

## POSTER ABSTRACTS

11<sup>th</sup> Annual HMO Research Network Conference

April 4-6, 2005 Santa Fe, NM

TRIP  
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### Treatment of Chronic Anal Fissures: Is it Worth the Headache?

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**Background:** The most common non-surgical treatment of chronic anal fissures is the use of topical nitrates (NTG). This treatment, however, is associated with poor patient compliance due to the side effect of headache. The objective of this study was to determine the effectiveness of topical diltiazem ointment as compared with topical glyceryl trinitrate (NTG) ointment, the current standard of care, in the treatment of chronic anal fissures and to measure patient satisfaction with both preparations.

**Methods:** A prospective double-blinded study was conducted in adult patients, 18 years and over, diagnosed with chronic anal fissures. Glyceryl trinitrate (NTG) (0.2%) and diltiazem (2%) were each compounded with petroleum jelly. The study drugs were applied topically, two times daily for 6 weeks. Patients were called once a week for 6 weeks and asked for their weekly average visual analog scale pain rating, the amount of pain medication taken for the week, any side effects from the study medication and if they were compliant in applying the study medication. At the 6-week follow-up examination, patients were either healed, received a Botox injection, or were told to continue with the study medication and to return if needed.

**Results:** Forty-six adult patients participated in the study. The mean age was  $54 \pm 13$  and 28 (61%) patients were males. Twenty-two patients were treated with diltiazem and 24 were treated with NTG. We found no statistically significant differences in age ( $p < 0.14$ ), or gender ( $p < 0.4$ ) between the two groups. The NTG group reported lower mean pain scores ( $p < 0.03$ ) than the diltiazem group for first week only. The NTG group also reported higher over the counter pain medication use ( $p < 0.09$ ) than the diltiazem group for first week only. We found no statistically significant differences in number of fissures healed or compliance with therapy between the two groups. The NTG group reported more headaches for all 6 weeks. Three patients (13%) in the NTG group did not finish the 6-week therapy because of side effects, while all patients finished in the diltiazem group.

**Conclusion:** Use of diltiazem for treatment of chronic anal fissures reduces the occurrence of headache while maintaining healing effectiveness similar to NTG and potentially improving compliance with treatment. A change in our practice has resulted from this study.