Outpatient surgery is an old concept which has been recently rediscovered as a result of financial necessity. In previous centuries only the poor and homeless were hospitalized in community or charity hospices while the wealthy were treated at home. With the advance of medicine, including surgery, anaesthesia, and new complex technical and laboratory investigations, the old hospices evolved into modern hospitals. Health care now constitutes the largest part of public spending worldwide. Most of this funding is spent on the cost of hospitalization. The most important reason for ambulatory surgery is to reduce the costs of hospitalization, thus liberating hospital beds for emergency patients.

An important goal of day care surgery is to avoid unnecessary hospitalization, while providing the patient with the same quality of treatment and personal satisfaction as is given to inpatients. It is a sine qua non condition of outpatient surgery that the procedures be performed as safely as if the patients were in hospital.

Outpatient surgery has many advantages. The patient's life style is minimally affected; as he is returned to his usual environment, avoiding hospital routine, rules and restrictions. The patient’s anxiety is lessened by the knowledge that he suffers from a condition that may be treated without hospital admission. It is also important, however, to explain the type of anaesthesia necessary and to emphasise that it will result in a painless procedure. As there is no hospital stay, the risk of hospital cross-infection is reduced. This has been shown for various surgical procedures, including hernia repair, haemorrhoidectomy and various paediatric surgical operations. The operative programme can be planned more easily. There is no admission delay, and better control by the surgeon is achieved. The same surgeon examines the patient, decides on the operative procedure, determines the date of operation and looks after the patient in the postoperative period. This increases the patient’s confidence.

Many reports have shown that patients having ambulatory procedures return to work earlier than inpatients submitted to the same operation. This has a positive effect on the overall cost of treatment.

Many publications have demonstrated that hospital costs are less for outpatients undergoing a procedure than for inpatients. Administration is simplified. This leads to more beds being available for inpatients, and the need for hospital expansion of beds may be lessened.
Outpatient surgery has certain disadvantages, however. The patient may not adhere to the preoperative instructions. The preoperative preparation, especially bowel preparation, may not be adequate. There may be problems of transport from home to hospital and back, as the patient should not drive himself. There must be adequate home support with dressings, meals, convalescence, etc. Analgesia must be adequate. It is essential that the surgical unit must have easy access to resuscitation facilities.

Preoperative preparation

A detailed clinical history and examination is conducted. All patients of ASA class I and some of class II are suitable for ambulatory surgery. The patient should not drive to the hospital. He should have fasted since midnight. Usual medication may be taken. Written consent for the procedure must be obtained after a full explanation of the procedure. Patients are informed prior to surgery about the type of anaesthesia and the amount of pain expected, and the postoperative benefits. This makes the job easier by ensuring full co-operation from the well motivated patient.

Generally alprazolam 0.5 mg. is used to allay anxiety and for sedation on the night prior to surgery, 3 tabs of dulcolax orally to evacuate the bowel. A bowel preparation or small-volume enema may be required to empty the rectum. The patient is asked to pass stool and urine immediately before the operation.

Anaesthesia

a) Anaesthetist is always present for IV sedation and patient monitoring

b) Intravenous sedation used

1. Pethidine 50 mg. Or
   Pentazocine 30 mg

2. Midazolam 2 mg Or Diazepam 10 mg.

3. Ketamine 25 to 50 mg.

c) Local Anaesthetic agents used

d) Xylocaine 2% 30 ml. with or without adrenaline as per the patient’s cardiovascular condition.

e) Sensorcaine 0.5% 20 ml.

The above solutions are mixed and 10 ml. D/W or N/S is added to it to make a 1% xylocaine solution.

On an average for a person weighting more than 50 kg. around 20 to 30 ml of the above solution is used.

Lithotomy position is preferred (except for Pilonidal sinus where prone position is used) or (Jack Knife).

Techniques

1. Ring Block: For fresh cases (not operated previously)

a. Using 26 number needle sub-dermal wheals are raised at the 4 points - 12,3,6,9 0’clock position.

b. The deeper portion at these points are infiltrated next using 1-2 ml of the solution.

c. Using a 25 number long (1,1/2) inch needle which is slightly bent at its point of origin manually for making the infiltration easier in a circular manner, 3-4 ml of the solution is infiltrated in the intermediate areas of the circle, piercing only at the previous anaesthetized points.

d. Compression is applied with pack of gauze or a surgical mop at the anal verge for 5 minutes to allow the local anaesthesia action to start and to prevent haematoma formation at puncture site.

e. This blocks the sphincter and the lower anorectal area excellently allowing all procedure to be carried out successfully
without difficulty.
f. Gradual anal stretching is upto 4 fingers. The planned surgery is carried out. Haemostasis is achieved on table by cautery or suture.
g. Post procedural we put around 20 ml of Vaseline (and a diclofenac suppository) in the rectum to achieve pain relief and a painless motion, post-operatively which is generally otherwise painful.
h. Patient is dressed with T-bandage gamjee compression after surgery. Local dressing with povidone iodine soaked guage and a gamgee pad over it held in position by bandage is given. No intraluminal packs are used. This helps in decreasing the pain and easy voiding in post operative period.
i. Patient are fed after 3 hours and discharged by evening on assuring the discharge criteria mentioned above and patient has passed urine.

2. Pudendal block : For recurrent cases or when there is excessive fibrosis around the anal verge or in chronically infected cases. Inferior haemorrhoidal nerve is blocked using the above solution.

- With a 26 no. needle sub-dermal wheal is raised on either side of the anal verge at the mid point of the line joining the anal verge to anus to the posterior border of ischial tuberosity
- Using a 1 and 1/2 inch long 25 no. needle, this point is pierced perpendicular to the skin and the needle inserted deep and laterally till it touches the medial side of ischial tuberosity. The solution is then injected while withdrawing the needle and surrounding area is infiltrated similarly using a to and fro movement on anteriorly, centre and posteriorly both the sides. This effectively blocks the inferior haemorrhoidal nerve and the procedure is then carried out from point d to i as described above.

Surgical procedure

Patients should be operated on early in the day, with poor-risk and elderly patients placed first on the list. The surgeon should be fully trained. The technique employed should be meticulous, with careful haemostasis and gentle handling of tissues. Anal surgery in an awake patient requires considerable skill.

Case selection

Patients suitable for outpatient surgery should be selected according to the following criteria:
- Age under 60 years
- General medical disease (anaesthetic risk)
- Patient attitude
- Home support

Social circumstances:
- Access to hospital
- Magnitude of procedure

Hospital support: operative conditions, postoperative care, 24-h follow-up service.

The patient should have a positive attitude towards outpatient surgery, and the family must, if necessary, participate in the postoperative treatment. The social and family situation should be favourable. The patient should not live alone or in poor social conditions. A toilet and bathroom must be at his disposal. Adequate nutrition should be available. The nature and magnitude of the operation is also an important criterion. Patients should not live far from the hospital, or at least they should be able to return quickly to the hospital or office in case of complications such as bleeding. If these conditions cannot be fulfilled, hospitalization
should be arranged.

**Our experience**

We have been running an outpatient clinic for proctology since 1990. With increasing confidence and experience, more surgical procedures have been performed on an outpatient basis. From 2000 to 2007 a total of 2342 procedures have been carried out without any mortality (Fig. 1).

We have performed 2,342 proctological surgical procedures for the following anorectal conditions on outpatient basis from 2000 to 2008:

<table>
<thead>
<tr>
<th>Condition</th>
<th>No. of procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haemorrhoids</td>
<td></td>
</tr>
<tr>
<td>- Excision</td>
<td>399</td>
</tr>
<tr>
<td>- Infrered Photocoagulation</td>
<td>210</td>
</tr>
<tr>
<td>- Cryotherapy</td>
<td>69</td>
</tr>
<tr>
<td>- Sclerotherapy</td>
<td>962</td>
</tr>
<tr>
<td>Fisture</td>
<td>125</td>
</tr>
<tr>
<td>Pilonidal sinus</td>
<td>53</td>
</tr>
<tr>
<td>Perianal Abscess</td>
<td>105</td>
</tr>
<tr>
<td>Others (Skin lesion, Anal stenosis Warts, Adenoma, Polyps)</td>
<td>211</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2342</strong></td>
</tr>
</tbody>
</table>

It can be seen that the number of cases rose gradually every year. Average annual number of cases were 292.

Of the various surgical procedures 85% were performed under local anaesthesia and 15% using a perineal block. No patients were given spinal or general anaesthesia.

Complications that were observed in 3.5% of patients. Eighty four (3.5%) of our patients had post-operative complications. None of these were major than required hospital admission.

Of the minor complications, haemorrhage wound infection, perianal thrombosis and continence disturbances were the most common. All the patients returned to the hospital on the same day and were treated again as outpatients. The patients with perianal thrombosis were reassured and the thrombosis resolved on its own in two weeks. Patients with infection presented 2-3 days later and were treated with antibiotics. No case of urinary retention requiring catheterization was seen. No cases needed hospital admission after outpatient surgery.

<table>
<thead>
<tr>
<th>Complication</th>
<th>No. of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bleeding</td>
<td>29</td>
</tr>
<tr>
<td>Infection</td>
<td>38</td>
</tr>
<tr>
<td>Haematoma / thrombosis</td>
<td>17</td>
</tr>
</tbody>
</table>

**Conclusion**

Our experience during 8-year period has shown that outpatient proctological surgery is safe and has a low complication rate given careful case selection. Two-thirds of all proctological surgical procedures may be performed as ambulatory, using local anaesthesia or posterior perineal block.

Careful patient selection, meticulous surgery with minimal tissue damage, optimal wound care, appropriate postoperative...
analgesia and raising patient's confidence are the key to any successful proctological outpatient surgery. It has positive effects on planning of overall health care and improves cost effectiveness.

References


RISK OF ARTERIAL EVENTS FROM VENOUS THROMBOEMBOLISM

'Patients with venous thromboembolism have a substantially increased long-term risk of subsequent arterial cardiovascular events'

Venous thromboembolism is a serious disorder in Western countries. It is caused by clotting of red blood cells and fibrin, which obstruct the blood vessel and can consequently block the blood supply to vital organs. By contrast, arterial thromboembolism has long been viewed as a separate disease, with thrombi usually consisting of platelets, and causing cardiovascular events such as myocardial infarction and stroke.

Lancet, 2007; 1742, 1773.