



PIC QUESTION OF THE WEEK: 10/25/04

Q. Is there a topical preparation of diltiazem for anal fissures?

A. Anal fissures are painful tears in the distal anal canal. Most heal spontaneously, but some become chronic. Chronic fissures are associated with spasm of the internal anal sphincter. Anal fissures have been treated with nitroglycerin ointment, botulinum toxin injection, and calcium channel blockers. Diltiazem, a calcium channel blocker, helps heal chronic anal fissures by lowering resting anal pressure. Currently, a 2% diltiazem gel is available in the United Kingdom. However, there are no approved formulations manufactured in the United States. The following is a formula for compounding diltiazem gel.

Diltiazem 2% Topical Gel

<u>Ingredients</u>	<u>Quantities</u>
Diltiazem	2 g
Propylene glycol	10 mL
Hydroxyethyl cellulose	2 g
Preserved water	qs 100 mL

Compounding Notes

1. Weigh or measure each ingredient.
2. Combine the diltiazem hydrochloride with propylene glycol.
3. Incorporate the hydroxyethyl cellulose and mix well.
4. Slowly stir the mixture while incorporating the previously heated (approximately 70°C) preserved water.
5. Package in a tight, light-resistant container.

Shelf life: 30 days

References:

Lindsey I., et al. Chronic anal fissure. *Br J Surg* 2004;91:270-9.
Griffin V. Diltiazem ointment. *Hosp Pharm* 2003;38:802,806.

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