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Quality of life after stapled hemorrhoidopexy : A prospective observational study

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Abstract

Background: Symptomatic haemorrhoids are a quality of life issue. The present study was conducted to assess the quality of life of the patients after stapled hemorrhoidopexy (SH) for haemorrhoids, with the help of WHO quality of life-BREF questionnaire and comparing it with conventional excisional hemorrhoidectomy (CEH).

Methods: The study comprised of 40 patients who were diagnosed with grade 2, 3 or 4 internal haemorrhoidal disease after evaluation by examination, rectosigmoidoscopy or other methods and underwent stapled haemorrhoidectomy (SH) procedure. The patients were asked to complete(WHOQOL-BREF questionnaire)

Results: We compared the various WHOQOL-BREF parameters before and one month after SH. The important factors responsible for a dramatic improvement in overall perception and physical and psychological domains were relief of the symptoms of haemorrhoids and the minimal post-operative pain. This allowed the patients greater freedom to go through their daily routine and ability to focus better on their work. The score returned to the pre-operative level on the 7th post-operative day and reached a significantly higher level at the end of one month. **Conclusion**: there was dramatic improvement in the quality of life after stapled hemorrhoidopexy.

Key-words: Haemorrhoids, stapled haemorrhoidectomy, WHOQOL- BREF, quality of life

Introduction

Haemorrhoids are symptomatic enlargements of the internal haemorrhoidal venous plexus (Greek haima = blood, rhoos=flowing; synonym: piles, Latin pila= ball).

Haemorrhoidal disease is a disease affecting social life negatively and found in approximately 4-20% of the population.

Almost half of the 50 years old population experienced haemorrhoidal symptoms in their life, but only about 10 to 20% of them need surgery. Since it is first proposed by Longo in 1998, circular

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stapled hemorrhoidopexy (CSH) has become an alternative to conventional hemorrhoidectomy for the treatment of symptomatic hemorrhoidal prolapse (Hp).

The stapled hemorrhoidopexy scores over excisional hemorrhoidectomy in terms of less post-operative pain, absence of perineal wound requiring care extending over a couple of weeks, and early return to normal day-to –day routine. The present study was conducted to assess the quality of life of the patients after stapled hemorrhoidopexy (SH) for haemorrhoids, with the help of WHO quality of life-BREF questionnaire and comparing it with conventional excisional hemorrhoidectomy (CEH).

Materials and Methods:

The study was conducted in the post-graduate department of surgery in Govt. Medical College & Associated Hospitals Jammu for a period of one year between march 2023 to 2024 which included 40 patients who presented to this Hospital with anal region complaints & were diagnosed with grade 2, 3 or 4 internal haemorrhoidal disease after evaluation by examination, rectosigmoidoscopy or other methods.

The inclusion criteria were: age above 18 years, symptomatic 2,3 & 4 degree haemorrhoids, fitness for anesthesia under ASA grade I & II.

The exclusion criteria were thrombosed haemorrhoids, concomitant perianal fistula, fissures, abscesses and unwillingness to participate in study. An informed written consent was obtained from the patients after explaining the procedure, expected outcome, and possible immediate and delayed complications. Procedure was performed under general or regional anesthesia. The SH procedure was performed according to Longo's technique in 40 patients. Patient s were administered an injection of diclofenac sodium (1.5mg/kg) at the end of surgery. Thereafter, they were advised analgesics on demand. Patient's demographic data, operative time , and post-operative complications including pain intensity on VAS, bleeding, urinary retention, painful defecation and duration of hospital stay were recorded. The patients were discharged from hospital when they felt comfortable and pain intensity on VAS was < 3. The patients were followed-up weekly for one month in the O.P.D.

Quality of life(QOL) assessment was done by WHO quality of life-BREF (WHOQOL-BREF) questionnaire. The hindi and urdu version of the WHOQOL-BREF questionnaire was used for evaluating the QOL. It consists of 24 items, covering four domains: physical condition, psychological condition, social relationships and environmental issues. The physical domain has questions related to daily activities, treatment compliance, pain and discomfort, sleep and rest, energy and fatigue. The psychological domain assesses positive and negative feelings, self-esteem, body image and physical appearance, personal beliefs and attention. The social relationship domain covers personal relationships , social support and sexual activity. The environmental domain explores physical security, financial resources, health and social care and their availability, oppurtunities for acquiring new information and skills, and opportunities for and participation in recreation and transport. Besides these domains two additional questions were used: " how would you rate your QOL?" and " how satisfied are you with

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your health?" the final questionnaire, thus, contained 26 items. Each item used a 5-point Likert scale. For example : 5=very satisfied, 4= satisfied, 3= neither satisfied nor dissatisfied, 2= dissatisfied, and 1= very dissatisfied. The high scores indicate a better QOL. For comparing the domain scores before and after SH the WHOQOL-BREF scores were converted into scores from 0 to 100, with a lowest score of zero and a highest score of 100. The patients were asked to complete WHOQOL-BREF questionnaire before and one month after the surgery.

Statistical Analysis: Data were managed on an excel spreadsheet. Descriptive analysis of demographic data, clinical parameters, postoperative complications, and WHOQOL-BREF questionnaire scores were carried out. Quantitative variables were summarized by mean and standard deviation or median and interquartile range, and categorical variables were summarized by frequency. Wilcoxon signed rank test was used for comparing scores of various domains of WHOQOL-BREF questionnaire. P values less than 0.05 were considered as statistically significant. Statistical analysis was done using SPSS16 software

Table 1: postoperative complaints as recorded by the patients at weekly follow-up in case of SH

Complication	Postoperative period (in weeks) 1	2	3	4
Bleeding	4/40	2/40	0/40	0/40
Constipation	6/40	6/40	2/40	2/40
Urgency	6/40	0/40	0/40	0/40
Painful defecation	4/40	0/40	0/40	0/40

Table 2: postoperative pain intensity on VAS score in case of SH

	VAS score at 6hrs	VAS score at 12 hrs	VAS score at 18 hrs	VAS score at 24 hrs
Number valid	40	40	40	40
Number missing	1	1	1	1
Mean	5.90	3.38	1.23	.63
Median	5.50	2.50	.00	.00
Std. Deviation25	2.110	2.446	2.213	1.904
Std. Deviation50	4.00	2.00	.00	.00
Percentiles 50	5.50	2.50	.00	.00
Percentiles 75	7.00	4.75	2.00	.00

Results

A total of 40 patients operated between march 2023 to February 2024 with symptomatic 2, 3 and 4^{th} degree haemorrhoids were included in this study with 22 males and 18 females. Mean age of the patients 42 years ± 8 years. Male to female ratio was 11:9. The median duration of symptoms

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was 12 months. Prolapse of the hemorrhoidal mass was reported by 14 patients. The mean duration of surgery was 25 minutes ± 5 minutes. Doughnut was complete in all the patients. Table 1 shows the post-operative complications as noticed by the patients during weekly postoperative follow-up. Three patients had urinary retention and required catheterization. There was minimal blood staining of the dressing of 8 patients. Fifteen patients had bowel motion within 24 hour postoperative hospital stay; 4 of them complained of painful defecation. Table 2 shows the postoperative pain score at VAS at different points of time after SH.The VAS score at 6 hours postoperatively was 7± 1, which reduced to 0.0± 0.9 at 24 hours. All the 40 patients were reported to have VAS score≤ 3 at 24 hours postoperatively in immediate postoperative period. All the patients were discharged from the hospital on the first post-operative day. The items in the WHOQOL-BREF had high-internal consistency as shown by high confidence interval of the difference of 95% as shown in table 3, which also shows change in QOL scores in various domains. Table 3 also shows t values of -14.13 to -6.98 and sig. 2-tailed is 0.00 in all the 4 domains which is statistically significant indicating a significant improvement in over-all perception of QOL and health in all the four domains.

Table 3 changes in various domains of QOL in case of SH

	paired Differences						t	df	Sig. (2-tailed
		Mean	Std. Deviation	Std.Error Mean	95% confidence interval of difference				
					Lower	Upper			
Pair 1	Physical domain preop-physical domain postop	-2.350	1.051	.166	-2.686	-2.014	-14.138	39	.00
Pair 2	Psychological domain preop-Psychological omain postop	-1.875	1.181	.187	-2.253	-1.497	-10.043	39	.00
Pair 3	environmentaldomain preop-environmental domain postop	-2.750	.927	.147	-3.046	-2.454	-18.766	39	.00
Pair 4	Social domain preop-social	-.825	.747	.118	-1.064	-.586	-6.983	39	.00

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	domain postop								

Discussion

Haemorrhoids are dilated and engorged veins over anal cushions. In addition to dietary modifications, various treatment options for haemorrhoids include sclerotherapy, rubber band ligation, cryotherapy, radiofrequency ablation, plication, excisional haemorrhoidectomy and stapled haemorrhoidopexy. Numerous studies have been conducted to compare stapled haemorrhoidopexy and conventional excisional haemorrhoidectomy in terms of hospital stay, operating time, post-operative pain and discharge etc.

our study was planned to evaluate the quality of life which is being increasingly visualized as a more refined and realistic parameter of success of any medical intervention. Haemorrhoids may badly affect the quality of life to varying extend depending on the degree of haemorrhoids and symptoms associated with them.

Overall perception of QOL, health and the physical, psychological, social and environmental domain are affected to different extent which is evident from the preoperative assessment of QOL in our patients (table 3).

The change in QOL score is reveals two distinct elements: (a) allevation of symptoms of haemorrhoids following surgery and (b) post-operative pain and sequel/complications following SH. None of the patient reported anal bleeding after 2 weeks of SH. The post-operative pain decreased in severity to the VAS score of 0 at 24 hours following SH which enabled in earliest discharge of all the patients on the 1st post-operative day of SH. Other post-operative complications are shown in table 1 at 4 weeks after SH, only one of the 40 patients reported a complaint (constipation). The QOL score, at one month after SH, revealed improvement as compared to pre-operative score in respect of 5 of the 6 parameters of WHOQOL-BREF questionnaire (table 3).

The main purpose is to ensure satisfaction with the everyday life as a whole. The QOL scores have great importance in the present day scenario due to the changing pattern of health care delivery. We compared the various WHOQOL-BREF parameters before and one month after SH. The important factors responsible for a dramatic improvement in overall perception and physical and psychological domains were relief of the symptoms of haemorrhoids and the minimal post-operative pain. This allowed the patients greater freedom to go through their daily routine and ability to focus better on their work. The score returned to the pre-operative level on the 7th post-operative day and reached a significantly higher level at the end of one month. A powerful prospective study with a larger sample size is the need of hour to address the various QOL issues in operated patients.

Conflict of interest

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There is no conflict of interests

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