

Recent Trends in the Management of Perianal Fistula

Essay

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General Surgery

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Introduction

A perianal fistula is a common condition. It has an incidence of 5.6 per 100.000 in women and 12.3 per 100.000 in men. The disease occurs predominantly in the third and fourth decade of life. It is believed that infection of the intersphincteric glands is the initiating event in fistula in ano, in a process known as the 'cryptoglandular hypothesis' (*van Koperen et al., 2008*).

Parks et al. (1976) developed a classification system in which fistulae are divided into intersphincteric fistula, transsphincteric fistula, suprasphincteric fistula and extrasphincteric fistula. However the type of treatment depends not on the location of the fistula tract but on the level of the internal opening in the anal canal.

Low transsphincteric fistulae comprising less than 1/3 of the external sphincter complex are easy to treat by fistulotomy with a high success rate. High transsphincteric fistulae remain a surgical challenge. Surgical procedures include advancement flaps, loose-seton placement, and the installation of fibrin glue. All of these techniques have disappointing success rates. In the literature a recurrence rate between 0 and 63% is reported for the mucosal flap advancement (*Buchanan et al., 2004*). *Van der Hagen et al. (2006)* published the result of 41 patients with high


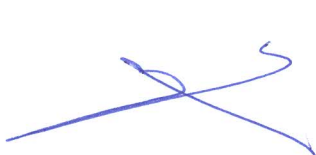


transsphincteric, suprasphincteric and extrasphincteric fistula treated with a mucosal flap advancement. The success rate was a mere 37% (with a median follow-up of 72 months).

The fibrin glue is an alternative to the mucosal advancement flap, however long-term closure rates are low (*Ellis and Clark, 2006*). The percentages being as low as 16 percent. The liquid consistency of fibrin glue is possibly not ideal for the purpose of closing anorectal fistulae, because the glue is easily extruded from the fistula tract by increased pressure (*Hammond et al., 2004*).

Johnson and colleagues (2006) reported a new biologic anal fistula plug. The plug is a FDA and CE approved bioabsorbable xenograft, made of lyophilized porcine intestinal submucosa. The material has inherent resistance to infection, produces no foreign body or giant cell reaction, and becomes repopulated with host cell tissue during a period of three months. The material was fashioned into a conical plug and secured into the primary opening of the fistula tract.

Johnson and colleagues (2006) achieved promising results in a prospective series of 15 patients treated with the anal fistula plug. They compared the results with ten patients using fibrin glue. Patients with high anorectal fistulae (high transsphincteric or deeper) were included. Excluded were patients with Crohn's disease or superficial fistulae (low

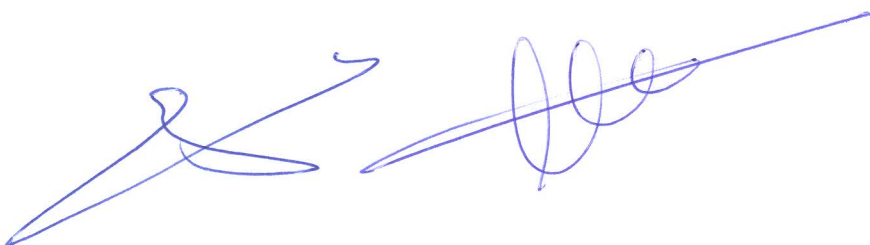


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transsphincteric or more superficial). At a median follow-up of 13.8 ± 3.1 weeks they achieved a significant better fistula closure rate of 87% compared to the fibrin glue group ($P < 0.05$).

Song et al. (2008) have reported a 100% success rate of acellular extracellular matrix (AEM) anal fistula plug in low fistula-in-ano. The results with this product in high fistula-in-ano are keenly awaited.

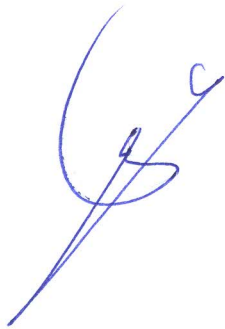
Transanal advancement flap repair (TAFR) has been advocated as the treatment of choice for transsphincteric perianal fistulae passing through the upper or middle third of the external anal sphincter. Initially, the reported healing rates varied between 84 and 100 percent (*Mitalas et al., 2007*).



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Aim Of The Work

The aim of this work is to discuss the various classification of perianal fistula, clinical picture, diagnosis and management with special emphasis on most recent trends.

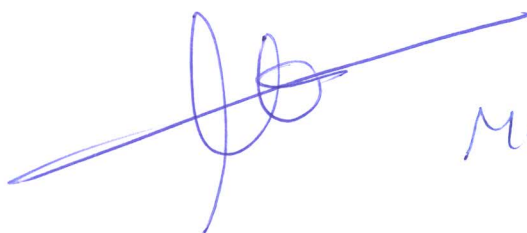
A handwritten signature in blue ink, consisting of a large, stylized letter 'G' followed by a smaller, more complex flourish.

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