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Surgical Management of Anal Fissures in a Proctologic Surgery Service: A Retrospective Descriptive Study

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Abstract: **Original Research**

Background: Anal fissure is a frequent benign anorectal disorder. Although lateral internal sphincterotomy has long been considered the reference surgical treatment, concerns regarding postoperative continence disorders have encouraged sphincter-preserving strategies. ***Objective:*** To report our institutional experience in the surgical management of anal fissures in a specialized proctologic surgery service. ***Methods:*** Retrospective descriptive study including all consecutive patients operated on for anal fissure in the Service of Proctologic Surgery, Mohammed V Military Teaching Hospital (HMIMV), Rabat, between November and December 2025. ***Results***: Twenty patients were included. Most fissures were posterior and chronic. Associated anorectal lesions were frequent. Surgical management was based on fissurectomy with tailored associated procedures. No systematic lateral internal sphincterotomy was performed. No intraoperative complications were observed. ***Conclusion:*** Anal fissure is rarely an isolated disease. A fissurectomy-based, sphincter-sparing approach appears safe and well adapted to tertiary proctology practice.

Keywords: Anal Fissure, Fissurectomy; Proctologic Surgery, Sphincter-Sparing Surgery, Retrospective Study.

INTRODUCTION

Anal fissure is one of the most common benign anorectal disorders encountered in surgical practice, characterized by severe anal pain and bleeding during defecation, with a significant impact on quality of life [1, 2]. Chronic fissure is associated with hypertonia of the internal anal sphincter and reduced anodermal blood flow [3]. Although lateral internal sphincterotomy provides high healing rates, postoperative continence disorders have been reported [4–7]. Consequently, sphincter-preserving strategies such as fissurectomy have gained increasing interest [8–12].

Materials and Methods

This retrospective monocentric descriptive study was conducted in the Service of Proctologic Surgery, Mohammed V Military Teaching Hospital (HMIMV), Rabat. All consecutive patients operated on for anal fissure between November 1 and December 31, 2025 were included.

RESULTS

Posterior chronic fissure was the predominant presentation. Sentinel skin tags and hemorrhoidal disease were frequently associated. No perioperative complications were observed.

Table 1: Baseline characteristics and fissure features

Variable	Result
Number of patients	20
Mean age (years)	~44
Posterior fissure	>80%
Chronic fissure	Majority
Sentinel skin tag	Frequent
Associated hemorrhoids	Common
Complicated fissure (abscess/fistula)	Selected cases

Table 2: Surgical procedures performed

Procedure	Frequency
Fissurectomy	100%
Sentinel skin tag excision	Frequent
Hemorrhoidal ligation/mucopexy	Common
Anoplasty	Selected cases
Fistula surgery / seton	Selected cases

DISCUSSION

This retrospective descriptive study reports our institutional experience in the surgical management of anal fissures in a tertiary proctologic surgery service. Our results provide insight into real-life surgical practice, highlighting the complexity of anal fissure disease and supporting an individualized, sphincter-sparing approach.

First, our findings confirm that anal fissure is rarely an isolated condition. In our cohort, a large proportion of patients presented with associated anorectal lesions, including sentinel skin tags and hemorrhoidal disease. This observation is consistent with previous reports describing chronic anal fissure as a multifactorial disease rather than a simple anodermal tear [1, 2]. Chronic inflammation, fibrosis, and repetitive trauma contribute to disease persistence and symptom severity.

Sentinel skin tags were frequently observed in our patients and represent a well-recognized marker of chronicity. Histologically, these lesions correspond to fibrotic and inflammatory tissue resulting from prolonged local ischemia and sphincter hypertonia [3]. Their excision during fissurectomy was systematic in our practice and did not result in increased perioperative morbidity. This approach is supported by previous surgical series reporting improved local conditions for healing after removal of chronic inflammatory tissue [4, 5].

Another important finding of our study is the frequent association between anal fissure and hemorrhoidal disease. Both conditions share common risk factors such as chronic constipation, increased anal pressure, and straining during defecation [6]. In our experience, combined surgical management addressing both the fissure and associated hemorrhoidal disease during the same operative session was feasible and safe.

Historically, lateral internal sphincterotomy (LIS) has been considered the gold standard surgical treatment for chronic anal fissure, with reported healing rates exceeding 90% [7]. However, concerns regarding postoperative continence disorders have increasingly questioned its systematic use. Several studies and meta-analyses have documented varying rates of minor fecal or flatus incontinence following LIS, particularly in women and elderly patients [8, 9].

In this context, sphincter-preserving strategies such as fissurectomy have gained renewed interest. Comparative studies have shown that fissurectomy may achieve acceptable healing rates with a potentially lower risk of continence impairment when compared with LIS [10, 11]. Our institutional strategy deliberately avoided systematic sphincterotomy, favoring a fissurectomy-based approach combined with tailored treatment of associated lesions.

Recent international guidelines emphasize the importance of individualized decision-making in the management of anal fissures [12]. Our experience aligns with this contemporary philosophy.

The main limitations of this study include its retrospective design, limited sample size, and absence of long-term functional

follow-up. Nevertheless, it reflects real-world practice in a tertiary referral center.

Ethics Approval and Consent to Participate

This study was conducted in accordance with institutional ethical standards. Given its retrospective and observational nature, formal ethical committee approval was not required. Patient confidentiality was strictly respected.

Consent for Publication

Written informed consent was obtained from patients for the use of anonymized clinical data for research and publication purposes.

Availability of Data and Materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Competing Interests: The authors declare that they have no competing interests.

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Authors' Contributions

AH contributed to study conception, data collection, surgical management, and manuscript drafting. All authors critically revised the manuscript and approved the final version.

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REFERENCES

1. Nelson, R. L. (2014). Chronic anal fissure. *BMJ*, 348:g2735. doi:10.1136/bmj.g2735.
2. Lindsey, I., Jones, O. M., Cunningham, C., & Mortensen, N. J. (2004). Chronic anal fissure. *Br J Surg*, *91*(3), 270–279. doi:10.1002/bjs.4473.
3. Schouten, W. R., Briel, J. W., & Auwerda, J. J. (1994). Relationship between anal pressure and anodermal blood flow in chronic anal fissure. *Dis Colon Rectum*, *37*(7), 664–669. doi:10.1007/BF02054415.
4. Goligher, J. C. Surgery of the Anus, Rectum and Colon. 5th ed. London: Baillière Tindall; 1984.
5. García-Aguilar, J., Belmonte, C., Wong, W. D., Lowry, A., & Madoff, R. D. (1996). Open versus closed sphincterotomy for chronic anal fissure. *Dis Colon Rectum*, *39*(4), 440–443. doi:10.1007/BF02054053.
6. Nelson, R. L., & Chattopadhyay, A. (2007). Sphincterotomy for anal fissure: a systematic review. *Dis Colon Rectum*, *50*(6), 847–856. doi:10.1007/s10350-006-0856-7.
7. Arroyo, A., Pérez-Vicente, F., Serrano P, *et al*., (2004). Long-term results of lateral internal sphincterotomy for chronic anal fissure. *Int J Colorectal Dis*, *19*(3), 259–263. doi:10.1007/s00384-003-0554-0.
8. Giordano, P., & Gravante, G. (2009). Surgical treatment of chronic anal fissure: fissurectomy versus sphincterotomy. *Int J Colorectal Dis*, *24*(2), 143–147. doi:10.1007/s00384-008-0605-3.
9. Lohsiriwat, V. (2012). Hemorrhoids: from basic pathophysiology to clinical management. *World journal of gastroenterology: WJG*, *18*(17), 2009-2017. doi:10.3748/wjg.v18.i17.2009.
10. Garg, P. (2016). Conservative and surgical management of chronic anal fissure: a systematic review. *World J Gastrointest Surg*, *8*(1), 33-40. doi:10.4240/wjgs.v8.i1.33.
11. Stewart Sr, D. B., Gaertner, W., Glasgow, S., Migaly, J., Feingold, D., & Steele, S. R. (2017). Clinical practice guideline for the management of anal fissures. *Diseases of the Colon & Rectum*, *60*(1), 7-14. doi:10.1097/DCR.0000000000000735.
12. Emile, S. H., Elfeki, H., Shalaby, M., & Sakr, A. (2021). Sphincter-preserving procedures for chronic anal fissure: a systematic review and meta-analysis. *Int J Surg*, 92, 106021. doi: 10.1016/j.ijsu.2021.106021.