

Effect of lateral sphincterotomy on fecal and flatus incontinence

Faisal Siddiqi, Mirza Arshad Beg, Aisha Qamar, Areeba Abdullah

Abstract:

Introduction and Rationale: Lateral internal sphincterotomy is an effective treatment for chronic anal fissures; however, the risk of “incontinence” has generated interest in pharmacologic approaches that are far less effective and may be poorly tolerated. This study was done to objectively define the risk of incontinence with sphincterotomy using the fecal incontinence severity index and assess the implications for quality of life using the fecal incontinence quality of life scale. This study was undertaken to obtain local data as there is little available local data. This would help in better counselling of patients and would serve as an impetus for further research on subject

Objective: To assess the frequency of fecal incontinence and flatus incontinence in patients undergoing sphincterotomy.

Material and Methods: This study was designed to assess the long-term outcomes and quality of life of patients who have under-gone lateral sphincterotomy for chronic anal fissure. The medical records of patients who under-went this operation between 2015-2016 were reviewed. A questionnaire was filled by contacting patients on phone to assess their current status, along with the fecal incontinence and stool incontinence.

Study design: Retrospective cohort study

Settings: Department of general Surgery, Liaquat National Hospital and Medical College
Duration of study: From January 2015 to December 2016, **Sample Size:** After checking with the records a total of 60 patients were operated during the study period. Out of which 39 patients responded and gave consent for being part of the study.

Data collection: The inpatient and OPD record were reviewed of all the patients from January 2015 to December 2016 and were interviewed. The complete data of individual patients was collected and computed .

Results: A total of 60 patients were recruited after fulfilling the inclusion criteria. After initial information a total of 39 patients agreed to the research proposal and were interviewed, 27 males and 12 females. The largest group of patients were from 35-40 years age group with minimum 19 and maximum 60 years old. A total of 30% of patients reported as having occasional flatulence incontinence. 32% of patients reported occasional stool incontinence . None of the respondents reported total incontinence. None of the respondents reported total loss of anal function. There were no recurrences.

Conclusion: Flatulence and fecal incontinence after lateral sphincterotomy is a serious issue . Quality of life issues need to be addressed in further studies .

Keywords: Flatulence incontinence, Lateral sphincterotomy, fecal stool incontinence

Introduction: Lateral internal sphincterotomy is an effective treatment for chronic anal fissures; however, the risk of “incontinence” has generated interest in pharmacologic approaches that are far less effective and may be poorly tolerated. This study was done to objectively define the risk of incontinence with lateral sphincterotomy using

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the fecal incontinence severity index and assess the implications for quality of life using the fecal incontinence quality of life scale.

Lateral internal sphincterotomy is an operation performed on the internal anal sphincter muscle for the treatment of chronic anal fissure.¹ The internal anal sphincter is one of two muscles that comprise the anal sphincter which controls the passage of feces. The procedure helps by lowering the resting pressure of the internal anal sphincter, which improves blood supply to the fissure and allows faster healing. The procedure has been shown to be very effective, with 96% of fissures healing at a median of 3 weeks in one trial¹⁻³ lateral internal sphincterotomy is the preferred method of surgery for persons with chronic anal fissures, and is generally used when medical therapy has failed. It is associated with a lower rate of side effects than older techniques such as posterior internal sphincterotomy and anoplasty and has also been shown to be superior to topical glyceryltrinitrate (GTN 0.2% ointment) in long term healing of fissures, with no difference in fecal continence. Minor fecal incontinence and difficulty controlling flatulence are common side effects following surgery. Persistent minor fecal incontinence has been reported in 1.2% to 3.5% of patients; however, this does not appear to be significantly different to the rate of minor fecal incontinence experienced by patients treated with topical GTN.⁴⁻⁶

lateral sphincterotomy may damage the anal sphincters or nerves, leading to bowel incontinence, Fecal incontinence (FI), also known as anal incontinence, or in some forms encopresis, is a lack of control over defecation, leading to involuntary loss of bowel contents—including flatus (gas), liquid stool elements and mucus, or solid feces. Incontinence can result from different causes and might occur with either constipation or diarrhea.¹⁰⁻¹² Continence is maintained by several inter-related factors, including the anal sampling mechanism, and usually there is more than one deficiency of these mechanisms for incontinence to develop. An estimated 2.2% of community dwelling adults are affected.¹³⁻¹⁵

Rational of study: This study was undertaken to obtain local data as there is little available local data . This would help in better counselling of patients and would serve as an impetus for further research on subject .

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Operational definitions:

Anal fissure: It is a tear in anoderm distal to dentate line.

Lateral sphincterotomy: It is the surgery performed on internal anal sphincter for the treatment of chronic anal fissure.

Fecal incontinence: It is the inability to control bowel movements, causing stool to leak unexpectedly from the anus.

Incontinence ranges from an occasional leakage of stool while passing to a complete loss of bowel control

Material and Methods:

This study was designed to assess the long-term outcomes and quality of life of patients who have undergone a sphincterotomy for chronic anal fissure. The medical records of patients who underwent this operation between 2015-2016 were reviewed. A questionnaire was filled by contacting patients on phone to assess their current status, along with the fecal incontinence and stool incontinence

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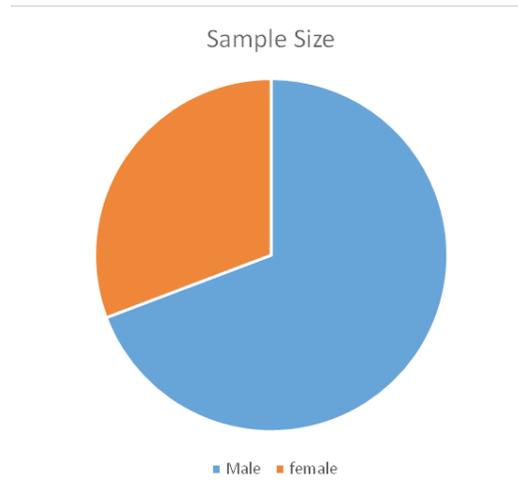


Fig. 1:

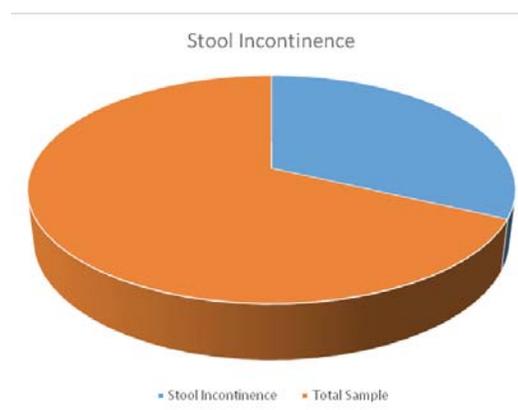


Fig. 2:

Inclusion criteria: Male and female age 15 years to 60 years are included in the study. we also included patients with chronic anal fissure and patient with acute anal fissure who failed to respond to conservative management

Exclusion criteria: we excluded the patients with acute untreated anal fissures and patient with generalized condition affecting patient's perianal conditions like decreased mobilization. we also excluded the patient who had with local condition affecting perianal condition like fistula in ano, perianal abscess or malignant conditions

Data collection procedure: The inpatient and OPD record were reviewed of all the patients from January 2015 to Dec 2016 and were interviewed. The complete data of individual patients was collected and computed.

Results:

A total of 60 patients were recruited after fulfilling the inclusion criteria. After initial information a total of 39 patients agreed to the research proposal and were interviewed, 27 males and 12 females (figure-1). The largest group of patients were from 35-40 years age group with minimum 19 and maximum 60 years old. A total of 30 % of patients reported as having occasional flatulence incontinence. 32% of patients reported occasional stool incontinence (figure-2). None of the respondents reported total incontinence. None of the respondents reported total loss of anal function. There were no recurrences.

Discussion:

The study has the proportion of male patients at 73%. This is in concordance with a study by Nighat et al which included a sample size of 94 patients having 86% males. This might go on to state that there is a higher proportion of male patients in our part of the world as compared to the West which shows studies with almost equal proportions or the groups are not as diversified. In our study the mean age group came out to be 39 years which shows that the disease is more prevalent among the middle aged group, which maybe due to the life style and is a topic for further research. The mean age is in concordance to a study by Liang et al² which propagated similar age group. In our study the sample size is comparable to a few studies in the West and done locally. This is a small sample size and a definite drawback of this study. In our study 32% of patients reported either stool or flatulence incontinence. This is in conjunction with the other studies. The various studies done on the subject give differing values for incontinence. From as low as 1% in Liang et al to as high as 23% by Nyam et.al.² However there is a need for a larger sample size in order to establish a definite relation between incontinence and lateral sphincterotomy procedure. None of the patient described a total incontinence or recurrence. A study by Casillas et al¹ has described the recurrence rate to be 5.6%. It could be argued that lateral sphincterotomy is though a safe procedure but could lead to long term mild incontinence among patients. This

could also serve as an impetus towards finding more cost effective procedures for the problem of anal fissure management. In a study by Ammari et al⁶ recurrence has not been studied but the incontinence rate is described to be 25%. There has been no report of a full anal incontinence. There could be other factors which may be taken into consideration for incontinence after the procedure. The small sample size and retrospective method of the study may be taken as a draw-back of the study, however the data collection method may be modified so as to enable a more thorough account of the actual problem. Having said that this study gives an insight into a major issue and can be an impetus for further research.

Conclusion:

Flatulence and fecal incontinence after lateral sphincterotomy is a serious issue. Quality of life issues need to be addressed in further studies.

Conflict of interest: None

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Role and contribution of authors:

Dr Faisal Siddiqi, collected the data and references and wrote the article.

Dr Mirza Arshad Beg, collected the data and references and wrote the initial writeup.

Dr Aisha Qamar, helped in collecting the referenes and data.

Areeba Abdullah, helped in collecting the

referenes and data.

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