

Ambulatory Proctological Surgery as a Novel Method of Practice

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Research Article

Abstract: In view of time and budget constraints ambulatory proctological surgery is getting popular. Our study is aimed at studying ambulatory proctological surgery as a novel and cost effective method. History finds the beginning of ambulatory anorectal surgery at University of California, Los Angeles in 1962, following which it has evolved over the course of years. Patients who were undergoing elective anorectal surgeries with posterior perineal block as per the inclusion and exclusion criteria at KLES hospital Belgaum between November 2004 to November 2005 formed the subjects of the study, sample size included a total of 30 patients. The present study of ambulatory proctological surgery as a novel method in today's practice holds true as all the patients with posterior perineal block group were ambulatory in less than half an hour of surgery. Most of the patients had mild pain post operatively. 16.7 % patients had urinary retention postoperatively but it was statistically insignificant. 86.67% of patients in the posterior perineal block group were discharged within 24 hours of operation. From our study we conclude that ambulatory proctological surgery is suggested as a novel method of practice especially under posterior perineal block as there is less amount of post operative pain, patients get discharged early, thereby reducing costs and making healthcare more affordable.

Keywords: Ambulatory proctological surgery, Anorectal surgeries.

Introduction

In today's world of time and budget constraints ambulatory proctological surgery is gaining popularity. It is estimated that 90% of all anorectal procedures may eventually be performed in ambulatory setting [1]. The recent advances in anaesthesia, newer drugs have helped to improve outcomes and promise a better patient care. Since its beginning at University of California, Los Angeles, in 1962, ambulatory anorectal surgery under local anaesthesia has evolved over the course of years to include increasingly complex and invasive procedures[2]-[3]. Although Marc-Claude Marti (1941-2001) was the first to describe the posterior perineal block. Lateral internal sphincterotomy for anal fissures has been performed under local anaesthesia with advantage of lesser hospitalization, reduced postoperative discomfort and early healing of wounds[4]. Another study in 1986 adds that more than 90% of anorectal surgeries can be done in an outpatient setting. The use of local anaesthesia for anorectal surgery enhances patient safety

as well as it reduces the costs[1]. Another study comparing local and epidural anaesthesia for haemorrhoidectomy mentions majority of patients were satisfied with outpatient local anaesthesia, helped in reducing their costs and few patients had minor symptoms on discharge in form of bleeding, pain, mucous discharge, urinary retention [5]. Even stapled haemorrhoidectomies are being performed under local anaesthesia with results equivalent to those with general / spinal anaesthesia [6]. Recently a manometric study of the anal sphincter during haemorrhoidectomy using posterior perineal block before and after procedure revealed significant reduction of resting and squeeze pressures of anal canal allowing surgeons to perform radical haemorrhoidectomy in the overnight stay setting with optimal intra and postoperative analgesia, safe sphincter relaxation, lower postoperative complications, and lower costs to the public health service [7] Our study is aimed at studying ambulatory proctological surgery as a novel and cost effective method.

Aims and Objectives

To study ambulatory proctological surgery as a novel method in today's practice.

Materials and Methods

Study design

Prospective clinical trial

Source of data

Patients who were undergoing elective anorectal surgeries as per the inclusion and exclusion criteria at KLES hospital Belgaum between November 2004 to November 2005 formed the subjects of the study

Sample size included a total of 30 patients

Inclusion criteria

1. All patients undergoing elective anorectal operations for hemorrhoids, anal fissures and anal tags.
2. Age: 18-65 years

Exclusion criteria

1. Ano-rectal and perianal abscess, fistula in ano
2. Known allergy to local anaesthesia

3. Uncooperative patients
4. Bleeding / coagulation disorders
5. Patient with ischaemic heart disease
6. Pregnant patients

Anaesthesia used: Posterior perineal block

After a thorough physical examination routine investigations were done in form of complete blood count, random blood sugar, serum creatinine, blood urea, urine routine, bleeding time, clotting time, ECG, xylocaine test dose given following which posterior perineal block was given. Patients were post-operatively assessed with respect to mainly for onset of postoperative ambulation.

Procedure of posterior perineal block

After giving a test dose under strict aseptic precautions the procedure involves injection of mixture of 15 ml of 1% lidocaine ,15 ml of 0.25% bupivacaine with epinephrine 1: 2,00,000 and sodium bicarbonate 8.4% 3ml . 1 to 2 ml of this mixture is injected intradermally, with needle pushed towards sacrum and 5 ml injected presacrally. Afterwards another 10 ml is injected around ischiorectal muscle, and then the needle is moved deeper in lateral and cranial directions, and peri-anal area is injected.

Statistical analysis

Statistical analysis was done applying p value where P<0.05 was significant.

Table 1: Onset of post operative ambulation

Post-operative duration (hours)	PPB (No. of patients)
<0.5	30

Table 2: Degree of pain post-operatively at 1hr

Degree of pain/VAS	PPB
Mild	24
Moderate	6
Severe	-

Table 3: No. of patients with urinary retention over a 12 hour post operative period

No. of patients with urinary retention over a 12 hour post operative period	
PPB	5

Table 4: Hospital stay in days

Hospital stay in days	PPB
3	26
4	4
5	-

Table 4: Gender wise distribution of patients

Type of block	Males	Females
PPB	15	15

Table 5: Disease wise distribution of patients

Type of block	Fissure in ano	Hemorrhoids	Hemorrhoids + Fissure in ano
PPB	18	9	3

Results

1. Onset of post operative ambulation as depicted in table (a), all the 30 patients in PPB group were ambulatory in less than 30minutes (0.5 hour) post-operatively.

Onset of duration of post. op ambulation	P value	Significance
<30mts(0.5hr) post op.	0.00	Significant

2. Most patients had mild pain postoperatively as per VAS score.

3. 5 patients developed urinary retention postoperatively.

4. Hospital stay as depicted in table no. (d), 26 of 30 cases of PPB got discharged on 3rd day of admission p values at 3rd day are <0.0001 indicating significance.

5. Most of operated patients were fissure in ano compared to hemorrhoids showing statistical significance.

Discussion

Anorectal diseases are one of the commonest diseases which present frequently to surgical department. When operative option is given to these patients, naturally the patients prefer the shortest course of hospital. The present study of ambulatory proctological surgery as a novel method in todays practice holds true as all the patients with posterior perineal block group were ambulatory in less than half an hour of surgery. Most of the patients had mild pain post operatively.16.7 % patients had urinary retention postoperatively but it was statistically insignificant. 86.67% of patients in the posterior perineal block group were discharged within 24 hours of operation Of the remaining 3 patients were discharged in the next 48 hours 2 were diabetic who were observed for an extra day for evidence of any local infection, while the other patient had moderate degree of localized pain. Our study also showed significant statistical differences when the underlying anorectal condition is either fissure in ano or haemorrhoids. A large number of fissure in ano patients have formed a large group with early ambulation, showing partly synonymous results with studies by Gordon PH, Vasilevsky CA who have done lateral internal sphincterotomy under local anaesthesia, and suggested reduced hospitalisation and post operative discomfort which is minimal and wounds heal quickly[4]. Our study of early post operative ambulation and hospital discharge is partly consistent with study by Gabrielli F, Cioffi U, Chiarelli M, Guttadauro A, De-Simone M, [7]. Our study is also consistent to the previous studies done by B. Roche and M.C Marti on outpatient proctological surgeries under posterior perineal block in 3725 cases with lesser complications over a 12-year period [8]. The limitations of this study or the scope for further work lie in conducting similar studies over a larger population.

Conclusion

From our study we conclude that ambulatory proctological surgery is suggested as a novel method of practice especially under posterior perineal block as there is less amount of post operative pain, patients get discharged early, thereby reducing costs and making healthcare more affordable.

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