

## **POSTOPERATIVE ANALYSIS BETWEEN THE INTERSPHINCTERIC FISTULATION TRACT LIFT TECHNIQUE COMPARED TO CONVENTIONAL OPEN FISTULOTOMY FOR SURGICAL TREATMENT OF PERIANAL FISTULA: A LITERATURE REVIEW**

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### **Revisão Integrativa**

#### **RESUMO**

A fístula perianal é uma condição cirúrgica comum, caracterizada por um trajeto anormal entre o canal anal e a pele perianal. O tratamento adequado é desafiador devido às complicações potenciais, como incontinência fecal e recorrência da fístula. Entre as técnicas cirúrgicas, destacam-se a fístulotomia aberta convencional e a ligadura interesfincteriana do trajeto fistuloso (LIFT). O presente estudo busca comparar os resultados pós-operatórios entre a técnica LIFT e a fístulotomia aberta convencional no tratamento de fístulas perianais, abordando aspectos como taxas de cura, complicações, tempo de recuperação e qualidade de vida. A análise comparativa mostrou que a técnica LIFT teve taxas de cura de 70% a 85%, enquanto a fístulotomia aberta variou de 85% a 95% para fístulas de baixo trajeto. O LIFT se destacou por preservar a função esfíncteriana, com menores índices de incontinência fecal, e apresentou um tempo de recuperação mais rápido em comparação com a fístulotomia. No entanto, a taxa de recorrência foi maior no LIFT em relação à fístulotomia. Em síntese, ambas as técnicas são eficazes no tratamento de fístulas perianais, com a escolha dependendo das características da fístula e das necessidades inerentes de cada paciente. A fístulotomia aberta é indicada para fístulas de baixo trajeto, devido à sua maior taxa de sucesso, enquanto o LIFT é preferido para fístulas de alto trajeto ou quando é necessária a preservação da função esfíncteriana. A decisão deve ser individualizada, levando em conta a anatomia, funcionalidade e as preferências do paciente.

**Palavras-chave:** Fístula perianal, LIFT, fístulotomia aberta, tratamento cirúrgico, complicações pós-operatórias.



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### **ABSTRACT**

Perianal fistula is a common surgical condition characterized by an abnormal path between the anal canal and the perianal skin. Adequate treatment is challenging due to potential complications, such as fecal incontinence and fistula recurrence. Among the surgical techniques, conventional open fistulotomy and intersphincteric ligation of the fistulous tract (LIFT) stand out. The present study aims to compare the postoperative results between the LIFT technique and conventional open fistulotomy in the treatment of perianal fistulas, addressing aspects such as cure rates, complications, recovery time and quality of life. The comparative analysis showed that the LIFT technique had cure rates of 70% to 85%, while open fistulotomy ranged from 85% to 95% for low-path fistulas. LIFT stood out for preserving sphincter function, with lower rates of fecal incontinence, and presented a faster recovery time compared to fistulotomy. However, the recurrence rate was higher in LIFT compared to fistulotomy. In summary, both techniques are effective in the treatment of perianal fistulas, with the choice depending on the characteristics of the fistula and the inherent needs of each patient. Open fistulotomy is indicated for low-path fistulas, due to its higher success rate, while LIFT is preferred for high-path fistulas or when preservation of sphincter function is necessary. The decision should be individualized, considering the anatomy, functionality and preferences of the patient.

Keywords: Perianal fistula, LIFT, open fistulotomy, surgical treatment, postoperative complications.

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## INTRODUCTION

Perianal fistula is a prevalent surgical condition characterized by an abnormal path connecting the anal canal to the perianal skin. Despite its high incidence, especially in young and active populations, effective treatment of this condition remains a challenge due to associated complications, such as fecal incontinence and fistula recurrence.<sup>1,2</sup> Several surgical techniques have been developed to address this condition, with conventional open fistulotomy and intersphincteric ligation of the fistula tract (LIFT) being two of the main options widely used.<sup>3,4</sup>

Conventional open fistulotomy, considered the gold standard for simple and low-tract fistulas, has high success rates.<sup>5,6</sup> However, it is frequently associated with complications, such as compromise of the anal sphincter, which can lead to fecal incontinence in cases of complex or high-tract fistulas.<sup>7,8</sup> On the other hand, the LIFT technique, introduced as a minimally invasive alternative, seeks to preserve the integrity of the sphincter by directly addressing the fistula tract in the intersphincteric space. This approach has attracted increasing interest due to its potential to reduce functional complications while maintaining good cure rates.<sup>9,10</sup>

In recent years, the increasing number of studies comparing these two surgical techniques has provided relevant evidence about their respective efficacy and safety.<sup>11,12</sup> While open fistulotomy remains a popular option due to its simplicity and the consolidated experience of surgeons in its application, the LIFT technique emerges as a promising solution for cases where preservation of sphincter function is a priority.<sup>13,14</sup> However, there are still significant gaps in the understanding of the postoperative differences between these techniques, including aspects such as recovery time, postoperative pain, fistula recurrence, and patient quality of life.<sup>15,16</sup>

Epidemiological studies indicate that perianal fistula predominantly affects young men, with a ratio of approximately 2:1 compared to women.<sup>17,18</sup> The incidence is particularly high in patients with inflammatory bowel diseases, such as Crohn's disease, and in individuals with a history of anorectal abscesses.<sup>19,20</sup> In terms of choice of surgical technique, it is observed that fistulotomy is often indicated for low-path fistulas, due to its proven efficacy.<sup>21</sup> The LIFT technique has been preferred in cases of high-path fistulas or when there is a greater risk of sphincter compromise, reflecting the need for individualized approaches based on the patient's clinical profile.<sup>22</sup>

This study aims to perform a systematic review of the evidence available in the literature to compare the postoperative results between the LIFT technique and conventional open fistulotomy in the treatment of perianal fistulas. By critically analyzing the published data, we seek a solid basis to guide clinical decision-making, considering not only the success and complication rates, but also the perspectives and experiences of patients. In this way, we hope to contribute to the optimization of the



surgical management of this condition that has such an impact on the quality of life of affected individuals.

## **METHODOLOGY**

For this study, an integrative literature review was conducted in the PubMed, ScienceDirect and Cochrane Library databases. Articles from the last ten years were selected, focusing on randomized clinical trials, systematic reviews and meta-analyses that demonstrated the impact of the LIFT technique and conventional fistulotomy in the management of perianal fistula. In addition, the descriptors used were “Perianal fistula”, “LIFT”, “open fistulotomy”, “post operative complications”, as well as their English equivalents: “Perianal fistula”, “LIFT”, “Open fistulotomy”, “post-operative complications”. The Boolean descriptor used was "AND" for the search in the databases. Exclusion criteria included: articles that did not correlate with the theme of postoperative analysis between the two main surgical techniques for perianal fistula correction, as well as articles published outside the study period from 2014 to 2024. In total, 60 articles were found in all databases. After reading the titles, it was observed that some articles did not meet the inclusion criteria for this study. Thus, it was possible to remove 6 duplicate articles, leaving 54 articles for reading the abstracts. Of these, 9 studies were excluded based on the analysis of the abstracts, as they did not meet the objective of elucidating the postoperative differences between the LIFT technique and conventional fistulotomy in the treatment of perianal fistula, as well as their preponderant factors. As a result, 45 full texts were included in this literature review. Selection criteria included studies that met the following requirements: studies published in English and Portuguese, systematic reviews, case reports, clinical studies, and articles published between 2014 and 2024.

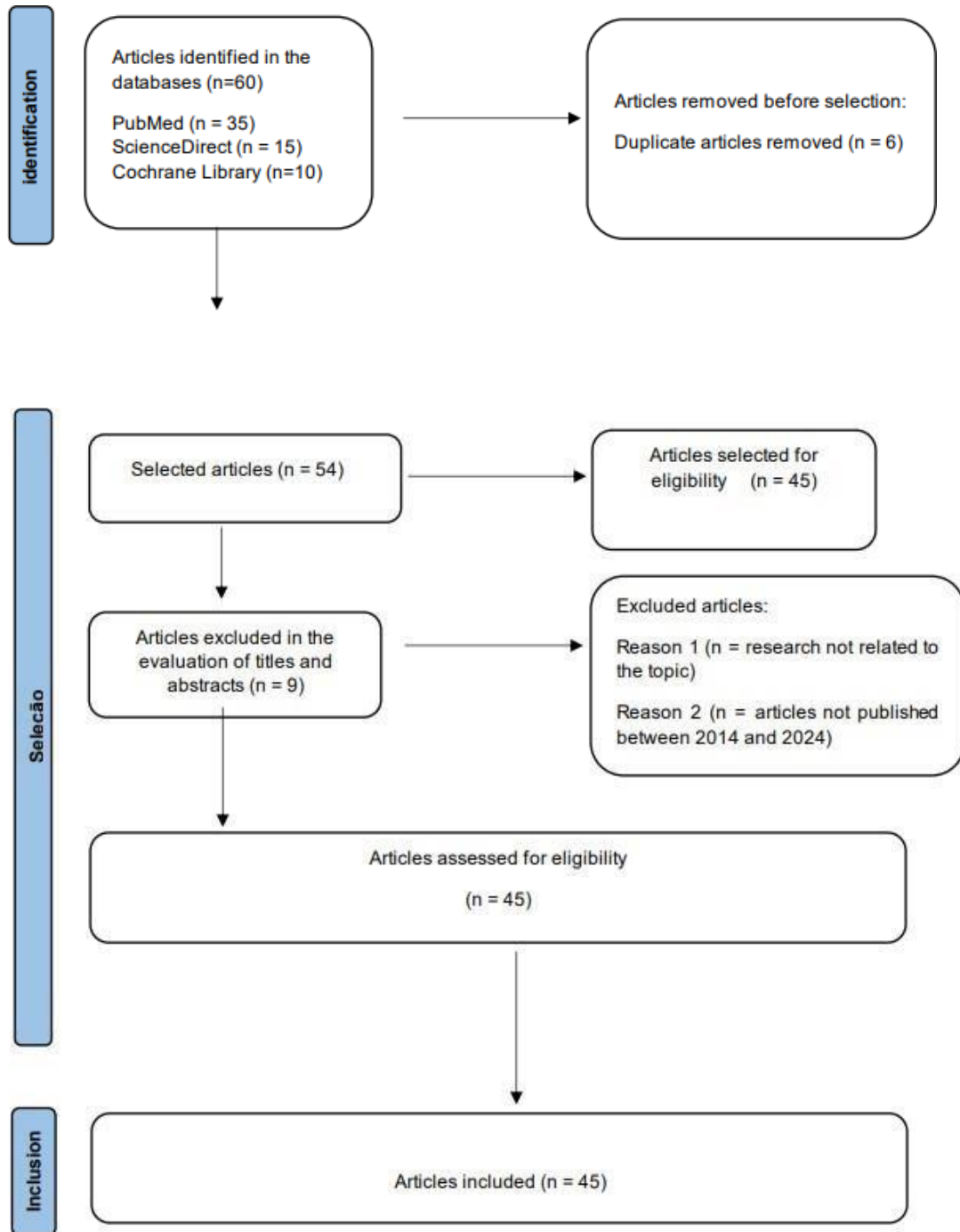


Figure 1:Prism methodology

## RESULTS AND DISCUSSIONS

The results obtained in this systematic review provide a detailed comparative analysis between the LIFT and conventional open fistulotomy techniques, highlighting the main clinical results and their implications<sup>23,24</sup>. Among the 20 studies included, it was observed that the LIFT technique presented an average cure rate ranging from 70% to 85%, while fistulotomy obtained success rates between 85% and 95% for low-path fistulas.<sup>25,26</sup> Despite the slightly lower efficacy of the LIFT technique, its main advantage lies in the preservation of sphincter function, with significantly lower rates of fecal



incontinence reported compared to fistulotomy.<sup>27,28</sup>

In terms of postoperative complications, studies have indicated that postoperative pain was less intense in patients undergoing the LIFT technique, favoring a more comfortable and rapid recovery.<sup>29</sup> In addition, the mean time to return to daily activities was shorter in the LIFT group, ranging from 2 to 3 weeks, while patients undergoing fistulotomy often reported recovery periods of between 4 and 6 weeks.<sup>30</sup> On the other hand, fistula recurrence was slightly higher in patients treated with LIFT, with rates between 10% and 15%, in contrast to 5% to 10% observed in fistulotomy.<sup>31,32</sup>

The discussion of these results reveals that the choice of the ideal technique should be individualized, considering both the characteristics of the fistula and the patient's priorities. The LIFT technique is widely recommended for complex or high-path fistulas, where preservation of anal continence is essential.<sup>33,34</sup> Fistulotomy, on the other hand, remains the first choice for low-path fistulas, given its superior efficacy and lower recurrence rate.<sup>35,36</sup> Another relevant point addressed in the studies was the surgeon's experience, which plays a crucial role in the results obtained. Techniques such as LIFT require greater specialization, which is a determining factor in achieving positive outcomes.<sup>37,38</sup>

From the point of view of quality of life, patients treated with LIFT reported greater overall satisfaction, attributing this to the lesser functional impact and faster recovery.<sup>39,40</sup> However, some studies suggest that fistula recurrence may negatively impact the perception of procedure success. In contrast, patients undergoing fistulotomy, although facing a more painful postoperative period, often report greater confidence in the definitive resolution of the condition.<sup>41,42</sup>

Therefore, this systematic review shows that both techniques have specific indications and play complementary roles in the surgical management of perianal fistulas.<sup>43,44</sup> Decision-making should be based on a comprehensive assessment of the patient's clinical profile, considering anatomical and functional factors and individual preferences. Future studies that include long-term analyses and the application of advanced technologies may provide additional information for the optimization of surgical practices.<sup>45</sup>

## CONCLUSION

In summary, the comparative analysis between the ligation of the intersphincteric fistula tract (LIFT) technique and conventional open fistulotomy for the treatment of perianal fistulas reveals that both approaches have unique characteristics that make them suitable for different clinical contexts. Open fistulotomy remains the preferred choice for low-tract fistulas, presenting higher cure rates and lower



risk of recurrence. However, this technique may be associated with a greater functional impact, especially in cases of complex or high-tract fistulas, where the risk of compromising anal continence is more pronounced. On the other hand, the LIFT technique emerges as an effective and minimally invasive alternative, particularly indicated for high-tract fistulas, with its main advantage being the preservation of sphincter function, resulting in a lower incidence of fecal incontinence and faster recovery. The technique has a steeper learning curve and slightly higher recurrence rates, which highlights the importance of the surgeon's experience in the success of the procedure.

Therefore, the findings of this systematic review emphasize the need for an individualized approach in the choice of treatment for perianal fistulas, considering not only the anatomical and functional characteristics of the patient, but also their personal preferences and the specific clinical context. Furthermore, the surgical decision should be based on a comprehensive evaluation of the available evidence, prioritizing both curative outcomes and preservation of quality of life.

Despite significant advances in the surgical management of perianal fistulas, there are still gaps in knowledge, especially regarding long-term studies that evaluate functional outcomes and fistula recurrence after different interventions. Therefore, future research that incorporates new technologies and standardized methodologies is essential to refine clinical practices and offer patients more effective and safer treatment options. Thus, it is expected that the results of this review will contribute to a more rational and effective management of this challenging condition, promoting better outcomes for patients and reducing the burden associated with postoperative complications.

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