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Emergency Haemorrhoidectomy in Acute Haemorrhoidal Crisis: A Tertiary Centre Experience

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ABSTRACT

Acute haemorrhoidal crisis refers to painful, irreducible prolapsed haemorrhoids. On the best of hand, surgical treatment of acute haemorrhoidal crisis could still risk complications of bleeding and worse, incontinence. Our study aimed to look at the short-term outcomes of emergency excisional haemorrhoidectomy for acute haemorrhoidal crisis at a colorectal centre. This is a retrospective study conducted at a tertiary centre in the northern state of Malaysia from January 2015 to December 2020. The medical record was traced from the medical record unit and the operation theatre list for all patients with surgical treatment for an acute haemorrhoidal crisis. Sociodemographic data and complications rate were collected with 12 months follow-up. There were 51 patients identified from the registry and 29 out of those were male. The median age was 41 (20-82) years old. In addition, 26% (n=13) of the females were pregnant at presentation. Five patients had previous haemorrhoidal procedures performed. The median operating time was 35 (15-143) minutes with the length of hospital stays of 4 (2-10) days. The early complications were seen in 17 patients with bleeding (5.9%) and urinary retention (27%). The 12-month recurrence rate was 7.8% with median Wexner incontinence scores of 0 (0-3). The emergency excisional haemorrhoidectomy in acute haemorrhoidal crisis is safe and effective for immediate symptomatic relief with an

acceptable low self-limiting complication rate. dy.

INTRODUCTION

Haemorrhoids is a common anorectal condition characterised by symptomatic enlargement and displacement of vascular cushion in the anal canal. Between 4.4% and 36.4% of the general population are affected by haemorrhoids (Elnaim et al., 2019; Loder et al., 1994). Acute hemorrhoidal crisis refers to painful, prolapsing, and irreducible haemorrhoids due to constriction and eventual blockage of the haemorrhoid venous return (Theodoropoulos et al., 2013). Further congestion of these vascular cushions leads to pain and subsequently anal spasms, preventing it from reduced spontaneously (Ng et al., 2020). This is the vicious cycle of acute haemorrhoidal crisis from progressive haemorrhoidal prolapsed. Conservative treatment includes ice-packing, sitz baths, sugar dressing, laxatives and adequate analgesia. The aim is to reduce the haemorrhoid swelling, release the strangulation and alleviate the pain, which would take several days to resolve. The symptoms are usually persistent and recur which elective surgery may eventually needed.

Emergency haemorrhoidectomy is less popular, and many surgeons avoid as concerns regarding in¬creased risks of anal stenosis, sphincter damage, and portal pyae¬mia following acute surgical intervention (Ng et al., 2020). Majority of these patient who had a successful initial non-operative management would have recurrent symptoms, if further surgical intervention was not offered. Nevertheless, non-surgical treatment may fail and progress to ruptures, haemorrhage, gangrene and ulceration, causing prolonged patient suffering and increasing hospital stays. Furthermore, few studies have proven that emergency haemorrhoidectomy is a safe and effective procedure that allows rapid symptoms relief and a short hospital stay, comparable to elective haemorrhoidectomy. No local study has been carried out to address the validity of this common dilemma. Henceforth, we conducted a retrospective study to evaluate the outcomes and complications for those presented with acute haemorrhoidal crisis underwent emergency excisional haemorrhoidectomy.

MATERIALS AND METHODS

The study was done in a specialized colorectal surgery unit at a tertiary centre in the northern state of Malaysia. We collected data between January 2015 and December 2020 for patients who presented with an acute haemorrhoid crisis, defined as painful prolapsed haemorrhoids that may be associated with thrombose, bleeding, or ulceration. A total of 51 patients underwent emergency haemorrhoidectomy; either Milligan-Morgan or Ferguson, operated by the registrars, general surgeons or colorectal surgeons. Patient data like demographic, clinical complaints, perioperative data, and complications such as acute urinary retention, bleeding, anal fissure, recurrence, anal stenosis, anorectal abscess and incontinence were analysed. The Wexner incontinence score was used to assess the incontinence. All patient data were retrospectively collected through Electronic Hospital Information System (eHIS) and the patients' folder. In addition, a follow-up telephone interview was conducted for patients who did not attend the final assessment (1 year after the operation). The data were compiled and analysed using Microsoft Excel (version 2016). This study was approved by Medical Research & Ethics Committee with an approval number of NMRR ID-23-00427-7XQ.

RESULTS

Table 1 presents the demographic data and clinical characteristics statistics. There were 29 males and 22 females with a median age of 41 (range 20-82) years old. In addition, 26% of the patients from our cohort were pregnant. Five patients had previous haemorrhoid procedures; one had a stapled haemorrhoidopexy, and

four had rubber band ligation. The majority of the patients complained of painful prolapsed haemorrhoids with minimal bleeding on presentation.

A total of 72.5% of patients in (American Society of Anesthesiologists (ASA) class I and the rest in ASA II to IV. The median operating time and hospital stays were 45 minutes and 4 days, respectively. The median waiting time to surgery was 2 (0-4) days and the post-operative in patient stay was 1 (0-7) days. There was one patient stays for 7 days after closed haemorrhoidectomy because of secondary haemorrhage with haematoma requiring re-exploration and evacuation of clots.

The postoperative complications shown (Table 2) were early complications, most commonly reported as the urinary retention 27%, required no intervention and postoperative bleeding 5.9% with no transfusion required. The median incontinence scores were 0 (0-4) for pre-operative period and 0 (0-3) during 12-month postoperative assessment. There were 4 patients (7.8%) had recurrence at 12-month follow-up.

Table 1: Demographic, clinical and operative data.

Socio-demography	**n (% / range)**
Age in years, median (range)	41 (20-82)
Gender, n (%)	
Male	29 (56.8%)
Female	22 (43.2%)
Pregnant	13 (59.1%)
Not Pregnant	9 (40.9%)
Duration of hospital stay in days, median (range)	**4 (2-10)**
Duration from admission to surgery in days, median (range)	2 (0-4)
Duration from operation to discharge in days, median (range)	1 (0-7)
Previous haemorrhoid intervention, n (%)	
Rubber band ligation	4 (7.8%)
Stapled haemorrhoidopexy	1 (2%)
ASA classification, n (%)	
I	37 (72.5%)
II	12 (23.5%)
III-IV	2 (4%)
Type of Anaesthesia, n (%)	
General Anaesthesia	13 (25.5%)
Spinal Anaesthesia	38 (74.5%)
Type of Haemorrhoidectomy, n (%)	
Milligan-Morgan	22 (43.1%)
Ferguson	29 (56.9%)
Total Excised Columns of Haemorrhoids, median (range)	2 (1-3)
Operative time in minutes, median (range)	35 (15-143)

Table 2: Complications

Complications	n (%)
Early (< 7 days postoperatively)	
Secondary haemorrhage	3 (5.9%)
Urinary retention	14 (27.5%)
Late (> 7 days postoperatively)	
Anal fissure	2 (4%)
Recurrence	4 (7.8%)
Wexner Incontinence Score	**Median (range)**
Pre-op	0 (0-4)
12 months post-op	0 (0-3)

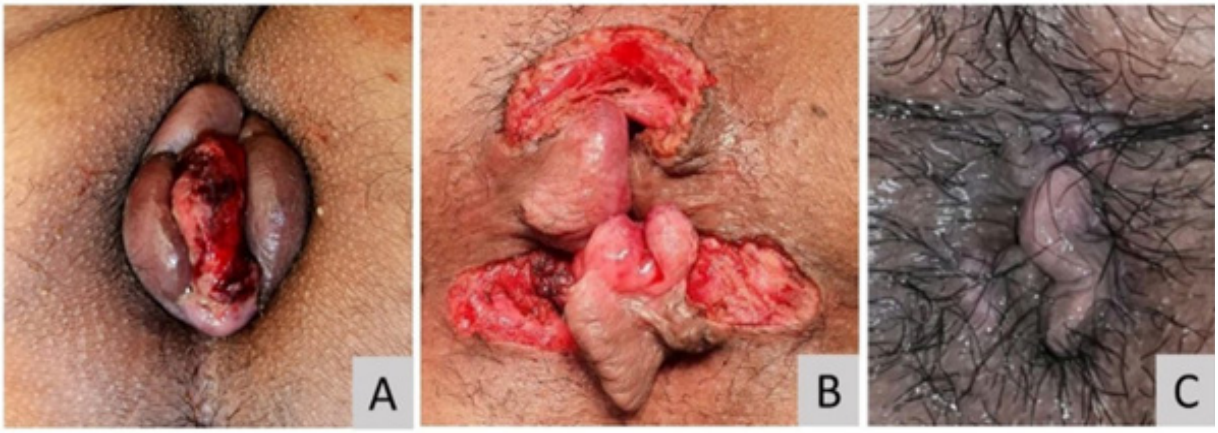

Figure 1: Acute haemorrhoidal crisis (A), excisional haemorrhoidectomy (b), and post-operation 3-month after excisional haemorrhoidectomy (C).

DISCUSSION

Emergency excisional haemorrhoidectomy comes with negative implication for their risks of secondary haemorrhage, anal incontinence, anal stricture, and recurrences. The profound challenges in identifying the plane of the haemorrhoids which were oedematous and gangrenous during acute haemorrhoidal crisis imposes anxiety to many general surgeons and patients (Hardy & Cohen., 2014). Many adopted watch and wait strategy until the oedema subsides prior to subjecting the prolapsed haemorrhoids for the excisional haemorrhoidectomy. On the contrary, in the past we have learned that there was no statistically significant in complication rate comparing emergency and elective excisional haemorrhoidectomy with the contradicting benefits that the emergency procedure could provide rapid pain relief and shorter hospital stay compared to non-operative treatment in acute haemorrhoidal crisis (Hardy & Cohen., 2014; Eu et al., 1994; Lai et al., 2006)). The post operative infection rates were equivalent when performing excisional haemorrhoidectomy in emergency or elective settings (Pattana-arun et al., 2009). Immediate surgical intervention reduced the prolonged recovery during the non-operative management, henceforth, improved the early return to work and reduced economic burden. However, the non-operative approach may be favourable among pregnant patients when calculated maternofoetal risks outweighs the benefit of the operation (Hardy & Cohen., 2014).

Urinary retention was the most reported early complication in our study (n=14) which

resolved spontaneously after 48 hours by hot compression or clean intermittent catheterisation. This is consistent with the commonest complication reported in the past for both elective and emergency surgery especially among the closed excisional haemorrhoidectomy compared to energy-devise excisional haemorrhoidectomy (Simillis et al., 2009). About 75% of our cohort had the procedure done under spinal anaesthesia which could have contributed to the self-limiting acute urinary retention. The median hospital stay was four days, and it was comparable to previous study with the duration of hospital stays between 3 to 5 days (Borse & Dhake 2016). However, in our cohort, some patients required longer stay due to longer emergency waiting time as they were prioritised against more life-threatening emergency procedures.

In our cohort, there were four recurrences within the 12 months follow-up; two of which complains of per rectal bleeding and the rest experienced prolapsed haemorrhoids. This is earlier than previously reported of 1.8% after 2 years (Gravié et al., 2005). This could be owing to our treatment plan that only the symptomatic prolapsed haemorrhoid column were excised and not all the three columns at the index surgery. None of our patients experienced faecal incontinence or stricture during follow-up which consistent with previous reported low incidence rate of 4.4% after emergency excisional haemorrhoidectomy (Eu et al., 1994).

Our study was limited by the retrospective observational design, which could potentially present with reporting and other confounding bias. There was no control arm to compare the outcome and complications. The strength of our study lies on the high volume of excisional haemorrhoidectomy performed in our specialized centre. In future study design, multi-centre study including those centre that only adopt non-operative approach in acute haemorrhoidal crisis and design a cost-effective analysis to allow us to conclude the cost-effectiveness of this procedure.

CONCLUSION

Emergency excisional haemorrhoidectomy is relevant and relatively safe and effective option to provide immediate symptomatic relieve in managing acute haemorrhoidal crisis with acceptable and self-limiting complication rate.

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