

ORIGINAL ARTICLE

# Five years of experience with the FiLaC<sup>TM</sup> laser for fistula-in-ano management: long-term follow-up from a single institution

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## Abstract

**Background** There are limited data available concerning endofistular therapies for fistula-in-ano, with our group reporting the first preliminary outcomes of the use of the radial fibre Fistula laser Closing (FiLaC<sup>TM</sup>) device.

**Methods** The aim of this study was to assess a cohort of anal fistulae managed with laser ablation plus definitive flap closure of the internal fistula opening over a long-term follow-up. Factors governing primary healing success and secondary healing success (i.e. success after one or two operations) were determined.

**Results** The study analysed 117 patients over a median follow-up period of 25.4 months (range 6–60 months) with 13 patients (11.1%) having Crohn's-related fistulae. No incontinence to solid and liquid stool was reported. Minor incontinence to mucus and gas was observed in two cases (1.7%), and a late abscess treated in one case (0.8%). The primary healing rate was 75/117 (64.1%) overall, and 63.5% for cryptoglandular fistulae versus 69.2% for Crohn's fistulae, respectively. Of the 42 patients who failed FiLaC<sup>TM</sup> 31 underwent a second operation ("Re-FiLaC<sup>TM</sup>", fistulectomy with sphincter reconstruction or fistulotomy). The secondary healing rate, defined as healing of the fistula at the end of the study period, was

103/117 (88.0%) overall and 85.5% for cryptoglandular fistulae versus 92.3% for Crohn's fistulae. A significantly higher primary success rate was observed for intersphincteric-type fistulae with primary and secondary outcome unaffected by age, gender, presence of Crohn's disease, number of prior surgeries and the type of flap designed to close the internal fistula opening.

**Conclusions** There is a moderate primary success rate using first-up FiLaC<sup>TM</sup> treatment. If FiLaC<sup>TM</sup> fails, secondary success with repeat FiLaC<sup>TM</sup> or other approaches was high. The minimally invasive FiLaC<sup>TM</sup> approach may therefore represent a sensible first-line treatment option for anal fistula repair.

**Keywords** Anal fistula · Repair · Sphincter-preserving · Laser · FiLaC · Faecal incontinence