

Knowledge, Attitudes, and Practices (KAP) Survey to Assess Quality of Life of Patients After Hemorrhoid Surgery

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Abstract: BACKGROUND and AIM: Hemorrhoids are a pervasive condition that essentially influences the personal satisfaction (QoL) of impacted patients. This study seeks to evaluate general health quality of life at patients following stapled hemorrhoidectomy and hemorrhoidectomy procedures. **METHODS:** In the period between March 2023 and October 2024, 93 patients aged between 24 and 56 years underwent hemorrhoidectomy and stapled hemorrhoidectomy. The demographic and surgical data of the patients were recorded, as well as the outcomes before, during, and after surgery. A set of questionnaires was conducted in order to assess disease severity, symptoms, and quality of life. **RESULTS:** The present study revealed that the 35–45 age group constituted the majority of participants, accounting for 43.01% of the total sample. The male demographic constituted 64.52% of the sample, while the female demographic constituted 35.48%. Hypertension was identified as the predominant health concern, affecting 41.94% of the sample. Hypertension was the most prevalent condition, affecting 36.56% of patients. The most common symptoms were pain, bleeding, itching, and irritation, and 41.94% of patients had previously undergone treatment for hemorrhoids. The surgical outcomes demonstrated an overall success rate of 98.92% and 96.77% for hemorrhoidectomy and stapled hemorrhoidectomy, respectively. Postoperative complications occurred in 8.6% of patients following hemorrhoidectomy surgery and 12.90% following stapled hemorrhoidectomy. In terms of general health-related quality of life, physical disorders were present in 55.76% of patients prior to surgery, while 12.10% and 14.39% of patients experienced these after hemorrhoidectomy and stapled hemorrhoidectomy surgery, respectively. Defecation difficulties were recorded in 48.24% of patients before surgery, while 4.60% and 6.04% of patients experienced these after hemorrhoidectomy and stapled hemorrhoidectomy surgery, respectively. **CONCLUSION:** Our study summarized that both hemorrhoid surgeries show high and strong efficacy in improving patients' quality of life in terms of physical, sexual, and defecation aspects as well compared to preoperatively.

Keywords: Stapled hemorrhoidectomy; Hemorrhoidectomy procedures; Hemorrhoid; Symptoms; Post-operative complications; and Quality of life questionnaire.

INTRODUCTION

Hemorrhoids represent a prevalent health concern in contemporary society, with their etiology being attributed to a combination of factors, including a decline in physical activity, a shift towards sedentary lifestyles, and a diet deficient in fiber [Abramowitz, L. *et al.*, 2014; Tournu, G. *et al.*, 2017]. This condition has persisted throughout history, with records of its existence dating back to ancient civilizations. Hemorrhoids manifest as anorectal diseases characterized by the dilation and inflammation of veins in the rectum and the perianal region, leading to discomfort and pain. The clinical presentation of patients with hemorrhoids is typically characterized by the presence of grade III or IV hemorrhoids, which necessitate therapeutic intervention [Chuong, L. C. H. *et al.*, 2021; Johanson, J. F. *et al.*, 1990; Loder, P. B. *et al.*, 1994; Megari, K, 2013]. The therapeutic approach adopted for hemorrhoids can be categorized as either clinical or conservative. The conservative approach is primarily employed in cases of grade III and IV hemorrhoids in conjunction with anorectal pathology, as well as in patients who do not respond to clinical management [Siproudhis, L. *et al.*, 2006; Rorvik,

H. D. *et al.*, 2020; Hai, M. B. *et al.*, 2012; Hoa, T. T. *et al.*, 2006]. It is noteworthy that the utilization of more invasive treatment modalities for proctological diseases is gradually becoming obsolete. The methods have evolved to become more sophisticated and nuanced as our understanding of the anatomy and function of the anal canal has deepened [Hoi, N. D, 2002; Czarzasty, W. *et al.*, 2011; Abramowitz, L. *et al.*, 2019]. Of particular significance in maintaining continence and the distinction between solid, liquid, or gaseous forms is the anoderm, the skin covering the anal canal [Tin, N. T, 2006]. This is due to its diverse sensory functions. Displacements of the anoderm to the exterior can result in incontinence ranging from mild to severe, depending on the extent of the displacement. [Shalaby, R. *et al.*, 2001]

METHODOLOGY

Study Design

We conducted a study to evaluate the quality of life of patients before and after surgery. Between March 2023 and October 2024, two surgeries, both hemorrhoidectomy and hemorrhoidectomy, were

performed in the Department of Proctology in different hospitals in Iraq.

Data Collection

All data were collected from different hospitals in Iraq for both males and females with obesity during the follow-up period of one year. Inclusion criteria included 1) patients with hemorrhoids only, 2) patients with other comorbidities such as hypertension, diabetes, or heart disease, 3) male and female smokers, 4) patients who underwent hemorrhoid surgery, 5) patients who underwent previous treatments for hemorrhoids, 6) patients aged 24-56 years. Exclusion criteria included 1) patients with previous hemorrhoids, 2) pregnant or lactating women, 3) people aged less than 24 years and more than 56 years, 3) people with mental illness, 4) patients who refused to participate in the questionnaire, 5) patients with health or sexual problems. Demographic information included age, gender, body mass index, smoking status, nutritional status, comorbidities, and other data (education and marital status). All data and results were analyzed and distributed to patients using SPSS, 22, 0. Surgical methods.

This study recorded the surgical outcomes of the patients participating in this study. The patients were divided into two groups, all of whom underwent hemorrhoid surgery in the Department of Proctology in different hospitals in Iraq, totaling 93 patients. The first group included 63 patients, representing 67.74%, who underwent hemorrhoidectomy surgery. The second group included 30 patients, representing 32.26%, who underwent hemorrhoid fixation with staples.

Bowel preparation was performed 24 hours before the medical procedure by proctocolitis douche and diet restriction. Anti-infection was given in the wake of spinal sedation prior to giving the lithotomy position. The negligibly obtrusive methodology for hemorrhoids strategy was

finished by setting of tote string stitch with 2/0 polypropylene in the submucosa 2-3 cm proximal dentate line. Patient data were distributed during and after surgery, which included the duration of surgery, the number of patients bleeding during surgery, blood loss during surgery, the time to return to work after surgery, hospitalization, admission to the intensive care unit, mortality rate, overall rate of surgery and overall complications after surgery.

Questionnaires

All patients underwent a set of questionnaires that evaluated the impact of hemorrhoids on patients' quality of life. Patients completed a questionnaire to assess the severity of hemorrhoid symptoms and their impact on patients by supervising physicians in the Department of Proctology. The Hemorrhoidal Sickness Side Effect Score (HDSS) is an approved instrument intended to evaluate the seriousness of side effects related to hemorrhoidal infection, zeroing in on sex key side effects: immediate pain, immediate edema, recurrence, postoperative bleeding, stricture, perianal pain. The HDSS is used to assess the effect of these side effects on patients' personal satisfaction and is appropriate across different patients. The HDSS regularly goes from 0 to 20, with higher scores demonstrating more serious side effects. Furthermore, we evaluated the quality of life of the patients participating in the study by comparing before and after hemorrhoid surgery in terms of four domains using the SF-36 questionnaire, where each domain has a set of items, and the total score is calculated, where the lower scores are considered the most improvement in the quality of life of the patients, while the higher scores are the most severe and affect the quality of life of the patients. The domains included physical, psychological, defecation, and sexual disorders.

RESULTS

Table 1: Demographic characteristics of 93 patients in this study

Variables	N = 93, patients	Percentage, %
Age		
24 – 34	25	26.88%
35 – 45	40	43.01%
46 - 56	28	30.11%
Gender		
Male	60	64.52%
Female	33	35.48%
BMI, Kg/m²		
Overweight	44	47.31%
Obesity	49	52.69%

Smoking status		
Smokers	54	58.06%
Non – smokers	39	41.94%
Diet		
Good	24	25.81%
Poor	69	74.19%
Comorbidities	53	56.99%
No	40	43.01%
Hypertension	34	36.56%
Diabetes	12	12.90%
Heart diseases	4	4.30%
Others	3	3.23%
Marital status		
Single	19	20.43%
Married	60	64.52%
Divorced	10	10.75%
Widow	4	4.30%
Education levels		
Primary school	7	7.53%
High school	33	35.48%
College or university or post-graduate	53	56.99%

Table 2: Identification and evaluation OF severity of symptoms effect on 93 patients by Hemorrhoidal Disease Symptom Score (HDSS)

Items	HDSS
Pain	14.36 ± 4.28
Bleeding	10.16 ± 2.90
Itching and Irritation	15.43 ± 2.58
Mucus Secretion	11.87 ± 3.18
Soiling	14.35 ± 2.86
Prolapse	14.73 ± 3.15

Table 3: Determination diagnostics parameters in this study

Parameters	N = 93, Patients	%
Previous treatment of haemorrhoids		
Yes	39	41.94%
No	54	58.06%
Duration of disease, {years}		
< 1	25	26.88%
1 - 3	48	51.61%
> 3	20	21.51%
Haemorrhoids types		
Bleeding PR with grade II internal haemorrhoids	24	25.81%
Grade II haemorrhoids	18	19.35%
Grade III haemorrhoids	16	17.20%
Interno-external piles	10	10.75%
Prolapsed piles	11	11.83%
Thrombosed piles	14	15.05%
Causes associated		
Dietary Habits	69	74.19%
Lack of physical activity	46	49.46%
Prolonged sitting on the toilet	35	37.63%
Obesity	33	35.48%
Constipation and Straining	14	15.05%

Others	7	7.53%
Surgical method		
Stapled hemorrhoidopexy	30	32.26%
Haemorrhoidectomy	63	67.74%

Table 4: Surgical findings

Variables	Haemorrhoidectomy		Stapled hemorrhoidopexy	
	N = 63	%	N = 30	%
Duration of surgery, min	49.39 ± 8.61		29.06 ± 4.37	
No of patients with intraoperative bleeding	4	4.30%	5	5.38%
Intraoperative blood loss, {mL}	38.59 ± 5.76		46.41 ± 9.73	
Period of returning the patients to work in post-operative, {Days}	4.66 ± 1.12		6.54 ± 0.80	
Hospital duration, days	1.03 ± 0.55		0.94 ± 0.21	
ICU admission	8	8.60%	3	3.23%
Mortality rate				
Yes	0	0%	0	0%
No	63	100%	30	100%
Overall rate of surgery				
Success rate	92	98.92%	90	96.77%
Overall failure rate	3	3.23%	1	1.08%

Table 5: Postoperative complications

Variables	Haemorrhoidectomy		Stapled hemorrhoidopexy	
	N	%	N	%
Immediate pain	3	3.23%	4	4.30%
Immediate edema	1	1.08%	1	1.08%
Recurrence	1	1.08%	1	1.08%
Bleeding postoperative	1	1.08%	3	3.23%
Stricture	0	0.0%	1	1.08%
Perianal pain	2	2.15%	2	2.15%
Overall	8	8.6%	12	12.90%

Table 6: Assessment of general health quality – life in comparison between before and after surgery

Items	Before	After	
		Haemorrhoidectomy	Stapled hemorrhoidopexy
Physical disorders	55.76	12.10	14.39
Psychological	45.30	8.44	9.77
Defecation	48.24	4.60	6.04
Sexuality	33.49	2.50	5.33
Overall HF-QoL	46.91	21.80	27.36

DISCUSSION

This study was driven at the Part of Proctology in different hospitals in Iraq facilities to overview the individual fulfillment of patients with hemorrhoids during operations. Our audit found patients aged 35-45 were likely to partake in this survey. Alternately, various assessments noted more prepared-age social events, including 46 ± 24 years in Nghe An [Lin, H. C. *et al.*, 2019], Vietnam, 48 years in Italy [Huong, N. V. *et al.*, 2014], and 55 years in Sweden [Behboo, R. *et al.*, 2011]. These disclosures suggest an example of more young hemorrhoid patients, which stood out

from the greatest epidemiological survey from 2010, which recorded ages going from 45 to 65 years.

Our review uncovered a greater part of male members, representing 64.52%, higher than guys. This doesn't line up with patterns found in other studies [Gerjy, R. *et al.*, 2012; Ayari, M. *et al.*, 2020; Giua, C. *et al.*, 2021], which detailed 58.3% female members. Methodical surveys reflect variable orientation disseminations, demonstrating that orientation doesn't essentially affect personal satisfaction in hemorrhoid victims.

Most subjects have critical comorbidities, with hypertension being the most well-known, with 36.56%. Careful inclinations in our review inclined toward hemorrhoidectomy over stapled hemorrhoidopexy, a deviation from late patterns potentially because of impermanent deficiencies in clinical supplies. Patients had a typical illness span of 1-3 years, with most not having gotten earlier medicines, contrasting from discoveries in different examinations and featuring fluctuation in quiet narratives and treatment draws near.

Customary hemorrhoidectomy medical procedures like the Milligan-Morgan activity and Ferguson's shut hemorrhoidectomy have been exceptionally viable for dependable suggestive control. In any case, a significant disadvantage of these medical procedures is huge postoperative torment, which is the excellent reason for detainment and faltering of therapy. The ideal treatment for hemorrhoids ought to be liberated from routine outcomes like agony and dying. [Keong, S. Y. J. *et al.*, 2021; Tan, V. Z. Z. *et al.*, 2022; Wee, I. J. Y. *et al.*, 2023; Yang, H. K., 2014; Committee on Population and Housing Census Statistics, 2019]

A few randomized controlled preliminaries portrayed the security and viability of MIPH. Deliberate surveys of randomized controlled preliminaries followed by meta-examinations have shown that the momentary results bring about favor of MIPH when contrasted and conventional excisional methods. Essentially, MIPH enjoys a few upper hands over traditional hemorrhoidectomy, like negligible torment with insignificant blood misfortune, negligible employable time, speedy recuperation, and diminished medical clinic stay. Notwithstanding, meta-examinations of randomized controlled preliminary studies have portrayed that MIPH has a higher repeat rate than traditional hemorrhoidectomy. [General Statistics Office; Ministry of Health, 2023]

This study uncovered huge upgrades in personal satisfaction (QoL) following a hemorrhoid medical procedure, as proven by diminished generally speaking HF-QoL scores from 46.91 before the medical procedure to 21.80 after the hemorrhoidectomy medical procedure and stapled hemorrhoidopexy medical procedure, denoting a measurably critical improvement in physical, mental, crap, and sexual wellbeing aspects. These discoveries are like the Amercain study, which reported significant enhancements in QoL patients. [Brown, S. R. *et al.*, 2016]

Minimal invasive procedure for hemorrhoids gives off an impression of being a simple and quick activity instead of other transanal dearterialization methodologies. Yet, during the method, specialized mistakes play a fundamental part in the repeat rate when contrasted and ordinary hemorrhoidectomy. Assessing the evacuation of how much-prolapsed mucosa is a significant and useful disadvantage of the strategy of MIPH. [Rorvik, H. D. *et al.*, 2023; Martinsons, A. *et al.*, 2007; Erdogdu, A. *et al.*, 2013]

CONCLUSIONS

The present study indicated that both procedures are highly effective in treating patients and improving their quality of life, with hemorrhoidectomy being more preferable than hemorrhoid stapling in terms of lower rates of complications and postoperative bleeding and greater improvement in physical aspects and defecation.

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