How to Cite:
Muhammad, A. S., Mohammad, A. A., Abbas, H. A. A., & Ridha, A. M. A. (2022). Assessment complications of haemorrhoidectomy surgery. *International Journal of Health Sciences*, *6*(S5), 9320–9327. https://doi.org/10.53730/ijhs.v6nS5.11941

Assessment complications of haemorrhoidectomy surgery

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***Abstract*---**Haemorrhoids are one of the most common benign anal problems worldwide, affecting more than one million people annually. The incidence can be as high as 36.4%. When these veins expand, they turn into a disease called haemorrhoids. This paper aims to Assessment complications of haemorrhoidectomy surgery where a cross-sectional study was conducted on patients suffering from haemorrhoids in Iraq with 150 patients, who were collected from different hospitals in Iraq. Haemorrhoid patients were registered in different hospitals in Iraq during the years 2020 and 2021. An evaluation was conducted in the short term to know the complications generated by the patients. The patient was visited after ten days, 20 days, and 30 days, and the visual analogy scale was relied on in evaluating patients. The results showed a reduction in the

complication rate for patients when using the electrotherapy method, as the evaluation of the score pain showed a significant decrease when using electrotherapy compared with the Ferguson group. The prevalence of complications when using the electrotherapy method was for 23 patients, with 27% at ten days. The most common complications were bleeding and discharge. As for the Ferguson group, the prevalence of complications was at ten days for 48 patients, so the electrotherapy preferred method to haemorrhoidectomy is a safe and acceptable choice over conventional surgical treatment techniques for grade II and grade III haemorrhoids.

***Keywords*---**Haemorrhoids, Electrotherapy, Ferguson, haemorrhoidectomy, bleeding, discharge.

Introduction

Haemorrhoids are one of the most common diseases in developed industrial countries, with an estimated prevalence of 120-140. cases per 1,000 adults [1,2]. In the structure of diseases of the rectum and anal canal, haemorrhoids account for 34-41% [3,4]. The average age of patients with haemorrhoids is 30-50 years [5]. Over the past years, various methods of treatment have been relied upon through the use of modern methods and medical technology on a large scale in Iraq, and through a meta-analysis of patients and previous studies of articles published in Iraq, different complications were detected depending on the patient after haemorrhoidectomy, where the prevalence of complications was observed to more than from 40% of patients [6,7,8]. Haemorrhoids can be described as cushions formed by the sub mucosal tissue, as these sub mucosal cushions are a major factor in the continence mechanism, which is the cause of closing the anal canal at rest, which occurs to different ages and both sexes [9,10,11].

Physiological changes were found with the development of the frames, which followed these changes (severe fatigue, the presence of hardening of the stool in addition to the prolapse of haemorrhoidal tissues, and the presence of constriction) [12]. There are acute and chronic haemorrhoids according to localization; haemorrhoids are divided into external, internal, and combined. According to the mechanism of development, haemorrhoids are hereditary and acquired, primary (an independent disease) and secondary (when dilatation of the veins of the rectum is a symptom concomitant with other diseases) [13,14]. The acute form of haemorrhoids is divided into three degrees (the first degree is thrombosis of haemorrhoids without inflammation [15]. Second-degree complicated thrombosis due to inflammation of the haemorrhoids [16]. And third-degree is thrombosis of haemorrhoids complicated by inflammation of the subcutaneous tissue and perianal skin.

Material and Method

Patient sample

A cross-sectional study was conducted on patients suffering from haemorrhoids in Iraq. Haemorrhoid patients were registered in different hospitals in Iraq during the years 2020 and 2021. 150 patients were collected from different hospitals in Iraq, and this study aimed to assess the complications generated by haemorrhoids patients after treatment

Study design

The cross-sectional study was designed based on collecting patients from two groups depending on the method used in haemorrhoidectomy, where 150 patients were collected, and the techniques used were electrotherapy, 80 patients, Ferguson technique, 60 patients, where a full physical examination was done to the patients after obtaining all information, and demographic data and the exclusion criteria were These are patients with cancer and polyps. An evaluation was conducted in the short term to know the complications generated by the patients. The patient was visited after ten days, 20 days, and 30 days, and the visual analogy scale was relied on in evaluating patients. Symptoms were presented, which included (pain and protrusion, in addition to bleeding after a bowel movement, and the complications generated as a result of the surgical management were evaluated over a full month with a different period of time).

Study period

Cooperated with the special committees for the purpose of obtaining the necessary and required approvals for the purpose of collecting patients and demographic information. Patients were evaluated through advanced follow-up to the complications that occurred, and the study period was for a one year which include Assessment of complications, collecting primary and demographic data for patients, in addition to analysing data and results for patients

Aim of study

This paper aims to Assessment complications of haemorrhoidectomy surgery

Results

Table 1- Demographic results of patients

Variable	Electrotherapy N=85	Ferguson group N=65	P-value
Age			
40-44	16	10	0.88
45-49	18	8	0.09
50-54	21	19	0.83
55-60	30	28	0.085

Total	85	65	
Sex			
female	21	32	0.05
male	64	33	0.001
Total	85	65	
comorbidities			
hypertension	49	29	0.04
diabetes	13	18	0.3
others	23	18	0.4
Smoking			
Yes	35	15	0.07
No	50	40	0.02
Grades of haemorrhoids			
I	30	25	0.8
II	40	30	0.55
II	15	10	0.44
Symptoms			
Bleeding	18	22	0.83
Discharge	21	17	0.96
lump	3	7	0.08
Pain	32	1	0.01
Prolapse	1	5	0.77
Pruritus	10	13	0.68

Table 2- Assessment of complications of haemorrhoids postoperative according to Electrotherapy

Variable	At 10 days	At 20 days	At 30 days	Chi square
Bleeding				
Primary	4	2	1	
Secondary	2	0	0	
reactionary	1	0	0	
Fever	3	1	0	20.345
Incontinence	1	0	0	
Pain	4	2	1	
UTI	3	2	1	
Discharge	5	2	1	

Table 3- Assessment of complications of haemorrhoids postoperative according to Ferguson

Variable	At 10 days	At 20 days	At 30 days	Chi square
Bleeding				
Primary	6	4	1	
Secondary	3	2	0	
reactionary	2	0	0	

Fever	5	3	2	25.66
Incontinence	4	2	0	
Pain	7	4	1	
UTI	5	2	1	
Discharge	16	8	4	

Table 3- P-value assessment complications of haemorrhoids postoperative

Variable	At 10 days	At 20 days	At 30 days
Bleeding			
Primary	0.93	0.00	0.00
Secondary	0.93	0.00	0.00
reactionary	0.99	0.00	0.00
Fever	0.44	0.55	0.9
Incontinence	0.02	0.00	0.9
Pain	0.05	0.83	0.77
UTI	0.03	0.00	0.00
Discharge	0.002	0.001	0.05

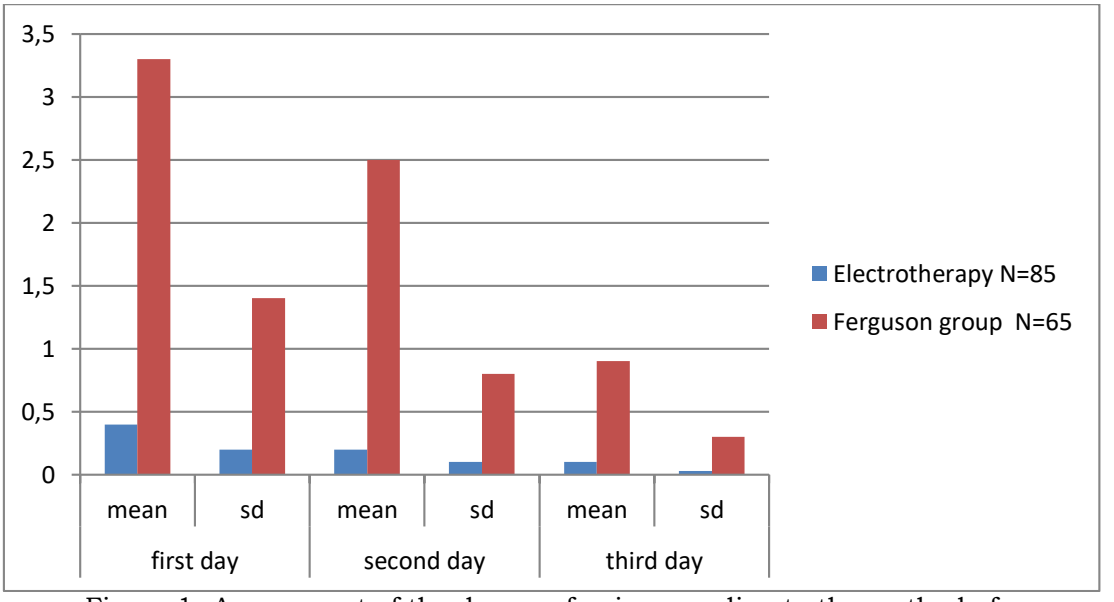

Figure 1- Assessment of the degree of pain according to the method of haemorrhoidectomy

Discussion

In this study, 150 patients from the hospital were collected. The aim of this study was to evaluate the complications of haemorrhoids according to the electrotherapy and Ferguson method. Where patients were distributed to 85 patients for the Electrotherapy group and Ferguson group, the rate age most

frequent in the Electrotherapy group was from 55-60 years for 30 patients, in the Ferguson group for 28 patients. Ages were distributed according to gender in the Electrotherapy group (64 male patients and 21 female patients) and the Ferguson group (33 male patients and 32 female patients).

Haemorrhoids are divided according to their severity into three degrees, the first degree, which is the clotting of external or internal haemorrhoids without inflammation; the second-degree blood clotting, complicated by Hemorrhoiditis and the third degree-haemorrhoidal thrombosis, complicated by inflammation of the subcutaneous tissue in the area around the anus. The patients were distributed according to symptoms, and the most frequent was a pain in the Electrotherapy group for 32 patients and discharge for 21 patients. As for the Ferguson group, it was bleeding for 22 patients and discharge for 17 patients, and pruritus for 13 patients, as shown in Table 1.

In this study, the complication results of patients suffering from haemorrhoids after 10, 20, and 30 days were evaluated, and calculated statistical differences between the methods used in haemorrhoidectomy. According to the method of electrotherapy, few complications were found when compared with the Ferguson method, and the results of our study were confirmed compared to other studies (pire-Skontan 2017), where a high complication rate was revealed of patients who had haemorrhoidectomy by the Ferguson method, so the method of electrotherapy is the preferred method and the appropriate option in the removal of haemorrhoids [17].

According to a meta-analysis to previous studies from 2010 to 2017 to compare the different methods of hemorrhoidectomy, and the most frequent complications were (bleeding, fever, pain, UTI, and discharge). Five studies were conducted to evaluate electrotherapy in haemorrhoidectomy, and the complications arising after the surgery were identified. Similar results were found to the results of our study (pain rate was very mild, and 94.9% returned to their normal activities after three days, so they were evaluated Electrotherapy as a safe method for haemorrhoidectomy [18].

Conclusion

In this study, complications generated as a result of haemorrhoidectomy were evaluated. In this study, an increased rate of pain was detected for patients in the Ferguson group compared to the electrotherapy group. The results showed that the method of electrotherapy is the preferred method for removing haemorrhoids as a result of the lack of complications and pain.

Recommendation

- Electrotherapy is offered to patients with severe third-or fourth-degree internal haemorrhoids as an alternative treatment option to surgery, but in some cases, it may not be effective enough, which leads to repeated Electrotherapy.

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