## The Use of Glyceryl Tri-Nitrate Ointment in Treatment of Chronic Fissure in Ano

Suhair Al-Saad, MBChB ,FRCS I,CABS,\* Hamdi Al- Shenawi, MBBS, FRCS I\*\*
Mariam Junaid, MBBS \*\*\* Deena Rashid, MBBS \*\*\*\*

Background: Chronic anal fissure is a common painful condition. It is traditionally treated by anal dilatation or by lateral sphincterotomy. However, both of these surgical treatments may cause a degree of incontinence in 35 - 45% of patients. Several recent trials have shown that glyceryl trinitrate (GTN) can reduce sphincter pressure and heal up to 70% of chronic fissures.

Objective: Assessment of the efficacy of topical 0.2% glyceryl trinitrate (GTN) ointment in the treatment of chronic anal fissure.

Design: Prospective uncontrolled clinical study.

Setting: Surgical polyclinic, Bahrain.

Method: Fifty-four patients were diagnosed as having chronic anal fissure and treated with 0.2% GTN ointment during the period from June 2002 to August 2005. They were reviewed at 1, 2, 6-8 and up to 12 weeks to assess symptoms, fissure healing, compliance, duration of symptoms free period after finishing or stopping the course of treatment.

Result: At six-eight weeks, the GTN course was completed or taken for longer duration in 34 patients (62.9%). The course was stopped before 6-8 weeks in 20 patients (37%). Pain was completely relieved in 25 /34 patients (73.5%) and partially relieved in 5/34 patients (14.7%), bleeding was absent in 32/34 patients (94%), anal tone became normal in 32/34 patients (94%), and 28/34 patients (82.4%) had either healing or healed fissures.

Twenty patients stopped GTN course before 6 weeks due to different causes, such as, side effects mainly headache (60 %), non compliance (95%), or no response at all (50%). Recurrence of symptoms in the first six months was seen in 26 patients. There was a highly significant positive relationship between duration of treatment and recurrence of symptoms. The recurrence was treated surgically in 14 patients, traditional ointments in 8 patients, and repeated GTN course in 4 patients.

Conclusion: The use of 0.2% GTN induces rapid healing of chronic anal fissures with an 82.4% healing rate in this study. Successful treatment may come at the expense of high incidence of headache although it is lower in our study due to low GTN concentration.

Bahrain Med Bull 2006: 28(4):