Photomedicine and Laser Surgery

A New Method For Hemorrhoid Surgery: Intrahemorrhoidal Diode Laser, Does It Work?

To cite this article:

Published in Volume: 27 Issue 5: November 1, 2009
Online Ahead of Print: August 29, 2009

Author information

Universidade Federal de São Paulo (UNIFESP), São Paulo, Brazil.

Address correspondence to:
Hélio Plapler, M.D.
Rua Tomas Carvalhal 884 ap 51
CEP: 04006-003 São Paulo
Brazil
E-mail: helio@plapler.com.br

ABSTRACT

Objective: This study aimed to describe the clinical results of intrahemorrhoidal application of a diode laser. Background Data: Hemorrhoids are a common source of pain, and no surgical technique achieves a painless outcome. Endovascular laser therapy for varicose veins as described in an experimental study is a method that could be used in the treatment of hemorrhoids, but there are few clinical trials described in the literature. Materials and Methods: Fifteen patients with second and third degree hemorrhoids underwent intrahemorrhoidal laser therapy. After the piles were identified, a fiber was introduced into each and it was irradiated with laser energy (810 nm, 5 W, frequency of 5 Hz, energy density of 19 J/cm², total energy of 4–10 J). Results: The piles were immediately partially reduced, and clinical examination at 7, 14, 21, and 28 days after surgery showed complete healing in nine patients (60.4%) and partial resolution in five patients (33%). In one patient (6.6%) the treatment failed. Mean pain intensity throughout the study period, measured by a visual analog scale (0–10), was 0.84 ± 1.13 (mean ± SD). Major complications were burn lesions (n = 4) and residual plicoma (skin tag) (n = 5). Ten control patients underwent an open "cold scalpel" hemorrhoidectomy. Their pain intensity was 1.78 ± 0.68 (mean ± SD). There was a significant statistical difference (p = 0.018) between groups. Conclusion: The diode laser energy delivered into small to median hemorrhoidal piles caused little pain and led to a partial to complete resolution within a short time compared to open hemorrhoidectomy. Some adjustments must be made to prevent burning lesions and residual plicoma. Although it is not a good method for big piles, this technique opens new possibilities for surgical treatment of hemorrhoidal disease.