JEFFERY & PARTNERS

TRAVELLING FELLOWSHIP

Once again this year two junior consultants training in the Department of Surgery at Groote Schuur Hospital, seen here with Prof Del Kahn, Aaron Ndhluni, Peter Jeffery and Bob Baigrie, were sponsored to visit recognised gastro-intestinal centres of excellence abroad.

Douglas Stupard, third from the right and Christos Apostolou next to him, visited Holland and Australia respectively.

Douglas who has contributed the article on colonic stenting in this edition, gained valuble insights into this modality of treatment. He also trained in the technique of small bowel endoscopy which he has introduced to the GIT clinic at GSH.

Christos visited the gastro-intestinal units at Perth, Adelaide and Sydney. On their return both presented highlights of their experiences to the department.

LAPAROSCOPIC ADRENALECTOMY

CURRENT STATUS

Eugene Paneiri

Adrenalectomy is usually performed for Cushing's syndrome, Conn's syndrome or phaeochromocytoma . The adrenals are small retroperitoneal organs particularly difficult to access. Open access requires a large incision and extensive mobilization to achieve adequate exposure. Thus the laparoscopic approach is ideal for adrenal pathology.

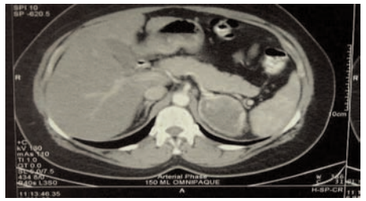
Since 1992, laparoscopic adrenalectomy (LA) has become widely used in the management of all adrenal pathologies. Obesity and previous surgery are not contraindications. Currently the the only absolute contraindication is malignant invasion into adjacent structures.

The patient is placed in a lateral position allowing retraction of the liver on the right, and the spleen on the left to expose the adrenal in the retroperitoneal space. Critical success is the correct identification of the IVC on the right, and renal and splenic veins on the left. Injury may result in uncontrollable bleeding necessitating conversion to open surgery.

On my surgical firm at Groote Schuur Hospital, Dr Baigrie and I have performed 22 laparoscopic adrenalectomies in 20 patients over the last 3 years. The indications were phaechromocytoma in 7, Cushing's syndrome in 6 (2 of whom required a bilateral procedures), Conn's syndrome in 6, 2 incidentalomata and 1 isolated metastasis. In the first 10 cases, we converted in 5, but in only 1 in the last 12.

The operation is challenging and has a steep learning curve, which is reflected in the operating times. The mean ooperating time was 189 minutes in the first 10 patients and 115 minutes in the next 7. After successful laparoscopic adrenalectomy patients had a median hospital stay of 2 days.

In summary, laparoscopic adrenalectomy is the new surgical gold standard for small and medium- size benign adrenal lesions. Available data demonstrates advantages for laparoscopic surgery in terms of recovery and morbidity. Our local experience is maturing, and we aim to match the results of the leading international units.



CT scan 10cm phaeochromocytoma

Drs Baigrie & Panieri with the 10 cm tumour

CASE REPORT OF A NSAIDS INDUCED BLEEDING ULCER

A 38 year old female patient presented with acute abdominal pain after passing a gallstone. She later underwent an uneventful laparoscopic cholecystectomy and was discharged on the first postoperative morning. She used a single daily brexecam tablet for analgesia for 7 days.

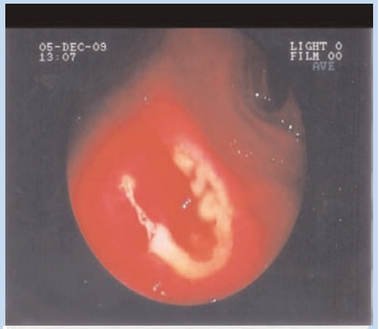
On about the 5th day she developed epigastric and left upper quadrant discomfort which became progressively worse. She re-presented after passing a black stool on day 10 postop. She was not shocked, but was tender in the epigastrium. Her hepatocellular enzymes were normal and her hemoglobin had dropped to 11.

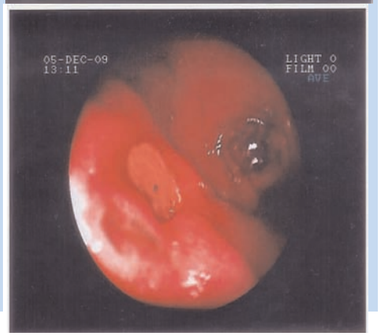
After fluid resuscitation, she underwent an emergency endoscopy, under conscious sedation, at which an acute bleeding duodenal ulcer was identified with a pulsing artery oozing at its centre. 10 mls of a 1:10 diluted solution of adrenalin was injected into the ulcer base and surrounds through a schlerotherapy needle until the bleeding ceased. This is a painful procedure and pethidine was administered concurrently.

She was admitted to the general ward and given 48 hours of IV Nexiam 8mg/hour and allowed to eat. There was no evidence of further bleeding and she discharged on oral Nexiam 40mg for 4 weeks, combined with Klacid 500 bd and Amoxil 1gram bd for seven days, to achieve helicobacter pylori eradication.

NSAID ulcer disease remains an unusual, but well described, complication from short term postoperative NSAID use. The combination of adrenalin schlerotherapy and 48 hours of IV PPI therapy have significantly reduced the re-bleed rate in peptic ulceration.

Professors Barry Marshall and Frank Warren received the 2005 Nobel prize for medicine for their discovery of the association of helicobacter pylori and gastric mucosal disease.





DR. JEFFERY AND PARTNERS

GI & LAPAROSCOPIC UPDATE

May 2006

EDITOR : BOB BAIGRIE

CONTRIBUTORS: RAVI OODIT, AARON NDHLUNI, EUGENE PANEIRI, DOUGLAS STUPART

LAPAROSCOPIC COLECTOMY

Laparoscopic colorectal surgery

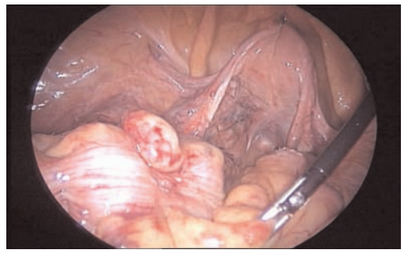


Fig 1 Pelvic view with rectosigmoid carcinoma

This surgery represents a new frontier in the application of laparoscopy to abdominal surgery. Colorectal cancer is common, and is usually best done by surgeons with an interest in colorectal surgery. It is widely advocated that low rectal cancers in particular, are only undertaken by specialist colorectal surgeons. However, few colorectal surgeons have laparoscopic experience, and they have been reluctant to embark upon laparoscopic surgery without

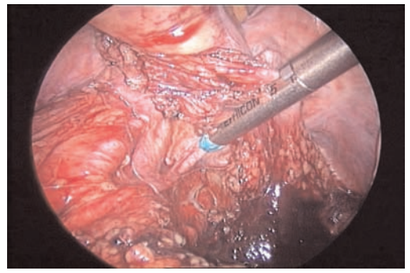


Fig 2 Staple gun placed across bowel

evidence that it is in the patient's best interests. Several large randomized controlled trials (RCTs) have now been published, comparing the short term outcome of open vs laparoscopic surgery. The results have been remarkably consistent.

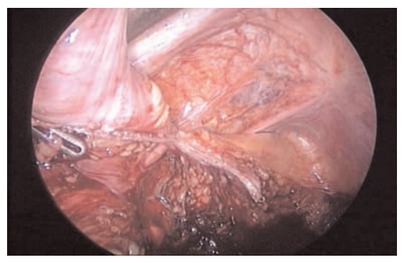


Fig 3 Divided rectum

The conversion rate to open surgery is 20-30% (compared with <5% for cholecystectomy), it takes longer and is more expensive. It benefits the patients by marginally decreasing the length of stay, analgesic requirements, wound infections and return to normal GI function. There is no difference in lymph node yield, tumour clearance, complications nor anastomotic leaks.

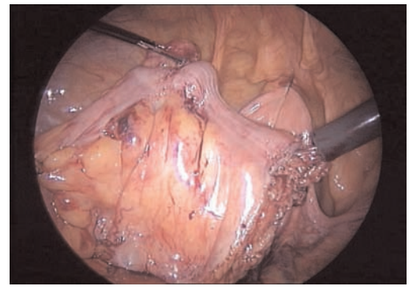


Fig 4 Tumour in rectosigmoid with distal divided rectum

Advantages
Slightly less pain
Better cosmetic result
Earlier return of GI function
Shorter length of stay

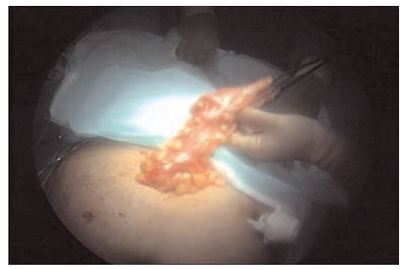


Fig 5 Resected bpwel being delivered through a small incision

Fewer wound problems

Disadvantages
Longer theatre time
Complex expensive equipment
Overall increased cost
Long learning curve

There is no difference in:
Anastomotic leaks
Complications
Number of lymph node resected
Extent of tumour clearance

Unknown
Long term oncological outcome

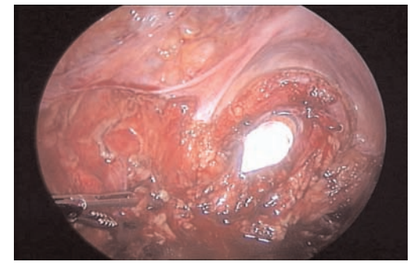


Fig 6 Staple gun inserted through the anus with the spike prottruding

Enthusiasm for new techniques may lead to:
Wide application before knowing real outcomes
New complications
Patients being unexpectedly hurt!

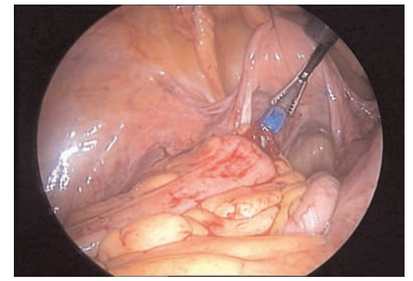


Fig 7 Completed procedure with a drain inserted

Recommendation
At present laparoscopic colorectal surgery does not offer very important benefits to the patient, unlike, for example, cholecystectomy or fundoplication for GORD.

Surgeons should therefore feel under no obligation to offer a laparoscopic option to patients with colorectal disease. In particular, the rectum should not be tackled laparoscopically, unless the surgeon has very extensive colorectal **and** laparoscopic skills.

There is evidence that laparoscopic rectal (as opposed to colonic) surgery may have a higher incidence of poor tumour clearance and other major complications. This probably reflects learning curve issues. On the other hand, colorectal surgeons with adequate laparoscopic experience and a respect for laparoscopic costs, should not feel inhibited in developing their skills in the quest for increased patient benefits.

Laparoscopic anti-reflux surgery Local published outcome

Laparoscopic anti-reflux surgery has proven to be one of the most popular laparoscopic procedures in general surgery. Published results are remarkably consistent, reporting a 90% cure of reflux at 10 years and a re-operation rate of about 5%. Serious morbidity is rare, though well described. Patient selection and surgeon experience remain the major determinants of outcome.

Since the open era, surgeons have tried various modifications of the wrap aimed at maximising the antireflux barrier while minimising post-operative dysphagia and wind related problems.

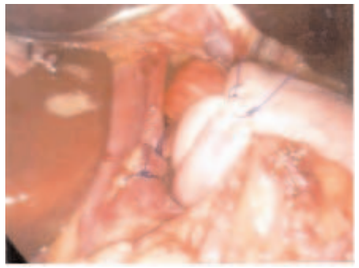
This study, undertaken by our practice, compares two year outcome for the "gold standard" 360 degree (total or Nissen) wrap with an 180 degree, anterior or partial wrap.

It demonstrates different advantages for each operation, while confirming the overall excellent results that laparoscopic anti-reflux surgery can achieve.

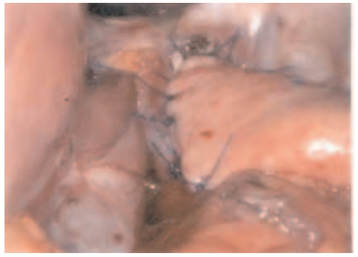
The study, which was undertaken at the Kingsbury and Vincent Pallotti hospitals, is the first original research on laparoscopic anti-reflux surgery published from South Africa, and the first randomised double blind trial in any area of gastrointestinal surgery published from this country in more than 20 years.

Performed in a private practice setting with no extra tests or costs incurred for the funders or patients, it has demonstarted that clinical research can be carried out in ththis environment and need not be confined solely to the academic departments.

All patients remain under annual review on a long term database aimed at reporting outcome beyond 10 years.

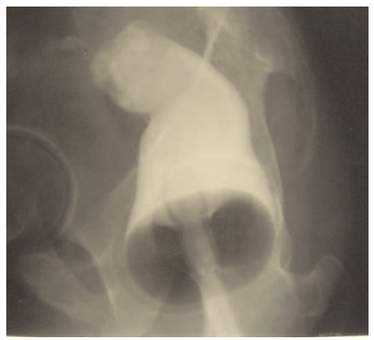


Nissen 360^{o} wrap



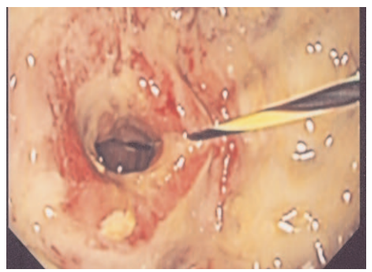
Nissen 180^{o} wrap

Stenting for obstructed large bowel cancer - Dr Douglas Stupart



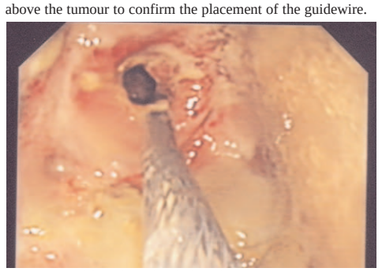
Barium enema showing the colo-rectal obstruction

The mangement of large bowel obstruction due to colon cancer is always challenging. These patients are often old, unwell, dehydrated, and commonly have metastatic disease. In addition, operating on a dilated colon is technically difficult, and many of these patients will require a colostomy, which may be permanent. High morbidity and mortality rates are common.



Introduction of a guide wire through the constricting lesion

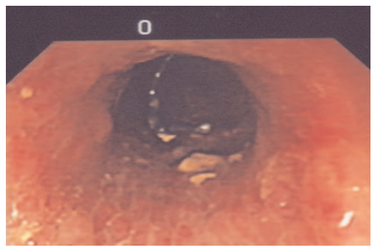
Colonic stenting is a new application to decompress the bowel in the emergency setting without surgery. Alone, it offers effective palliation in patients who have incurable disease. In patients with resectable cancers, easier and safer elective surgery follows, thus avoiding the need for colostomies in the majority of patients.
The procedure is performed under sedation. A colonoscope is introduced into the colon, and the tumour visualised. A small lumen in the centre of the obstructing lesion can usually be identified, and a guide-wire is passed through this under radiological screening. Contrast is then injected into the bowel above the tumour to confirm the placement of the guidewire.



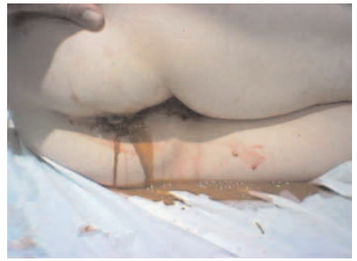
Introduction of the stent over the guide wire

A self expanding metal stent is then placed over the guidewire. Once deployed, it expands, creating a wide enough lumen for the passage of stool.

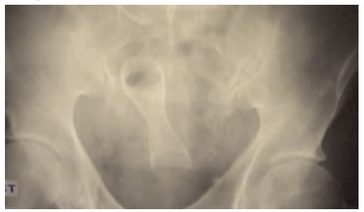
At Groote Schuur Hospital, we have placed 36 colonic stents for left sided colonic and rectal obstructing cancers, with an overall mortality of two patients, and only three of them requiring colostomies. This local experience is similar to most international series, where this procedure has been shown to be safe, effective and cost effective. We expect there to be increasing interest in colonic stenting in government and private practice as skills develop in this challenging technique.



Stent in place



Successful decopression

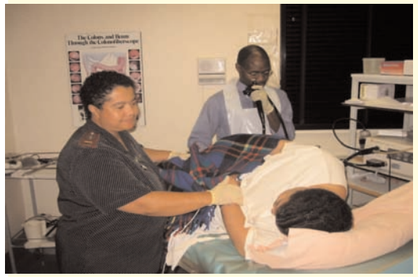


Xray of the deployed stent

Happiness after deploying the first stent at Kingsbury!!!

SOME OF THE TEAM AT JEFFERY AND PARTNERS

Sharon Waldeck is our Nursing Team leader and joined us in 1998. She qualified in 1982 at GSH and soon joined the GI Endoscopy unit. She was appointed manager of the Endoscopy unit at Netcare City Park and later commissioned their new endoscopy units at their N1 City and Wynberg Hospitals. Sharon is highly regarded amongst her nursing peers and in 2002 was awarded the SAGINS prize for her paper on colonoscopic comparisons in male and female patients.



Kathy Faull joined us in 2000. She qualified with Sharon in 1982 and worked at Vincent Palotti Hospital as a ward sister on the surgical ward. It was during her 14 years at this hospital that we recognised her commitment and excellence. For family reasons, she took a break from nursing hours and worked as the Clinical Nurse at Wynberg Pharmacy. When a Practice vacancy emerged, we snapped her up and have benefited from her common sense approach and commitment.

Amanda Van der Venter transferred to us from the endoscopy unit at Kingsbury Hospital where she had been for 4 years and felt in need of new challenge. She is from the Eastern Cape and, after completing her training in Uitenhage, moved to Cape Town in 1991. She worked for 8 years in Constantiaberg theatres before transferring to the new endoscopy unit at Kingsbury.

Carin Badenhorst After matriculating in 1983, she trained at Tygerberg, before joining the Mediclinic group. She worked for them in theatre and endoscopy for 17 years, completing a 1 year Advanced Nursing course through RAU and, later, achieved the highest mark in the Theatre Technique course. After 2 years as a PA and scrub sister for a private surgeon in Panorama, she joined us earlier this year.

We are proud of the standard and commitment of our nursing team.

Diverticular Disease

It is regarded as a "Western Society Disease" thought to be related to an over-refined, low fibre diet. The consistency of stools is such that high intraluminal pressures develop in the left colon which, over a period, force the mucosa through the muscle wall alongside perforating blood vessels forming the diverticula. It is rare before 30 years of age. 33% of the population over the age of 60 and 50% of those aged between 80 and 90 years have diverticulosis. Females are more often affected than males.

DEFINITION

Diverticulosis consists of small protrusions of the inner lining (mucosa) of the colon usually in the sigmoid, but can affect the whole colon. They appear as spherical "pockets" or "blowouts" on the surface of the bowel varying from 3-10 mm in size.

The increased pressure in the bowel may be associated with spasm. The circular muscle is thickened. Many of the diverticula contain a faecolith which may be retained indefinitely. This faecolith is probably the cause of inflammation.

The great majority have no symptoms. In those experiencing symptoms, such as pain or constipation, this may be due to spasm or chronic obstruction.
Diverticulitis (with or without an abscess) can vary in severity from a few days of being unwell with fever and constant pain in the left lower abdomen, to an emergency abdominal crisis requiring urgent operation. The disease may be insidiously progressive forming a chronic pelvic abscess, a stricture of the colon or a fistula, discharging infection and gas into the bladder or vagina.
Chronic bleeding is relatively uncommon in diverticulosis, but occasionally acute haemorrhage may require the patient to be admitted to hospital. Fortunately in most patients the bleeding stops without surgical intervention. Difficulty arises in deciding whether uncomplicated diverticulosis is the cause of symptoms. Similar symptoms can be caused by bowel spasm without diverticula.
Diverticular disease is not premalignant, but, as it is common, it often co-exists with colon cancer

It can readily be diagnosed by barium enema or colonoscopy. . In some patients, the distortion of the colon and clinical features means that barium enema can't exclude colon cancer and colonoscopy is required. In others, colonoscopy is not possible because of distortion and stricture and barium enema proves helpful. On occasions, the diagnosis remains in doubt after both investigations, and can only be made by resection. Even so, at laparotomy and resection, the distortion of the diseased colon may preclude diagnosis until histological analysis.

For patients with asymptomatic or mild disease a high fibre diet, with or without a stool softener laxative is usually sufficient. When an attack of inflammation occurs a short course of antibiotics and a bland diet will usually resolve the symptoms in a few days. A severe attack will need treatment in hospital. If emergency operation is necessary it will usually require resection of the affected part of the colon and a temporary colostomy may be necessary. Patients treated by elective surgery usually have the diseased area resected with primary anastomisis and no covering stoma. It is very rare for a patient to need a permanent colostomy, although the old and unfit patient may elect not to have colostomy reversal. Bowel function and general health return to normal after surgery and recurrence of symptomatic diverticular disease or complications is rare.

TAKE HOME MESSAGE

Diverticular disease is a common, benign disease.
It does not require antibiotics unless there are clear signs of inflammation.
If the diagnosis is suspected clinically, the clinician is obliged to comfirm it, and exclude a cancer.
Colonoscopy, sometimes supplemented by barium enema, is then required.
There may be a place for laparoscopic resection if surgery is indicated.

DOES MORBID OBESITY INCREASE THE RISK OF OESOPHAGEAL CANCER AND GORD?

The prevalence of gastro-oesophageal reflux disease (GORD) and oesophageal adenocarcinoma (OA) have increased dramatically in recent years. The reasons for this are unclear but it is possible that part of the explanation is the rise in obesity in Western populations.

Hampel et al have conducted a systematic review of observational studies to evaluate the association between obesity, GORD and oesophageal adenocarcinoma. They identified eight studies with reliable data on reflux symptoms and obesity and reported a strong statistical correlation for symptoms GORD and increased BMI >30 kg/m2. There were no eligible studies evaluating the association with Barrett's oesophagus and obesity.

Another six studies reported reliable data demonstrating an association between obesity and oesophageal adenocarcinoma for those with a BMI > 25 kg/m2 with a futher increased risk for those with a BMI > 30 kg/m2.

As with all epidemiological data, it is uncertain whether this association is causal. Obesity is, however, associated with a number of causes of increased morbidity and mortality.

This meta-analysis gives us one more reason why we should advise our obese patients to lose weight.

Ann Intern Med 2005