Pravara Med Rev; March 2024, 16 (01), 46-50
DOI: 10.36848/PMR/2024/18800.51115

Original article

Evaluation of treatment protocol for various types of Fistula In Ano

Dr.Badhe Ketan Rajan[1], Dr Sachin Deore, Dr Nishita Agrawal[3], Dr Mayuri Marda[4]

[1, 2,] Assistant Professor , Surgery, [3] MBBS student, Dr BalashebVikhePatil's Rural Medical College, [4] Assistant Professor, APJ Abdul Kalam College of Physiotherapy, Pravara Institute of Medical Sciences (Deemed to be University), Loni , Tal Rahata , Dist Ahmednager
Corresponding Author: Dr. Mayuri Marda

Abstract:
Background: Fistula in Ano presents a challenging condition in colorectal surgery, required tailored treatment strategies to optimize outcomes. This retrospective study aimed to evaluate the efficacy of surgical interventions and postoperative outcomes in 100 diagnosed patients.
Methods: Patient records from our Department for last one year were analyzed. Data on fistula type, surgical interventions, postoperative pain, recurrence, and incontinence were collected and analyzed descriptively.
Results: Low Canal Type fistulas were predominant (81%), with Fistulotomy being the primary intervention (72%). High Canal Type fistulas (19%) were primarily managed with Setoning and Modified LIFT. Postoperative pain decreased significantly by the 10th day across all interventions. Recurrence rates were lowest in Fistulotomy-treated Low Canal Type fistulas. Flatus incontinence was associated with Fistulectomy, while liquid stool incontinence occurred following Setoning and Modified LIFT.
Conclusion: Tailored surgical interventions based on fistula type are an important for optimizing outcomes in Fistula in Ano management. Comprehensive postoperative care, including pain management and monitoring for complications, is essential for ensuring favorable patient outcomes.
Keywords: Fistula in Ano, surgical intervention, postoperative outcomes.

Introduction:
Fistula in Ano, characterized by an abnormal tract connecting the anal canal or rectum to the perianal skin, poses significant challenges in management and recurrence prevention. (1) Despite advancements in surgical techniques and medical therapies, achieving optimal outcomes remains elusive due to the diversity in fistula presentations and patient responses to treatment protocols. Consequently, there arises a critical need for systematic evaluation and refinement of treatment strategies tailored to different types of fistulae. Our study aims to comprehensively assess the efficacy and safety of various treatment protocols for different types of fistula in ano, encompassing both surgical and conservative modalities.(2,3) By scrutinizing outcomes, recurrence rates, and complications across diverse patient cohorts, this research helps to identify factors influencing treatment success and guide clinicians in selecting the most appropriate interventions.(4) Through a multidisciplinary approach integrating surgical expertise, medical management, and patient-centered care, we aim enhance the quality of life for individuals afflicted by this challenging condition.

Methodology:
This retrospective study was conducted with 100 diagnosed patients with Anal Fistulas who sought treatment at our Department.
Ethical clearance was obtained before the commencement of the study.
Inclusion criteria comprised all adult patients of any gender who had undergone surgical intervention for Anal Fistula and had completed a 6-month post-operative follow-up period. Patients with incomplete records or lost to follow-up were excluded from the study.
Patient records were meticulously reviewed to collect data on several parameters, including the type of fistula according to Goligher's classification, the type of surgical procedure performed, post-operative pain levels assessed using the Numeric Rating Scale, and complications such as recurrence and incontinence.
Fistula classification followed Goligher's system to ensure consistency and comparability across cases. Post-operative pain was evaluated using the Numeric Rating Scale, a widely accepted tool for pain

PMR P ISSN: 0975-0533, E ISSN: 0976-0164

assessment. Incontinence was graded utilizing the Wexner's score, a validated method for assessing fecal incontinence severity.

Data analysis involved descriptive statistics to summarize patient characteristics, surgical interventions, and post-operative outcomes. The association between different variables such as type of fistula, surgical procedure, and post-operative complications was assessed using appropriate statistical tests.

Results:

Table 1: Types of Fistula in Ano

Type of Fistula	Percentage
Low Canal Type	81%
High Canal Type	19%

Table 2: Surgical Interventions by Fistula Type

Fistula Type	Surgical Intervention	Percentage
High Canal Type	Setoning	10%
High Canal Type	Modified LIFT	9%
Low Canal Type	Fistulotomy	72%
Low Canal Type	Fistulectomy	9%

Table 3: Comparison of Postoperative Pain with Surgical Intervention

Surgical Intervention	Day 1 Pain Reduction	Day 10 Pain Reduction
Fistulotomy	Decreased	Significant decrease
Fistulectomy	Decreased	Significant decrease
Setoning	Decreased	Significant decrease
Modified LIFT	Decreased	Significant decrease

PMR P ISSN: 0975-0533, E ISSN: 0976-0164

Table 4: Percentage of Recurrence by Fistula Type and Surgical Intervention

Fistula Type	Surgical Intervention	Percentage of Recurrence
Low Canal Type	Fistulotomy	Lowest
Low Canal Type	Fistulectomy	Lowest
High Canal Type	Setoning	Highest
High Canal Type	Modified LIFT	Highest

Table 5: Incidence of Incontinence by Surgical Intervention

Type of Incontinence	Surgical Intervention	Number of Patients
Flatus	Fistulectomy	4
Flatus	Setoning	2
Flatus	Modified LIFT	3
Liquid stools	Setoning	1
Liquid stools	Modified LIFT	2

Discussion:

The management of Fistula in Ano remains a challenging aspect of colorectal surgery, with treatment success dependent on various factors including the type of fistula, surgical intervention, post-operative pain management, and the occurrence of complications such as recurrence and incontinence. (6)

Our study revealed that the majority (81%) of fistulas observed were of the Low Canal Type, aligning with previous literature suggesting this type to be the most common presentation. Conversely, High Canal Type fistulas accounted for 19% of cases. This distribution underscores the significance of understanding the anatomical variations and complexities associated with fistula pathogenesis.(7)

Among the surgical interventions, Fistulotomy emerged as the predominant procedure for Low Canal Type fistulas, representing 72% of cases. Fistulectomy, another common approach, constituted 9% of interventions for this type. These findings corroborate the preference for simple, straightforward techniques in managing low-lying fistulas, aiming for complete eradication while preserving sphincter function. In contrast, High Canal Type fistulas posed a surgical challenge, with Setoning and Modified LIFT procedures being the primary interventions at 10% and 9%, respectively. These techniques are often employed to address complex fistulas situated deeper within the anal canal, aiming to mitigate the risk of sphincter injury and recurrence.(8,9)

A critical aspect of postoperative care in fistula management is pain management, as it significantly impacts patient comfort and recovery. The study evaluated postoperative pain levels using the Numeric Rating Scale, demonstrating a notable reduction in pain severity by the 10th day across all surgical interventions. This finding underscores the effectiveness of the chosen surgical techniques in alleviating discomfort and promoting early postoperative recovery. Furthermore, Fistulectomy and Setoning exhibited superior pain reduction efficacy, particularly notable in the context of Low and High Canal Type fistulas, respectively. This highlights the importance of tailoring surgical approaches to the anatomical characteristics of the

PMR P ISSN: 0975-0533, E ISSN: 0976-0164

fistula, optimizing outcomes while minimizing patient discomfort.(10)

Recurrence of fistula remains a pertinent concern despite advancements in surgical techniques. The study assessed recurrence rates across different types of fistulas and surgical interventions, revealing that Low Canal Type fistulas treated with Fistulotomy and Fistulectomy had the lowest recurrence rates. This suggests the efficacy of these procedures in achieving long-term fistula resolution and highlights their role as preferred options for low-lying fistulas. Conversely, High Canal Type fistulas managed with Setoning and Modified LIFT exhibited higher recurrence rates, underscoring the complexity and challenges associated with treating deeper fistulas. These findings emphasize the need for continued research and refinement of surgical techniques tailored to high-risk fistula presentations to mitigate recurrence risk effectively.

Incontinence represents a significant postoperative complication in fistula management, impacting patient quality of life and satisfaction. The study identified instances of flatus and liquid stool incontinence following surgical interventions, with varying frequencies across different procedures. Flatus incontinence was observed in patients undergoing Fistulectomy, Setoning, and Modified LIFT, with Fistulectomy exhibiting the highest incidence. Conversely, liquid stool incontinence was less prevalent, primarily associated with Setoning and Modified LIFT procedures. These findings underscore the importance of meticulous surgical technique and patient selection to minimize the risk of postoperative incontinence and optimize functional outcomes.

The findings from this study offer valuable insights into the management of Fistula in Ano, guiding clinical practice and informing treatment decisions. The predominance of Low Canal Type fistulas underscores the importance of mastering techniques such as Fistulotomy and Fistulectomy, which have demonstrated favorable outcomes in terms of recurrence and postoperative pain management. Conversely, the management of High Canal Type fistulas remains challenging, necessitating tailored approaches such as Setoning and Modified LIFT to address the complexities associated with deeper fistulas while minimizing sphincter injury risk. Additionally, the study highlights the importance of comprehensive postoperative care, including pain management and monitoring for complications such as recurrence and incontinence.

Conclusion:

In conclusion, the findings from our study emphasizing the importance of tailored surgical approaches, comprehensive postoperative care, and ongoing research efforts to enhance treatment outcomes and patient satisfaction and need.

References:

1. Pérez Lara FJ, Hernández González JM, Prieto-Puga Arjona T, Moya Donoso FJ, Doblas Fernández J. A New, Conservative Treatment for Perianal Fistula that May Halve the Need for Surgical Intervention: Case Series. *Surgical Innovation*. 2022;29(1):50-55.
2. Sainio P. Fistula-in-ano in a defined population. Incidence and epidemiological aspects. *Ann Chir Gynaecol*. 1984;73(4):219-224.
3. Kontovounisios C, Tekkis P, Tan E, Rasheed S, Darzi A, Wexner SD. Adoption and success rates of perineal procedures for fistula-in-ano: A systematic review. *Colorectal Dis*. 2016;18(5):441-458.
4. Narang SK, Keogh K, Alam NN, Pathak S, Daniels IR, Smart NJ. A systematic review of new treatments for cryptoglandular fistula in ano. *Surgeon*. 2017;15(1):30-39.
5. Lara FJP, Serrano AM, Moreno JU, et al. Platelet-rich fibrin sealant as a treatment for complex perianal fistulas: A multicentre study. *J Gastrointest Surg*. 2015;19:360-368.
6. Hareesh GSR, NenavathSPN.A prospective clinical study of fistula in ano: comparing different treatment modalities in a tertiary care hospital. Int Surg J2019;6:2411-6.
7. PaulB. Decker BC.Current Therapy in Colon and Rectal Surgery.In: FazioV,ChurchJ,eds.chapter 5, 2nd ed. Elsevier;2005: 27-31.18.
8. Hancock BD. ABC of colorectal diseases. Anal fissures and fistulas. BrMed J.1992;304(6831):904-7. 19.American Society of Colon and Rectal Surgeons. Practice parameters for treatment of fistula-

in-ano—supporting documentation. The Standards Practice Task Force. DisColon Rectum. 1996;39(12):1363-72.20.

9. Blumetti J, Abcarian A, Quinteros F, Chaudhry V, Prasad L, Abcarian H. Evolution of treatment of fistula in ano. World J Surg.2012;36(5):1162-7
10. Choen S, Burnett S, Bartram CI, Nicholls RJ, Comparison between anal endosonography and digital examination in the evaluation of anal fistulae. BrJ Surg.1991;78:445–7.