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Transanal Haemorrhoidal Dearterialisation and Rectal Mucopexy: Clinical Outcomes and Patient Perspectives

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Abstract

Introduction: Transanal Haemorrhoidal Dearterialisation (THD) has evolved as a surgical technique over time. THD can be combined with Rectal Mucopexy (THD-RM) to aid in the reduction of haemorrhoidal prolapse.

Aims: Our aims were to assess short and long term clinical outcomes after THD-RM and to assess patients' satisfaction following THD-RM.

Methods: All patients who underwent THD-RM at our Hospital from 2014 were included. Data analysis included a structured questionnaire administered via telephone.

Results: A total of 55 patients underwent a THD-RM between 2014 and 2019. There was a response rate of 87.27%, 48 patients. The most common presenting symptom was bleeding (85.42%). Within 48 h post-operative, 32 patients (66.67%) complained of discomfort or mild pain. Length of time to normal activities varied between 1 day to 57 days (median 14 days). Long term, 37 patients (77.08%) described complete resolution of symptoms. The patient satisfaction questionnaire found 40 patients (83.33%) were very satisfied with their outcomes. Follow-up ranged from 3-65 months (mean 27 months). Seven patients (14.58%) reported recurrence of some symptoms.

Conclusion: Our initial experience with short and long term follow up after THD-RM procedure has been very positive and our results are in line with many others.

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Introduction

Haemorrhoids are a common affliction across the general population causing significant physical distress and social embarrassment. Quantifying the number of people affected is difficult, as some patients never seek medical attention for them. A community-based study suggested 13% to 36% of patients in the UK suffer with haemorrhoids, however NICE report that this could be higher as these studies were based on patients' self reports [1,2]. Patients experience a variety of symptoms with haemorrhoids and these can affect patients' quality of life. In 1995, Morinaga published a new surgical technique for the treatment of haemorrhoids [3]. Transanal Haemorrhoidal Dearterialisation (THD) has evolved from this [4,5]. THD is a minimally invasive procedure and NICE guidelines from 2016 have stated it is an 'efficacious alternative to conventional haemorrhoidectomy or stapled haemorrhoidopexy and that there are no major safety concerns' [2,5]. THD can be combined with Rectal Mucopexy (THD-RM) to aid in the reduction of haemorrhoidal prolapse.

Aims

- To assess short and long term clinical outcomes after THD-RM.
- To assess patients' satisfaction following THD-RM.

Method

All patients who underwent THD-RM under the care of a single consultant colorectal surgeon, since its introduction at our Hospital in 2014 have been included. Detailed data analysis was carried out including a review of clinical presentations; operative notes and post-operative follow up. In addition, a structured questionnaire was administered via telephone. All data was collated and analyzed on an Excel® spreadsheet.

Table 1: Presenting Symptoms.

Presenting Symptoms	No.	%
Bleeding	41	85.42
Pain	17	35.42
Lumps around back passage	14	29.17
Discomfort	10	20.83
Itching	4	8.33
Incontinence	3	6.25
Miscellaneous	5	10.42

Table 2: Symptoms of haemorrhoids within the first 48 hours post operatively.

Symptoms of haemorrhoids within the first 48 hours post operatively		No.	%
Pain	Discomfort or Mild	32	66.67
	Moderate	8	16.67
	Severe	3	6.25
Bleeding	Spot	7	14.58
	Paper & pan	3	6.25
	Significant	0	0
Constipation		5	10.42
Urgency		0	0
Other		3	6.25

Results

A total of 55 patients underwent a THD +/- rectal mucopexy between 2014 and 2019. There was a response rate of 87.27%, (48 patients) to the telephone questionnaire.

Presentation

The most common presenting symptom was found to be bleeding with 85.42% patients stating this. Other symptoms included; pain (35.42%), lumps around the back passage (29.1%), discomfort (20.83%), itching (8.33%) and incontinence (6.25%). Five patients complained of other miscellaneous symptoms (Table 1).

Short term follow-up within 48 hours post-operative

A 32 patients (66.67%) complained of discomfort or mild pain (resolved by simple analgesics), 8 patients (16.67%) complained of moderate pain (resolved by strong analgesics) and 3 patients (6.25%) complained of severe pain (requiring one or more doses of intravenous analgesia). Seven patients (14.58%) complained of spotting of blood, 3 patients (6.25%) complained of bleeding on the paper and in the pan and no patients complained of significant bleeding requiring re-admission. No patients complained of urgency, 5 patients (10.42%) complained of constipation and 3 patients (6.25%) complained of other symptoms (Table 2).

Return to normal activities

Patients' length of time until they were back to normal activities varied between 1 day to 57 days (median 14 days). Thirteen patients (27.08%) reported they were back to normal activities in 1 week. The least time taken to get back to normal activities was 1 day (Figure 1).

4-6 weeks post-operatively

79% of patients reported being symptom free. No patients complained of pain, other symptoms reported are shown below (Table 3).

Table 3: Symptoms of haemorrhoids at 4-6 weeks post operatively.

Symptoms of haemorrhoids at 4-6 weeks post operatively	No.	%
None	38	79.17
Discomfort	4	8.33
Itching	2	4.17
Bleeding	1	2.08
Urgency	1	2.08
Pain	0	0
Other	2	4.17

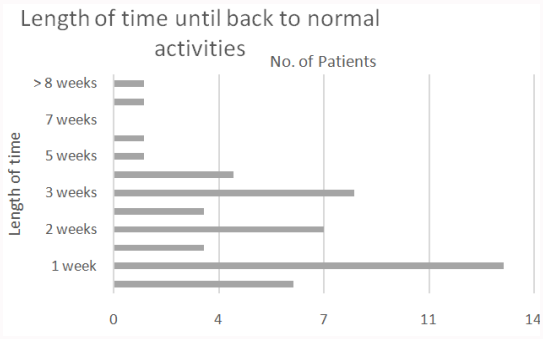

Figure 1: Length of time until back to normal activities.

Long term follow-up

A 37 patients (77.08%) described complete resolution of symptoms. Eight patients (16.67%) described their symptoms as partially resolved and only 3 patients (6.25%) described their symptoms as ongoing. Of these 3 patients, 1 has not sought any further clinical treatment, another has ongoing symptoms from a rectocele and is awaiting gynecology input and the third is awaiting treatment for an anal fissure. The patient satisfaction questionnaire demonstrated that 40 patients (83.33%) were very satisfied, 7 patients (14.58%) were satisfied to some extent and 1 patient (2.08%) was dissatisfied; however, this patient has not sought any further treatment. Follow-up ranged from 3-65 months (mean 27 months). Seven patients (14.58%) reported recurrence of some symptoms. Five of these were successfully managed by lifestyle changes, 1 needed another THD-RM and 1 is currently awaiting clinical review.

Discussion

Haemorrhoids present with a vast array of symptoms. The most common symptom is painless bright rectal bleeding (NICE, 2016) which was mirrored in our study [2]. BMJ best practice states that pain and discomfort can be 'a feature of uncomplicated internal or external haemorrhoids' which is similar to our findings with more than 35% of our patients presenting with pain and discomfort [6]. The surgical management of haemorrhoids has many different options. THD-RM was introduced in our Hospital as one of the options in 2014. NICE states that the THD is 'an efficacious alternative to conventional haemorrhoidectomy or stapled haemorrhoidopexy'[2]. Sajid conducted a systematic review comparing THD with stapled haemorrhoidopexy and found that THD was associated with less post-operative pain [7]. This study has shown that the majority of patients only had discomfort or a mild degree of pain in the initial post-operative period. Toledano looked at their first 70 patients who underwent a THD and reported an average number of 14 days away from work [8]. Our catchment population has a high unemployment

rate and therefore, rather than looking at 'days away from work', we have focused on 'return to normal activities' as an end point. We found this ranged from 1-57 days (median 14 days). It is worth noting however, 'normal activities' differ among patients and the perception of returning to normalcy may differ from patient to patient. We have demonstrated in this study that the majority of patients do not have post-operative pain at 4 to 6 weeks postoperatively, this concurs with other published literature [5]. Giordano [9] published a systematic review of 17 articles including 1,996 patients. They have reported that only 18.5% complained of post-operative pain, which is a smaller proportion than our own data suggests, however, there is no classification of pain in this paper and therefore it is difficult to make direct comparisons with our study. Our data has shown a complete or partial resolution in symptoms in over 90% of patients, which is comparable to other publications [9,10]. Our study has also included a patient survey which has confirmed good or excellent satisfaction in nearly 98% of patients. These results are similar to the findings of La Bella who found that 92% of their patients were highly satisfied at 1 year follow-up and Wilkerson who found that 91% of their patients would undergo THD procedure again [5,11].

Conclusion

Our initial experience with short and long term follow up after THD-RM procedure has been very positive. Our results are in line with many others which again highlight the effectiveness of this procedure for symptomatic haemorrhoids. This procedure is now being rolled out throughout our department as well as other hospitals in the region.

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