

The Indian Scenario of Day Care Surgery in Proctology

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Abstract

The aim of this study was to determine the results of proctological surgeries carried out in a private nursing home on an outpatient basis.

The study was carried out at Gupta Nursing Home, Nagpur, between June 1997 and July 2004. Patient demographics, type of anaesthesia used, the type of operation and postoperative complications, were analyzed. The last follow up was carried out after 2 years of the procedure. Patient satisfaction with regard to day care treatment was assessed at the last follow-up using a visual analogue scale.

The study included 2678 patients. Mean age of the patients was 39 years. 67% patients were male. There was no mortality. The mean duration of hospital stay was 9.2 hours [range 4-23 hours]. Complication rate was 1.6%. The mean patient satisfaction score was 9.2.

These results seem to confirm the feasibility of proctological day surgery in almost all patients, with both a considerably cost reduction and enhanced patient comfort and compliance.

Introduction

Ambulatory surgery or day care surgery is a clinical admission for a surgical procedure, with discharge of the patient on the same working day.

Ambulatory surgery encompasses those surgical interventions that are more complex than office-based procedures performed under local anaesthesia, but fewer complexes than major procedures requiring at least an overnight stay.¹

The potential benefits of ambulatory surgery include more rapid return to the comforts of a home environment, diminished opportunities for nosocomial complications and diminished cost.²

Though increasing number of surgical procedures were performed as day cases, the colorectal surgical practice has been slow to

embrace the concept because of perceived problems with post-operative pain management and bleeding.³

It was in 1973, that Rivkin published his paper on ambulatory proctology surgery.⁴ The rediscovery, improvement and broadening of outpatient resources and utilities occurred during the last three decades, and now it has been estimated that 90% of ano-rectal cases may be suitable for ambulatory surgery. A wide variety of ano-rectal conditions including anal fissures, haemorrhoids, anal fistula, pilonidal sinus, condylomata, abscesses and other miscellaneous conditions have been shown to be amenable to surgery on an outpatient basis.⁵

Despite the social, economic and medical advantages reported by various authors, majority of surgeons are loath to utilize it, either because of difficulty in ensuring adequate pain control, or for fear of postoperative complications. Many times patients themselves are reluctant to give

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consent for day care surgery for lack of knowledge about safety, feasibility and advantages of such surgeries.

Other possible reason could be the lower payment made by the health insurance plan on an erroneous assumption that outpatient surgeries were minor and low risk procedures.^{6,7,8,9}

In this paper we report results of our experience in surgery for various proctological pathologies conducted by us on an outpatient basis during the last seven years. The purpose of this study was to assess patient's response to the ambulatory surgery dedicated to proctology.

Material and Methods

We reviewed the records of all the patients who underwent anorectal procedures in our ambulatory unit between June 1997 and July 2004. Data was collected on age of patients, sex, associated illness, preoperative evaluation; type of anaesthesia used and treatment provided.

The patients who satisfied the following criteria were included in the study.

Patients having good control on systemic diseases like hypertension, diabetes or ischaemic heart disease, patients corresponding to ASA I and II levels, [ASA-American Society of Anesthesiology], medically stable ASA III patients following consultation with the anaesthetist concerned, those who were on anticoagulant therapy on having discontinued the same a week prior to the procedure and an informed willingness to undergo the procedure and an ability to faithfully follow post discharge instructions.

We made sure that the patients were accompanied by a responsible person to take him home and to attend on him at least for next 48 hours with assurance of active participation of family members in

postoperative care.

We excluded minor procedures performed during consultation such as endoscopies, infra red or radiofrequency coagulation of haemorrhoids or their band ligations, evacuation of perianal haematomas or haemorrhoidal thrombectomies, and all major procedures such as extensive rectal surgeries that required long hospital stay.

Our protocol included admission in the morning of the operation and preoperative evaluation by means of ECG, coagulation profile, and blood glucose estimation. The patient, prepared with a dose of Polyethylene glycol on the prior night, was taken in the operative room where a venous line was placed and the anaesthesiologist proceeds to monitor his/her ECG, blood pressure and oximetry.

Seventy per cent of our operations were performed using a short-term general anaesthesia with muscle relaxants. Caudal block or spinal anaesthesia was used for patients who were not found suitable for general anaesthesia. Procedures like pilonidal sinus surgery, removal of condylomata were carried out using local anaesthesia.¹⁰

The procedures were carried out after careful disinfection of the operative field. No intra-anal wound dressing was done except covering the external wounds by an absorbent pad. Patients were kept under observation in the ward for next few hours to contain vomiting, urinary retention, pain or post anaesthesia events, if any.

The patients received a leaflet exhaustively detailing essential post-operative care along with dietary instructions and an elaborate prescription for sitzbath, dressing, application of ointments, analgesics, and laxatives. They were provided with a 24-hour telephone call facility to report any complication or address

any query regarding postoperative care.

The patients were discharged home after applying the following criteria.¹¹

Stable vital signs for at least 2 hours, adequate pain control, minimal nausea, vomiting or dizziness; correct orientation as to time, place and relevant people; adequate hydration; patients having significant risk of urinary retention after having already passed urine, and the patients able to help themselves to the toilet and in dressing-up on their own.

Postoperative care- The patients were instructed to take a warm water sitz bath immediately after each defaecation and again at bedtime. They were asked to apply a cream containing local anaesthetics and antiseptics twice in a day, also, as and when they felt pain or passed stool. Systemic antibiotics were prescribed to patients who were operated for infective pathologies like anal fistula, abscess etc. Emphasis was placed on inducing an early bowel action, so a liberal use of fibre supplement and stool softeners was encouraged.

Patients were instructed to consume analgesics on s.o.s basis to contain pain. The analgesics routinely prescribed were Paracetamol, Tramadol and Diclofenac sodium.

Follow-up - Patients were called in the office at 2 and 4 week post operation. The follow-up was carried till the wounds healed completely. They were asked to rate the level of satisfaction on the 0-10 visual analogue scale (0= unsatisfied, 10= highly satisfied) at the last follow-up.

The late follow-up was carried at least after 2 years of the procedure.

Statistical analysis - Patient's data was entered in to a database and statistical analysis was performed using statistical

software (Graph pad Software, San Diego, CA).

Result

The study included 2678 patients who underwent ambulatory ano-rectal surgery. The mean age of all the patients was 39 years [range 2- 64 years]. 67% patients were male with a mean age of 41 years [range 2-63 years]. The mean age of females was 38.5 years [range 9- 64 years]. As per ASA classification, 72% patients presented with ASA I, while 24% patients presented with ASA II and the remaining patients as ASA III.

The most frequent type of surgery performed was anal sphincterotomy for anal fissures, while the next common surgical procedure was for haemorrhoids.

There was no mortality. The mean duration of hospital stay was 9.2 hours [range 4-23 hours]. There were no episodes of vomiting or nausea that prevented discharge.

Fifty-four of our patients had post-operative complications. Of this 38 were considered minor and only 16 had major complications that required hospital admission. Of the minor complications, urinary retention, perianal thrombosis and faecal impaction were the most common. Urinary retention was treated with one time urinary bladder drainage. None of the patients needed a dwelling catheter. Faecal impaction was resolved by manual extraction in the office. The patients with perianal thrombosis were reassured and the thrombosis resolved by its own in two weeks.

Of the 16 patients with major complications, seven patients had secondary bleeding in the form of sudden, spontaneous and persistent bleeding per anus. All of them were operated for haemorrhoids. They were readmitted. While in six of these patients the bleeding stopped with conservative treatment in the form of local compression, haemostatic medication and rest, one patient needed

examination under anaesthesia with ligation of the vascular pedicle. None of these patients needed a blood transfusion.

Another seven patients reported with septic complications leading to perianal abscess. Six of them had this complication after sphincterotomy for anal fissure and the remaining one patient was operated for haemorrhoids. These patients were treated with incision, drainage and antibiotics. They had uneventful recovery thereafter.

Two patients reported with rather unusual complications. One patient operated for haemorrhoids came with a history of loss of the plastic applicator in the rectum while applying anaesthetic cream with it at home. The applicator was removed under anaesthesia. Another patient came with severe perianal burns allegedly sustained during a warm water sitz bath. He was treated with local wound care and antibiotics.

The mean satisfaction score on visual analogue scale was 9.2.

Discussion

A correct choice of patients suitable for outpatient treatment is of vital importance because enforcement of such treatment in patients who are suitable for in-patient treatment would compromise the method.¹²

For the success of surgical treatment of anorectal diseases it is necessary to be familiar with different surgical methods best suited for the individual patient. After examination, a surgeon may decide to choose either an optimal method or a combination of two, in order to achieve the best effect.¹³

The procedures suitable for day care surgery must entail- no risk of postoperative airway compromise, postoperative pain controllable by outpatient management techniques, minimal risk of postoperative haemorrhage, no need of a specialized

nursing requirement in the postoperative course, and a rapid return to normal fluid and food intake.¹⁴

A day care surgery offers many advantages over the indoor ones as the patient's life is only minimally disturbed with a diminished anxiety. The incidence of nosocomial infection is minimum. There is earlier return to normal activities and a reduced time of work. The patient is usually more comfortable at home. The significant reduction in treatment costs and minimal pressure on hospital resources are the two major achievements of the day-care surgeries.¹⁵

The most challenging problem in ambulatory proctological surgery is postoperative pain.¹⁶ This can be reduced by one or several of the following measures- Infiltration with long-acting anaesthetic drugs after the end of the procedure, administration of non steroidal anti-inflammatory drugs preoperatively and oral administration of opioids.¹⁷

While most of the studies have shown that nearly all the ano-rectal procedures could be performed under local or loco-regional anaesthesia like posterior perineal block or caudal block and a general anaesthesia should be avoided to reduce bleeding risk and the occurrence of complications related to general anaesthesia, we have used all the methods of anaesthesia in our series. The dislike for general anaesthesia may reflect differences in surgical culture and in our patients it caused minimal morbidity.¹⁸

Bleeding and pain are the most frequent complications following proctological procedures. Their intensity however, can be influenced by the procedure and the experience of the surgeon. Through careful haemostasis and wound closure, greatly reduces the risk of bleeding. The intensity of pain experienced by the patient is very much

personality dependent and is in general unpredictable.¹⁹

One of the common complications in our series was urinary retention.²⁰ The reasons for postoperative urinary retention are multiple and they comprise amount of intravenous fluid administered perioperatively, dysfunction of the detrusor, reflex urethral spasm, clinically silent prostatic hypertrophy and fear of pain.²¹ However, none of the patients under our study needed an indwelling catheter.

While few of the patients in our series have contacted us for the postoperative pain, none of them needed readmission. Reassurance, regulation of dietary and bowel habits; improving local hygiene and prescribing an additional dose of analgesics were enough to achieve a satisfactory pain control.

Our experience in ambulatory surgery has made it clear that good patient information and support are vital, as is early outpatient review.²² Patients knowing that they will be seeing a doctor as and when needed, will accept symptoms that may well resolve spontaneously.²³

It is not to overemphasis that there is a need to educate the patients on the safety, economy, accuracy and efficacy of the concept of daycare surgical procedures so that a greater number of patients could opt for and reap the benefits thereof.²⁴

Conclusion

Our study confirms an already well-established observation that day care proctology can be performed with a high degree of patient satisfaction if the patient receives precise and clear preoperative explanation and also postoperative instructions.

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