Introduction

Perianal fistulization is an important condition of the gastrointestinal tract that causes substantial morbidity. Perianal fistulas occur in approximately 10 of 100,000 persons, with a two to four fold male predominance ***(Morris et al., 2000)***.

Perianal fistulae commonly occur in middle-aged men. They are thought to be a result of anal gland obstruction, with secondary abscess formation and external rupture of the abscess **(Bhaya AK et al., 2007)**.

Fistula in ano is a benign condition but may cause considerable distress to the patient and difficulty for the surgeon. Fistulae are intimately related to the anal sphincter complex, so that incision and drainage may damage those muscles to a variable degree with the risk of anal incontinence. The correct balance between eradication of infection and maintenance of continence depends upon accurate pre-operative assessment of fistula geographically; namely the site and level of any internal opening, the anatomy of primary track, and the presence of any secondary ramifications ***(Lunniss et al., 1992)***.

Despite the fact that anal fistulae are very common and have been studied extensively, some complex forms still continue to pose a difficult surgical problem **(Buchanan et al.,2004).**

The surgical approach to complicated perianal fistulas depends on the extent and ramifications of the fistula. Inspection, palpation, and probing, may help to identify the internal and external openings and the direction of the fistula course ***(Weisman et al., 1991)***.

Conventional radiography and procto-sigmoidoscopy are often insufficient to demonstrate the extra-intestinal extent of the disease caused by the transmuraly penetrating nature of the inflammatory process, they have traditionally been imaged by conventional fistulograms; the procedure involves cannulation of the external opening and injection of a water-soluble contrast into the fistula. This method has two main disadvantages: First, the primary tract and its extensions do not fill with contrast if they are plugged with pus or debris and, second, the sphincter muscle anatomy is not imaged and hence the relation between the tract, the internal/external sphincter, and the levator ani muscle is not revealed **(Halligan et al.,2006).**

Transrectal ultrasound better depicts fistulae and their relation to the anal sphincter muscles. The operator dependence, limited field of view and absence of a coronal plane of imaging, however, are its disadvantages **(Halligan et al.,2006).**

Computed tomography (CT) and trans-rectal ultrasonography (TRUS) are being performed with increasing frequency in the diagnostic work-up of fistulous disease ***(Van Outryve.,1991)*.**

Magnetic resonance (MR) imaging has been shown to demonstrate accurately the anatomy of the perianal region. In addition to showing the anal sphincter mechanism, MR imaging clearly shows the relationship of fistulas to the pelvic diaphragm (levator plate) and the ischiorectal fossae. This relationship has important implications for surgical management and outcome ***(Morris et al., 2000)***.

The aim of treatment for an anal fistula is to permanently eliminate abscess formation and achieve healing while preserving anal function and continence. Overly aggressive fistulotomy can lead to postoperative fecal incontinence, whereas inappropriate conservative treatment could lead to fistula recurrence. Therefore, accurate preoperative assessment of a fistula is necessary for optimal surgical results. **(Lindsey et al.,2002)**.