lesion, when hydrogen peroxide 3% is introduced into the fistula tract it generates

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List of Abbreviations

3-D ..... Three dimensions
AIDS .... Acquired immune deficiency syndrome
CD ..... Crohn's disease
CT ..... Computed tomography
EAS ..... External anal sphincter
EUA ..... Examination under anaesthesia
EUS ..... Endoanal ultra-sonography
H_2O_2 .... Hydrogen peroxide
HIV ..... Human immune deficiency virus
IAS ..... Internal anal sphincter
IBD ..... Inflammatory bowel disease
M:F ..... Male to female ratio
MRI ..... Magnetic resonance imaging
TB ..... Tuberculosis

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Introduction

Introduction

Anal and perianal diseases, especially fistula-in-ano by their nature are embarrassing to the patient. This disease not only stresses the patient through soiling and foul smelling discharge but also causes panic. On the contrary, over enthusiastic operative treatment results in ever embarrassing faecal incontinence **(Mangual, 2004).**

Fistula-in- ano is a track, lined by granulation tissue that connects deeply in the anal canal or rectum and superficially on the skin around the anus. Perianal fistula is characterized by chronic, purulent, malodorous, ulcerating, sinus tracts in the perianal tissue **(Williams, 2004)**

Fistula-in-ano can result from a number of clinical conditions. Majority of the patients give positive past history of perianal abscess. In fact, perianal abscesses are fairly common in the community due to poor personal hygiene and hot and humid climate. Multiple fistulae can occur due to other reasons like, Crohn's disease, actinomycosis, malignancy etc **(Mangual, 2004).**

The Parks classification system defining the 4 major types of anorectal fistulas in order of decreasing frequency is as follow: intermuscular (70%), trans-sphincteric (23%), extrasphincteric (5%), and suprasphincteric (2%) **(Parks, 1996).**

Simple anorectal fistulae are usually diagnosed by physical examination only, in patients suffering intermittent pain and purulent, often bloodstained, perianal discharge with a common history of anorectal abscess drainage. While physical examination is usually sufficient for assessment in

uncomplicated abscess- fistula disease, imaging studies such as contrast fistulography, US or MRI may be useful in the evaluation of complex or recurrent disease **(Maier, 2001).**

The treatment of fistula has remained a challenging job for the surgeons. Different surgical techniques have been described in literature. These include fistulotomy, insertion of a seton, two staged fistulotomy, advancement flaps, repair of fistula using fibrin adhesive glue and rerouting the fistula. The surgical treatment of perianal fistula is followed by a high recurrence rate. So there is no single surgical intervention established for treating perianal fistula **(Qureshi et al., 2002).**

Fistulotomy continues to be the gold standard to which other therapies must be compared, also preservation of continence is an important goal **(Singer et al., 2006).**

Aim of the Work

AIM OF THE WORK

The aim of the present study is to highlight the new theories in pathphysiology,etiology of perianal fistula, different modalities and new update in management of perianal fistula.

Anatomy of the Anorectal Region

Anatomy of the Rectum and Anal Canal

Surgical anatomy of the anal canal:

Two definitions are found describing the anal canal The "anatomic" or "embryologic" anal canal is only 2. 0 cm long, extending from the anal verge to the dentate line, the level that corresponds to the proctodeal membrane. The "surgical" or "functional" anal canal is longer, extending for approximately 4. 0 cm (in men) from the anal verge to the anorectal ring (levator ani). This "long anal canal" concept was first introduced by **Milligan and Morgan (1934**) and has been considered, despite not being proximally marked by any apparent epithelial or developmental boundary, useful both as a physiologic and surgical parameter. The anorectal ring is at the level of the distal end of the ampullary part of the rectum and forms the anorectal angle, and the beginning of a region of higher intraluminal pressure. Therefore, this definition correlates with digital, manometric, and sonographic examinations **(Jorge and Habr-Gama., 2007).**

Relation of anal canal

Posteriorly, the canal is related to the coccyx with a certain amount of fibrous, fatty and muscular tissue intervening

Laterally, there is ischio-rectal fossa on either sides containing fat and the inferior haemorroidal vessels and nerves which cross it to enter the wall of the canal

Anteriorly, in the male the canal is related to the central point of the perineum, the bull of the urethra and the posterior border of the urogenital diaphragm containing the membranous urethra. In the female the canal is related in front to the perineal