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Quality of Life among Iraqi Patients Post Hemorrhoid Surgery: A Comparative Study of Surgical Techniques

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Annotation: The objective of this study is to assess the quality of life of patients following hemorrhoid surgery and to evaluate potential complications. A total of 110 patients aged between 20 and 50 were selected from various Iraqi hospitals, with their demographic information duly recorded. The study employed a cross-sectional design, with 80 male and 30 female patients being included. The initial data collected on the patients included their age, body mass index, gender, height, weight, any accompanying diseases, the type of anesthesia administered, and the symptoms they presented with. The quality of life of patients was evaluated before and after surgery using the HF-QoL scale. The study was conducted over a period of one year.

The results which found were age (30.2±3.3), BMI (30.5±3.9), and the patients were distributed according to sex (80 male patients, 30 female patients); the study identified complications following laser treatment for hemorrhoids, including minor bleeding, urinary retention, inability to urinate normally, fatigue, and nausea due to antibiotic use.

The study found that 6.36% of patients experienced less postoperative pain than expected, and 70% rated the procedure as good or excellent. However, rectal prolapse was observed in one patient, indicating a discrepancy between subjective perception and objective physical examination. This highlights the necessity for enhanced patient satisfaction with follow-up procedures.

Finally, the study identified a significant correlation between surgical resection and a reduction in post-surgical complications, with a higher incidence and improved quality of life compared to other resections.

Keywords: Patients, BMI, Hemorrhoid, Surgery, Anesthesia, Resection, HF-QoL, Scale, Bleeding, Nausea, Complications, Follow-up.

Introduction

Hemorrhoid disease is one of the most prevalent gastrointestinal disorders, affecting between 4.4% and 36.4% of the general population. It is estimated that more than 10 million individuals in the United States seek medical attention annually regarding this condition, with approximately 10% of patients requiring surgical intervention. Conventional surgical treatment of hemorrhoids is associated with significant postoperative pain, negligible morbidity, and the possibility of damage to the sphincter apparatus [1,2,3]. In 1975, Lomson introduced the concept that prolapse of hemorrhoids may be the result of downward sliding of the distal part of the mucosa. Hemorrhoids are a prevalent ailment in the anorectal area, but accurately determining their frequency is challenging because of their vague

symptoms and delicate placement [4]. Patients frequently postpone seeking medical intervention, opting to do so only when symptoms significantly impair their ability to carry out daily tasks. Globally, the condition affects approximately 4.4% to 16.5% of the population [5].

Bleeding is a common postoperative complication that can occur at two distinct time points: within the first 2-3 days postoperatively, it typically indicates loosening of the ligature point on the vascular pedicle [6].

This complication necessitates immediate reoperation due to the extent of the bleeding that occurs. If the bleeding occurs after 10-12 days, it indicates the fall of an eschar. In such instances, it is typically sufficient to apply an endoanal gauze pad for compression purposes. In the majority of cases, coagulation with an electric scalpel or the placement of stitches is not necessary if the capillary left uncovered by the fall of the eschar is larger [7,8].

Another potential cause of bleeding is the passage of particularly solid and voluminous faeces, which can traumatise the wound bed and create lacerations. However, the experience of bleeding can be a significant source of psychological distress for the patient. The sphincter contraction effectively prevents the escape of blood in real-time, allowing it to accumulate in the rectal ampulla until the necessary stimulus for evacuation is evoked, which typically occurs with the emission of copious quantities of blood [9,10].

[11,12] Pain is a common symptom of surgical procedures, including those in the anal region. Nevertheless, it is important to differentiate between pain associated with the surgical procedure itself, which may arise from the ligature points of the vascular peduncle, the scar, the passage of faeces and underlying muscle tractions, and pain resulting from potential complications, such as suppuration and abscess, incorrect positioning of the ligation with subversion of the anal architecture, and mucocutaneous lacerations following difficult evacuations [13].

Material and method

Data collection

A total of 110 patients suffering from hemorrhoids were selected at random from several different hospitals in Iraq. The data collected included demographic information and data. The patients were selected randomly but with specific ages ranging from 20 to 50 years.

Study design

This study was designed as a cross-sectional study of one hundred and ten patients suffering from hemorrhoids but with specific ages ranging from twenty to fifty years.

In this study, patients were distributed according to gender: 80 male patients and 30 female patients.

The primary information related to the disease was collected, which included age, body index, gender, height, weight, accompanying diseases, the type of anesthesia used and the symptoms that the patients suffered from. In addition, the patient’s quality of life was evaluated before the operation to know the developments that occurred in them after the surgery and the effectiveness of the technique used.

If the criteria for meeting in this study are patients whose ages range from 20 to 50 years, in addition to that, patients who wrote a written form for the purpose of conducting this study, patients who do not suffer from concomitant and fatal diseases, patients who underwent laser surgery for the purpose of removing hemorrhoids where in this study, patients' quality of life was evaluated according to scale HF-QoL.

Study period

The form was designed for patients to provide data for the purposes of scientific research. This study was conducted in accordance with the relevant requirements and applicable laws over a period of one year, from 3 March 2023 to 2 February 2024.

Aim of study

The objective of this study is to ascertain the quality of life of patients following hemorrhoid surgery and to evaluate the general complications that may occur in patients following surgery.

Results

Table 1- General results and demographic characteristics related to Iraqi patients undergoing hemorrhoid surgery

Variable		
Age		
20-29	55	50.00
30-39	30	27.27
40-50	25	22.73
BMI		
MEAN ±SD	30.5±3.9	---
SEX		
Male	80	72.73
Female	30	27.27
Symptoms		
Bright red blood in stool	30	27.27
Pain and irritation around the anus.	32	29.09
Swelling or a hard lump around the anus.	20	18.18
Itching.	28	25.45
Type of anesthesia used		
General	50	54.55
Migraine anesthesia	60	45.45
Comorbidities		
Obesity	30	27,27
blood pressure	27	24,55
Kidney disease	20	18,18
Diabetes	33	30,00
Smoking		
Yes	20	18.18
No	90	81.82
Outcomes $		
300-700	60	54.55
800-1100	30	27.27
>1200	20	18.18

In this study, the patient's quality of life was evaluated according to a scale developed by the author for the degree of pain. The prevalence of negative parameters was noted in all aspects of assessing the quality of life, as shown in the table below.

The HF-QoL questionnaire is a tool designed to assess a patient's quality of life. It comprises 23 items, which are grouped into the following categories: somatoform disorders, psychology, faeces, and sexuality. Participants are required to provide ratings on a 5-point Likert scale, and scores are computed for aspects that have fewer than 50% missing data.

Table 2- Evaluating patients' quality of life before surgery according to HF-QoL

Variable	Mean ±SD
pain	18±5.9
Sexuality	20.7 ±6.9
Psychological factor	19.9±8.2
Social side	20.4±4.765
Depression	18.8±6.6

Table 3- Evaluation of surgical outcomes to patients

Variable	Details
Hospital stay hours Mean ±SD	4±2.2
Duration of surgery Mean ±SD	30±2.9
Type of hemorrhoids	
internal	77
external hemorrhoids	33
Degree of internal hemorrhoids	
1	20 (18.8)
2	25 (22.2)
3	15 (13.6)
4	10 (9.09)
Degree of external hemorrhoids	
1	10 (9.09)
2	9 (8.18)
3	8 (7.27)
4	6 (5.4)

Table 4- Postoperative Outcomes of pain Iraqi patients for the first week

Day	Degree of pain
1day	10.9±3.1
Two days	10.1±2.13
Three days	10±1.534
Four days	9.7±1.32
Five days	8.2±2.1
Six-day	6.5±1.5
Seven days	5.3±1.88

Table 5- Evaluation of patients' quality of life after surgery

pain	9.1±1.7
Sexuality	10.5±2.5
Psychological factor	8.94±3.13
Social side	7.65±2.98
Depression	8.43±2.8

Laser technology represents one of the most reliable methods for the treatment of internal haemorrhoids, with the potential for a single session to resolve the issue. The recovery period following laser haemorrhoid surgery varies considerably between patients, with a typical range of one to two weeks. During this period, patients may observe minor bleeding and the presence of white and yellow secretions in their stools.

In this study, complications were identified following the process of treating hemorrhoids with a laser. The most prominent of these complications were minor bleeding after the operation, urinary retention, inability to urinate normally, and a feeling of fatigue and nausea resulting from the use of antibiotics to avoid infection rather than from the operation itself.

Table 6- Health outcomes related to postoperative complications in hemorrhoid patients for 110

Variable	F (p%)	CS (OI	P Value
Infection	5 (4.55)	1.2 (0.6-1.8)	0.893
Bleeding	4 (3.64)	1.1 (0.77-1.6)	0.93
Pain	7 (6.36)	1.3 (0.9-1.89)	0.892
Rectal prolapse: In rare cases	1 (0.91)	0.7 (0.3-1.1)	0.99

Table 6- Logistic regression to evaluate the patient's risk factor

Variable	CS (OI	P Value
Age	2.2 (1.6-2.7)	<0.05
Sex	1.82 (1.2-2.3)	0.075
Comorbidities	1.68 (1-2.1)	0.89
internal hemorrhoids	2.8 (1.8-3.7)	<0.05
Bright red blood in stool	1.9 (1.4-2.77)	<0.05
Pain and irritation around the anus.	1.796 (1.1-2.5)	<0.05
Swelling or a hard lump around the anus.	1.3 (0.8-1.91)	0.064
BMI high	1.6 (1.2-2.1)	0.73
Outcomes	1.45 (0.89-2.43)	0.66

Discussion

The objective of this study was to assess the short-term progression of hemorrhoid symptoms in patients undergoing laser hemorrhoidectomy by means of self-reporting of symptoms through a survey. The increased awareness of the patient as the centre of the health and care system has led to greater interest in patient-reported outcomes in clinical interventions. The measurement and analysis of these factors are directly related to better adherence to treatment and better outcomes in medical interventions. Our work provides valuable information on the impact of laser hemorrhoidectomy from the patient's perspective [14,15].

The ideal hemorrhoidectomy is one whose surgical technique is appropriate to the type of patient and his symptoms. This procedure should remove only the affected group of hemorrhoids while preserving sufficient mucosal bridges to avoid stricture and maintain good anal distension after surgery [16]. Laser hemorrhoidectomy has emerged as a viable alternative to surgical treatment of hemorrhoidal diseases as a long-term intervention. In the long term, it has demonstrated a lower recurrence rate compared to other surgical techniques described in the literature and is one of the most effective procedures in patients with grade III and IV internal hemorrhoids [17].

The procedure for prolapse and hemorrhoids has been positioned as a safe alternative with good results compared to the current techniques used. All previous studies have provided a comprehensive account of the positive results of this technique with great precision and detail. Nevertheless, there has been no attempt to ascertain patients' perceptions of the functional results of this surgery. In this regard, there is evidence that this process has a high satisfaction rate. [18] In this context, our current study demonstrated a reduction in symptoms following surgery as assessed by patients' quality of life. Potential postoperative consequences of laser treatment for hemorrhoids include infection, bleeding, pain, inadequate symptom relief, and rectal prolapse. Although laser treatment is typically regarded as

a less invasive procedure, it can still pose risks if the requisite sterilization protocols are not adhered to or if patients fail to maintain adequate hygiene standards [19]. It is possible that patients may experience heightened pain or discomfort, which can be effectively controlled with analgesic medicines. Should the symptoms remain unresolved, further interventions or treatments may be required. It is possible for rectal prolapse, a condition that necessitates surgical intervention, to occur as a rare complication of laser treatment. The duration of the surgical procedure may vary depending on the complexity of the case and the surgeon's expertise. The efficacy of surgical intervention may be contingent upon the specific type of hemorrhoids, the severity of internal and external hemorrhoids, and the level of discomfort experienced [20].

The initial results were encouraging, with seven patients (6.36%) experiencing less postoperative pain than anticipated. Additionally, the classification of the main symptoms of patients in the preoperative period (prolapse, rectal bleeding, anal pain, itching, infection) demonstrated the first approach to evaluating the degree of patient satisfaction with follow-up. In this study, 70% of patients rated the procedure as good or excellent, which may be attributed to the accumulation of experience over time, both in patient selection and surgical technique.

It is noteworthy that in this study, rectal prolapse was observed in one (0.91%) of the patients. This result may be related to the findings in the literature regarding the use of this technique. Nevertheless, there are reports indicating a significant discrepancy between the patient's subjective perception and the objective physical examination.

Conclusion

The findings of this study indicate a statistically significant correlation between a reduction in post-surgical complications and the surgical resection employed in this investigation. The incidence of complications was notably lower than that observed in other surgical resections, as documented in previous studies. Additionally, the questionnaire utilized in this study revealed an improvement in quality of life.

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