
Open hemorrhoidectomy under local anesthesia for symptomatic hemorrhoids; our experience in Ile –Ife, Nigeria

Olusegun Isaac Alatishe ^{12,*}, Augustine E Agbakwurul¹, Augustine O Takure¹, Adewale O Adisa Adekunle A Akinkuolie¹

1. Department of Surgery, Obafemi Awolowo University Teaching Hospital Complex, Ile – Ife, Nigeria.
2. Department of Anatomy and Cell Biology, College of Medicine, Obafemi Awolowo University, Ile – Ife, Nigeria.

*Corresponding author: Department of Surgery, Obafemi Awolowo University Teaching Hospital Complex. P.M.B 5538, Ile-Ife, Osun state, Nigeria. Mobile:234-803-385-9587 segunalatishe@yahoo.co.uk

SUMMARY

Background: Ligation-excision hemorrhoidectomy is considered the gold-standard treatment for prolapsed hemorrhoids. The procedure is commonly done under general or regional anesthesia. This study is aimed to assess the feasibility and tolerability of open – hemorrhoidectomy under local anaesthesia in our setting.

Methods: This is a prospective study carried out in Obafemi Awolowo University Teaching Hospital Complex, Ile Ife, Nigeria, over a 5-year period. All consenting adult patients with prolapsing hemorrhoids were offered Milligan – Morgan hemorrhoidectomy under local anesthesia. They were assessed for tolerance and complications.

Results: More than 95% of patients tolerated the procedure with manageable complications.

Conclusions: Open excisional hemorrhoidectomy under local anesthesia is feasible, safe and well tolerated in our environment and may encourage early presentation of patients with piles to hospital.

Keyword: Open hemorrhoidectomy, local anesthesia, Nigeria.

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Introduction

Symptomatic hemorrhoid is the most common anorectal disease seen in most general practice [1]. The incidence could be as high as 36.4% [2]. Most may be amenable to conservative non-surgical treatment. Surgical options become the treatment of choice when conservative management has failed or in very severe disease [2-3]. Ligation-excision hemorrhoidectomy described by Milligan et al [4], which has been modified variously [5-8], is considered the gold standard surgical treatment for this condition. The operation usually required postoperative hospitalization, though recently, this had been done as a day case [9]. Day case hemorrhoidectomy is preferably done under a mixture of local anesthetic agents because general and regional anesthetics are often associated with nausea, vomiting,

hypertension, urinary retention and motor blockade of the lower limbs, causing delay in mobilization and discharge from hospital. In previous study where local anesthetic agents had been used, patients' population in the study had grade 1 and 2 hemorrhoid [9-10]. Hemorrhoidectomy under local anaesthesia is likely to be preferred in Nigeria where there abound a lot of misconceptions about the disease and its treatment. Many patients also, refuse surgical options generally because of their reservations about general anesthesia. It has been documented that many Nigerian accept surgical option more readily when local anaesthesia is to be used [11]. Motivated by this, we embarked on this prospective study aimed at evaluating the feasibility, acceptability and tolerance of excisional hemorrhoidectomy under local anaesthesia in patients with severe hemorrhoids.

Methods

Study location

The study was conducted at the Obafemi Awolowo University Teaching Hospitals Complex (OAUTHC), Ile – Ife, Osun State in Southwest Nigeria. The hospital services the rural and semi-urban agrarian communities in the southwestern Nigeria. The hospital serves as the referral tertiary hospital for an estimated population of approximately 7.7 million persons in the southwestern states of Nigeria.

Study population

Twenty – two consecutive patients over a 5-year period (August 2001 – July 2006) who presented with third and fourth- degree hemorrhoids or second degree which has failed to respond to conservative management and who consented to open hemorrhoidectomy under local anesthesia (LA) were recruited into the study. The study received ethical clearance from the ethical committee of the Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Nigeria.

Patients considered to be American Society of Anesthesiologist grade 4 or 5, and those with coagulopathy, bladder outlet obstruction, associated colorectal tumours or other anorectal disease were excluded from the study. Patients were admitted overnight when fit except in emergencies. Pre-operatively, all patients had full blood count, stool microscopy and proctosigmoidoscopy. Other investigations like chest X-ray and electrocardiography were done if patients had elevated blood pressure.

Technique

Premedication was achieved with intramuscular pentazocine 30mg (12patients) or pethidine 50 – 100mg (10 patients). The premedication was to ensure conscious sedation during operation. Patients were placed in lithotomy position with intravenous fluid in situ.

All operations were performed by the second author. Before the commencement of the operation, a local anesthetic anal block was performed by perineal infiltration and pudendal nerve blocks (within the Alcocks canal of ischio – rectal fossa) using 40ml of 0.5% Lignocaine with 1:200,000 adrenalin (figure 1 – 4). Twenty millimeters was injected to achieve ring block around the anal opening, while 10mls each was injected on either side to achieve pudendal nerve blocks. All patients had standard ligation and excisional hemorrhoidectomy. The skin tags were excised when

present. Intraoperatively pain assessment was done using modified visual analogue scale by the first author (Table 3). Patients who could not tolerate the procedure under local anaesthesia were converted to general anaesthesia. At the end of surgery, the anal canal was packed with Lignocaine gel impregnated gauze for hemostasis and some analgesia. Further post operative analgesia was achieved by use of intramuscular pentazocine given 30mg every 6hours for the first 24hours; thereafter tramadol tablets 100mg 8 hourly were given orally with 10mg of Diazepam at night for the next 5days. All patients were placed on perioperative metronidazole for 24hours

Twice daily sitz bath and after each defecation were ensured. Patients also had 10mls of liquid paraffin thrice daily with adult diet (solid food plus roughages) commenced from the same day of operation. All patients were assessed daily for post operative bleeding, and were discharged home to clinic within 48 hours of surgery after ensuring adequate anal function by digital examination. Follow up was for at least one year. Anal dysfunction was assessed at each visit.

Data collection and analysis

A standardized data collection instrument was designed to keep the data for all the patients. Patient's sociodemographics, grade of the haemorrhoid, duration of symptoms and the modified visual analogue rating were recorded. The complications identified were also recorded. Data entry, editing and analysis were conducted using SPSS version 11.0 (SPSS Institute, Chicago, IL).

Results

The total numbers of patients who present with symptomatic hemorrhoids during the 5-year study period were one hundred and twenty. Only 22(18.3%) patients consented for the ligation and excisional haemorrhoidectomy under local anesthesia. Eighty-eight (73.3%) patients were managed conservatively, 8(6.7%) had surgery under spinal anaesthesia and 2(1.7%) patients had surgery under general anesthesia. Their age ranged from 25 to 65 years, median 43years, and mean 44.73years (SD 13.24). Among the consenting patients, males accounted for 12(54.5%) while females were 10(45.5%) [Table1]. The duration of the symptoms of hemorrhoids before presentation was between 6months to 15years (median 5years). All the studied patients presented with prolapsing

hemorrhoids with more than 75 percent having third and fourth degree (table 2, figures 1, 2 and 5). Nineteen pile masses were located at the position of 3 O'clock, 18 at 7 O'clock, while 15 were at 11 O'clock. Three of the hemorrhoids were associated with thrombosis.

Table 1: Age and Sex Distribution

Frequency	Sex	
	Male	Female
21 – 30	1	4
31 – 40	4	1
41 – 50	3	3
51 – 60	1	2
61 – 70	3	-
Total	12	10

Duration of surgery ranged between 35 to 65 minutes, median 60 minutes, and mean 57.7 minutes (SD 12.5). The visual analogue rating of the patients were presented in table 3. Twenty one patients tolerated the local anesthesia. One patient (4.5%) had to be converted to general anesthesia because he could not tolerate the procedure under local anaesthesia. The time from the administration of the local anesthesia to the first sensation of pain was between 60 to 90 minutes for most patients. Overall complication rate was 31.82%. No patient had significant primary hemorrhage (blood loss was between 25 – 50mls). Two patients (9.1%) had reactionary hemorrhage manifesting by fully soaked anal gauze pack.

Table 2: Degree of Hemorrhoid

	Frequency	Percentage
1st degree	-	-
2nd degree	5	22.7
3rd degree	12	54.6
4th degree	5	22.7

Table 3: Modified Visual Analogue

Grades	0	Not acceptable
	1	Poor (Converted to general anaesthesia)
	2	Fair (pain and discomfort, augmented with diazepam injection)
	3	Good (little discomfort and complaints)
	4	Excellent (no complaints)
Tolerance	Rating	Frequency
	0	Nil
	1	4.6%
	2	22.7%
	3	72.7%
	4	0.0%

This however stopped spontaneously after repacking. Another 2 patients had acute urinary retention which resolved spontaneously after reassurance and analgesics. Two patients (9.1%) had anal stenosis which later responded to serial digital anal dilatations over 3 months. No incidence of anal incontinence in all the patients.

Table 4: Complications after surgery

Complication	Frequency	Percentage (%)
Reactionary Bleeding	2	9.15
Leakage of Fluid faces	2	9.1%
Urinary retention	2	9.1%
Anal Stenosis	2	9.1%
Recurrence	Nil	0.0%
Total	8	36.4%

Discussion

Local anesthesia (LA) was first introduced to surgical procedure done for haemorrhoids with the aim of controlling pain which usually complicate the procedure. Subsequently, it was considered that the procedure can be done completely under LA. Surgeries done under LA have some important advantages. These advantages include early ambulation and subsequent discharge from the hospital, reduction in total cost of the procedure and it encourages doctor-patients interaction during the procedure[11]. All these advantages are much more relevant in our environments where most of the patients seen in our center belong to the low socioeconomic status and where many misconceptions about the causes of haemorrhoids abound. Several patients seen in our center are afraid of postoperative complications and hence, most decline surgery even when indicated. Some of these fears like fear of impotence for men after surgery are unfounded. Low total cost of the procedure and assurance of being awake during the procedure enhanced our patients' acceptability of surgery[12-13].

Achieving adequate analgesia during Ligation-excision hemorrhoidectomy made some surgeon to prefer spinal or general anesthesia[14-15]. Some recent studies had shown that adequate pain control can be achieved with the use of local anesthesia when patients are medically fit and psychologically prepared for the procedure [16-17]. This study further corroborated the fact that hemorrhoidectomy under LA is not only well tolerated but practicable and feasible in our locality where this concept has not been widely practiced.

Though patients were not stratified based on their age group in this study, both young and old patients tolerated the procedure well.

Pain is the most common complication of hemorrhoidectomy [16,18]. Immediate post operative pain control and patient's comfort in the immediate post operative course following the use of local anaesthesia would have been improved by the continued effect of the local anaesthesia and pre-operative analgesia [18]. The presence of adrenaline in the Lignocaine may also be helpful to reduce intraoperative bleeding which was observed during the procedure. While local anaesthesia together with short-acting intravenous sedation avoids problems associated with general and regional anaesthesia, early complications of surgery remain unchanged. The complications seen in this study were not different from other studies [19-21].

It is hoped that this work, though with a small number of patients may prompt more surgeons to offer local anaesthesia to patients undergoing hemorrhoidectomy, as this may encourage early presentation to hospital.

References

1. Johanson JF, Sonnenberg A. The prevalence of hemorrhoids and chronic constipation. An epidemiologic study. *Gastroenterology*. 1990; **98**:380-386.
2. Davies RJ. Haemorrhoids. *Clinical evidence*. 2006; **15**:1-2.
3. Dennison AR, Wherry DC, Morris DL. Haemorrhoids. Nonoperative management. *The Surgical Clinics of North America*. 1988; **68**:1401-1409.
4. Milligan ETC, Morgan CN, Jones LE, Officer R. Surgical anatomy of the anal canal, and operative treatment of haemorrhoids. *Lancet*. 1937; **2**:1119-1129.
5. Reis Neto JA, Quilici FA, Cordeiro F, Reis Junior JA. Open versus semi-open hemorrhoidectomy: a random trial. *International Surgery*. 1992; **77**:84-90.
6. Chung CC, Ha JP, Tai YP, Tsang WW, Li MK. Double-blind, randomized trial comparing Harmonic scalpel hemorrhoidectomy, bipolar scissors hemorrhoidectomy, and scissors excision: Ligation. *Diseases of the Colon and Rectum*. 2002; **45**:789-794.
7. Jayne DG, Botterill I, Ambrose NS, Brennan TG, Guillou PJ, O'Riordain DS. Randomized clinical trial of LigaSure versus conventional diathermy for day-case haemorrhoidectomy. *British Journal of Surgery*. 2002; **89**:428-432.
8. Milito G, Gargiani M, Cortese F. Randomised trial comparing Liga Sure haemorrhoidectomy with the diathermy dissection operation. *Techniques in Coloproctology*. 2002; **6**:171-175.
9. Ho KS, Lu LW, Hear SM, Seow-Choen F, Chan YW. Randomised clinical trial of haemorrhoidectomy under a mixture of local anaesthesia versus general anaesthesia. *British Journal of Surgery*. 2000; **87**:410-413.
10. Hunt L, Luck AJ, Rudkin G, Hewett PJ. Day-case haemorrhoidectomy. *British Journal of Surgery*. 1999; **86**: 255-258.
11. Mutihir JT, Aisien AO, Ujah IA. Anaesthetic experience in female sterilisation at Jos University Teaching Hospital, Nigeria. *East African Medical Journal*. 2007; **84**:374-378.
12. Odusanya OO, Babafemi JO. Patterns of delays amongst pulmonary tuberculosis patients in Lagos, Nigeria. *BMC Public Health*. 2004; **4**:18.
13. Adegboyega AA, Onayade AA, Salawu O. Care-seeking behaviour of caregivers for common childhood illnesses in Lagos Island Local Government Area, Nigeria. *Nigerian Journal of Medicine*. 2005; **14**:65-71.
14. Law WL, Tung HM, Chu KW, Lee FC. Ambulatory stapled haemorrhoidectomy: a safe and feasible surgical technique. *Hong Kong Medical Journal*. 2003; **9**: 103-107.
15. Gabrielli F, Chiarelli M, Cioffi U, Guttadauro A, Simone M, Di Mauro P, Arriciati A. Day surgery for mucosal-hemorrhoidal prolapse using a circular stapler and modified regional anaesthesia. *Diseases of the Colon and Rectum*. 2001; **44**: 842-844.
16. Vinson - Bonnet B, Coltat JC, Fingerhut A, Bonnet F. Local infiltration with ropivacaine improves immediate postoperative pain control after haemorrhoidal surgery. *Diseases of the colon and Rectum*. 2002; **45**: 104 -108.
17. Ong CH, Boon Foo EC, Keng FV. Ambulatory circular stapled haemorrhoidectomy under local anaesthesia versus circular stapled haemorrhoidectomy under regional anaesthesia. *ANZ Journal of Surgery*. 2005; **75**:184-186.
18. Kim J, Lee DS, Jang SM, Shim MC, Jee DL. The effect of pudendal block on voiding after haemorrhoidectomy. *Diseases of the Colon and Rectum*. 2005; **48**: 518 -523.
19. Lam TY, Lam SC, Kwok SP. Feasibility case -controlled study of day - case haemorrhoidectomy. *ANZ Journal of Surgery*. 2001; **71**: 652 - 654.

20. Esser S, Khubchandani I, Rakhmanine M. Stapled haemorrhoidectomy with local anaesthesia can be performed safely and cost effectively. *Diseases of the Colon and Rectum*. 2005; **48**: 1164 – 1169.
21. Lacerda – Filho A, Cunha – Melo JR. Outpatient haemorrhoidectomy under local anaesthesia. *European Journal of Surgery*. 1997; **163**: 935 – 940.