

# Ambulatory Anorectal Surgery-Is it Feasible Locally?

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## Abstract

*Currently, anorectal procedures are done in an inpatient setting in most local hospitals. This study examines the feasibility of performing these procedures in an outpatient setting.*

*Patients (age range 16 to 65 years) with anorectal complaints requiring surgery were randomized into 2 groups of 40 patients each. Procedures performed included haemorrhoidectomy, fistulotomy, lateral sphincterectomy, excision of rectal polyps and examination under anaesthesia. The first group was managed in the conventional inpatient setting with regional anaesthesia. The second group was done on an ambulatory basis with local anal block. Intravenous and oral ketorolac was used for postoperative pain control and patients were discharged about 4 hours postoperatively.*

*No complications were noted in the second group while the first group had 2 cases of acute urine retention requiring temporary catheterisation and 2 cases of significant bleeding requiring hospitalisation. Pain and satisfaction scores for both groups were similar.*

*Anorectal surgery can be performed in an outpatient setting locally with safety and efficacy. The cost savings can be significant.*

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**Key words:** *Anorectal procedures, Ketorolac, Local anaesthesia, Urinary retention*

## Introduction

Economic and social pressures are compelling surgeons to modify their practice. An increasing number of procedures are being done in an outpatient setting. Currently, anorectal procedures are done in an inpatient setting in most local hospitals. This paper examines the feasibility of performing such procedures on an outpatient basis.

## Materials and Methods

Patients presenting with anorectal complaints requiring surgery at our outpatient clinics between July 1996 and July 1997 were randomised into two groups of 40 patients each. Their ages ranged from 16 to 65 years, with 60% of the patients between 20 and 40 years of age (Fig. 1). All patients were ASA class I or II and male patients outnumbered female patients 7:3. The procedures performed included haemorrhoidectomy, fistulotomy, lateral sphincterotomy, excision of anal polyps, drainage of abscesses and examination under

anaesthesia (Table I). The two groups were comparable in terms of age and sex distribution and the types of operations performed.

Group 1 had inpatient surgery. The patients were admitted one day prior to surgery and fasted overnight. Regional anaesthesia was used for the surgery. Postoperative pain was controlled with intramuscular pethidine and oral paracetamol. In addition, patients received daily sitz baths and bulk stool softeners. Patients were sent home as soon as they could ambulate. Defecation was not necessary before discharge.

Group 2 had ambulatory surgery. They were allowed a small amount of clear fluids on the morning of the surgery. Intravenous sedation with 1 to 2 mg of midazolam and 20 to 25 mg of pethidine was combined with local anaesthesia. This consisted of a perianal and an anal canal block using a 20 ml mixture of 1% lidocaine, 0.25% bupivacaine and adrenaline 1:200 000 using the method described in other reports.<sup>1,2</sup> A minimum amount of intravenous fluid was infused intra-

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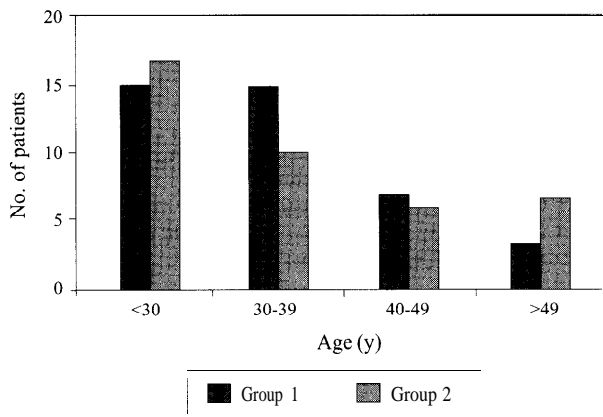


Fig. 1. Age distribution of patients

TABLE I: ANORECTAL PROCEDURES PERFORMED

Procedure	Group 1 n (%)	Group 2 n (%)	Total no. of patients (%)
Haemorrhoidectomy alone or combined with another procedure	28 (70%)	28 (70%)	56 (70%)
Fistulotomy	7 (17.5%)	5 (12.5%)	12 (15%)
Lateral sphincterotomy	2 (5%)	1 (2.5%)	3 (4%)
Drainage of abscess	1 (2.5%)	3 (7.5%)	4 (5%)
Excision of polyps	1 (2.5%)	2 (5%)	3 (4%)
Examination under anaesthesia	1 (2.5%)	1 (2.5%)	2 (2%)

TABLE II: POSTOPERATIVE PROBLEMS AND OUTCOMES

Problem/Outcome	Group 1 Inpatient surgery	Group 2 Ambulatory surgery	P value
Bleeding	2 (5%)	0 (0%)	0.15*
Urinary retention	2 (5%)	0 (0%)	0.15*
Pain control	37 (93%)	36 (90%)	0.69*
Satisfaction	31 (78%)	32 (80%)	0.79*

\* Not statistically significant

operatively.<sup>3</sup> Patients were monitored for 4 hours postoperatively and then sent home after administration of intravenous ketorolac. Oral ketorolac and paracetamol were continued at home. Voiding was not required before discharge. Sitz baths were continued at home and patients were given a telephone number to call in the event of any problems that may occur.

The first outpatient appointment was one to two weeks later. Patients had their pain severity graded at one week and their degree of satisfaction graded at two months (Table II).

## Results

No complications were noted in group 2, while group 1 had 2 cases (5%) of acute urinary retention requiring temporary catheterisation and 2 cases of significant bleeding requiring hospitalisation (1 patient required blood transfusion).

Group 1 patients had an average of 4.2 days of hospitalisation, while group 2 patients were discharged on the same day of surgery. Ninety-three per cent of patients (37 out of 40) in group 1 and 90% of patients (36 out of 40) in group 2 had satisfactory to good pain control. Both groups expressed similar degrees of satisfaction with 78% patients (31 out of 40) in group 1 and 80% patients (32 out of 40) in group 2 expressing complete satisfaction. Only 1 patient from group 1 and 2 patients in group 2 were dissatisfied with the procedure.

## Discussion

The anaesthesia of choice for anorectal surgery in most local hospitals is regional anaesthesia such as spinal or caudal blocks. This form of anaesthesia is unsuitable for someone who will be going home in a few hours. Although general anaesthesia for anorectal surgery is well established, it often requires intubation with its associated postoperative discomfort and does not afford good exposure in the lithotomy position especially if the depth of anaesthesia is light. We have found that local anaesthesia with perianal and anal canal block gives adequate duration and depth of anaesthesia and results in excellent relaxation of the anal canal.<sup>1</sup> More importantly, it allows placement of the patient in the prone jack-knife position which gives superior exposure to the anal canal. One disadvantage is that there is inadequate flaccid relaxation of the puborectalis muscle and therefore lesions deep in the rectum (e.g. high fistulas, rectal polyps) cannot be removed. In addition, highly anxious patients and patients in whom a long operation is anticipated are not good candidates.

Another concern is that of postoperative pain control. Postoperative pain after anorectal surgery is severe and often requires parenteral narcotics which are usually administered within the hospital. There have been some reports of successful outpatient subcutaneous infusion of morphine sulphate with a home infusion pump but this is rather inconvenient and adds to the cost.<sup>4</sup> We have found ketorolac useful as it provides equivalent analgesic effect to narcotics but without the side effects of nausea, psychomotor impairment, respiratory depression, gastrointestinal disturbances like constipation and possibly urinary retention.<sup>5,6</sup> Because ketorolac is available in both parenteral and oral forms, it allows follow-on treatment with oral ketorolac after intravenous ketorolac is given early postoperatively. Ketorolac should be avoided in patients with a history of asthma, peptic ulceration and allergy to aspirin.

Although there were 2 cases of bleeding in the inpatient group versus none in the outpatient group, this difference was not statistically significant. This is not unexpected as the operative technique was similar in both groups. Urinary retention is an established compli-

cation of anorectal surgery especially haemorrhoidectomy.<sup>7-9</sup> The reported incidence averaging 15% has ranged from less than 1% to a high of 52% of patients. The exact aetiology is unknown and detrusor muscle dysfunction or reflex urethral spasm secondary to pain have been implicated.<sup>10-13</sup> Previous reports have demonstrated a decreased incidence of urinary retention amongst patients having ambulatory anorectal surgery. There were 2 cases of urinary retention in the inpatient group versus none in the ambulatory group. Although the difference was not statistically significant, we believe that ambulatory anorectal surgery reduces the incidence of this postoperative problem for the following reasons:<sup>2</sup>

1. It allows fluid restriction in the perioperative period. Anaesthetists often have to infuse increased amounts of intravenous fluids to combat the hypotension accompanying regional anaesthesia. Hopping, Bailey, Ferguson and several others have reported the successful use of fluid restriction in reducing postoperative urinary retention.<sup>3,14-17</sup>
2. Early ambulation aids the patient in passing urine. The patient with regional anaesthesia often needs to stay in a recumbent position for several hours postoperatively.
3. The administration of narcotics postoperatively probably increases the risks of urinary retention. Ketorolac can be extremely useful as 30 mg of ketorolac has the equivalent analgesic effect as 100 mg of pethidine.<sup>6</sup>
4. The inpatient environment and the constant inquiry by hospital staff regarding the need to urinate increase the anxiety level of the patient. A patient that has been reassured before discharge is more likely to relax sufficiently to urinate in his more familiar home surroundings.

This study demonstrates that anorectal surgery can be performed on an ambulatory basis with safety and efficacy. In addition, there may be potential benefits in a

decreased incidence of urinary retention. There is also a substantial cost savings.

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