

# Literature Review

## Topical Vasodilator Usage

<b>Medication</b>	<b>Title of Article</b>	<b>Pubmed Link</b>
NIFEDIPINE	Randomized controlled pilot trial of nifedipine as oral therapy vs. topical application in the treatment of fissure-in-ano.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/24035211">http://www.ncbi.nlm.nih.gov/pubmed/24035211</a>
NIFEDIPINE	Confirmed efficacy of topical nifedipine in the treatment of facial wrinkles.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/23688162">http://www.ncbi.nlm.nih.gov/pubmed/23688162</a>
NIFEDIPINE	The effect of topical nifedipine in treatment of chronic anal fissure.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/21287460">http://www.ncbi.nlm.nih.gov/pubmed/21287460</a>
NIFEDIPINE	Topical nifedipine for the treatment of localized provoked vulvodynia: a placebo-controlled study.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/20537958">http://www.ncbi.nlm.nih.gov/pubmed/20537958</a>
NIFEDIPINE	Topical nifedipine with lidocaine ointment versus active control for pain after hemorrhoidectomy: results of a multicentre, prospective, randomized, double-blind study.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/20100408">http://www.ncbi.nlm.nih.gov/pubmed/20100408</a>
NIFEDIPINE	Treatment of periocular wrinkles with topical nifedipine.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/19929263">http://www.ncbi.nlm.nih.gov/pubmed/19929263</a>
NIFEDIPINE	Serum levels and possible haemodynamic effects following anorectal application of an ointment containing nifedipine and lignocaine : a study in healthy volunteers.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/17163278">http://www.ncbi.nlm.nih.gov/pubmed/17163278</a>
NIFEDIPINE	Topical 0.5% nifedipine vs. lateral internal sphincterotomy for the treatment of chronic anal fissure: long-term follow-up.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/16091912">http://www.ncbi.nlm.nih.gov/pubmed/16091912</a>
NIFEDIPINE	Topical nifedipine vs. topical glyceryl trinitrate for treatment of chronic anal fissure.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/12794583">http://www.ncbi.nlm.nih.gov/pubmed/12794583</a>
NIFEDIPINE	Conservative treatment of acute thrombosed external hemorrhoids with topical nifedipine.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/11289288">http://www.ncbi.nlm.nih.gov/pubmed/11289288</a>
NIFEDIPINE	Nifedipine for local use in conservative treatment of anal fissures: preliminary results of a multicenter study.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/10458123">http://www.ncbi.nlm.nih.gov/pubmed/10458123</a>
DILTIAZEM	Partial lateral internal sphincterotomy versus combined botulinum toxin A injection and topical diltiazem in the treatment of chronic anal fissure: a randomized clinical trial.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/25585082">http://www.ncbi.nlm.nih.gov/pubmed/25585082</a>
DILTIAZEM	Diltiazem vs. glyceryl tri-nitrate for symptomatic relief in anal fissure: a randomised clinical study.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/25272534">http://www.ncbi.nlm.nih.gov/pubmed/25272534</a>
DILTIAZEM	Comparison of topical isosorbide mononitrate, topical diltiazem, and their combination in the treatment of chronic anal fissure.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/24054756">http://www.ncbi.nlm.nih.gov/pubmed/24054756</a>
DILTIAZEM	A randomized, prospective, double-blind, placebo-controlled trial of the effect of diltiazem gel on pain after hemorrhoidectomy.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/23775515">http://www.ncbi.nlm.nih.gov/pubmed/23775515</a>

<b>Medication</b>	<b>Title of Article</b>	<b>Pubmed Link</b>
DILTIAZEM	A prospective, randomized, double-blind study comparing the efficacy of diltiazem, glyceryl trinitrate, and lidocaine for the treatment of anal fissure in children.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/22212494">http://www.ncbi.nlm.nih.gov/pubmed/22212494</a>
DILTIAZEM	Early and late results of topical diltiazem and bethanechol for chronic anal fissure: a comparative study.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/20422877">http://www.ncbi.nlm.nih.gov/pubmed/20422877</a>
DILTIAZEM	Topical vasodilators for preventing radial artery spasm during harvesting for coronary revascularization: comparison of 4 agents.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/16893753">http://www.ncbi.nlm.nih.gov/pubmed/16893753</a>
DILTIAZEM	Topical diltiazem and bethanechol decrease anal sphincter pressure without side effects.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/10517908">http://www.ncbi.nlm.nih.gov/pubmed/10517908</a>
DILTIAZEM	A randomized trial of oral vs. topical diltiazem for chronic anal fissures.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/11535842">http://www.ncbi.nlm.nih.gov/pubmed/11535842</a>
VERAPAMIL	Topically applied verapamil hydrochloride inhibits tuberculin-induced delayed-type hypersensitivity reactions in human skin.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/1469293">http://www.ncbi.nlm.nih.gov/pubmed/1469293</a>
VERAPAMIL	Comparative study of topical application of timolol and verapamil in patients with glaucoma within 6 months.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/20028263">http://www.ncbi.nlm.nih.gov/pubmed/20028263</a>
VERAPAMIL	Topical verapamil in glaucoma filtration surgery.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/11442185">http://www.ncbi.nlm.nih.gov/pubmed/11442185</a>
PROPRANOLOL	Combination therapy of infantile hemangioma with pulsed dye laser with topical propranolol: a randomized clinical trial.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/25305763">http://www.ncbi.nlm.nih.gov/pubmed/25305763</a>
PROPRANOLOL	Propranolol and infantile hemangiomas: different routes of administration, a randomized clinical trial.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/24135427">http://www.ncbi.nlm.nih.gov/pubmed/24135427</a>