



HERNIA SURGERY IN THE ELDERLY

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The last decade has seen a major change in most countries in the way hernias are managed.

1. There has been a major shift in the surgical techniques, http://www.hernia.net.au/surgery_mesh.html
2. Surgery has become safer,
3. Anaesthetic techniques have advanced, http://www.hernia.net.au/surgery_anesthesia.html
4. The population is ageing in association with major medical advances particularly cardiac.

As a result more and more hernias are being diagnosed and treated in the elderly.

Changes have resulted in:

- a) Most patients can now be treated as a day case, <http://www.hernia.net.au/after.html>
- b) Elderly patients can now have surgery with predictably good outcomes. As the population ages more and more patients are presenting with their hernias in the 70's to 90's. http://www.hernia.net.au/hernia_op.html

In this article I will make some general observations about the techniques of hernia management and repair as they apply to my own practice.

I have always contended that surgery in the aged is best carried out under local anaesthetic infiltration with or without light sedation. Many practitioners are not aware of this technique, while others ignore the advantages. However, some of the best-known clinics worldwide have been using a Local Anaesthetic technique for many years. These include the **British Hernia Centre**, The **Shouldice Clinic** of Canada and the **Lichtenstein Clinic** in Los Angeles. They have reported low morbidity, low mortality and excellent results.

The advantages of the Local Anaesthetic technique are the reduced risks of complications associated with general anaesthesia and the lower patient morbidity.

The surgical repair is more physiologically attuned

- as the patient coughs or strains, the hernia can be delineated, repaired and tested under tension.

Specifically respiratory risks, acute retention of urine, and venous thromboembolism are just some of the problems which are minimised – this is especially so for the elderly. Early ambulation and mobility reduces these problems.

With the ageing process, there is often associated specific and non-specific neurological deterioration and degeneration. I believe that this is possibly accelerated by General Anaesthesia, or repeated General Anaesthetics, particularly in the elderly.

I coined the term “gas lag” to describe the short-term effects of the general anaesthetic, but I do believe there are long-term effects particularly in the aged. I compared the effects of the anaesthetic with those, which we describe as “jet lag”.

Post-operatively, following local anaesthesia, confusion, giddiness and falling are reduced. Mobilisation is more rapid.

The Local Anaesthetic lasts for 6 – 10 hours following the procedure and thus post-operative pain is minimal allowing rapid mobilisation, which in turn has beneficial effects.

HERNIA REPAIR IN THE ELDERLY:

Pre-operatively

To overcome the challenges of repairing the standard hernia, (inguinal hernia), in the elderly careful pre-operative monitoring is required. This ensures that co-morbidities are not overlooked and taken into account and corrected or allowed for as necessary.

Operatively - the surgical technique is not all that different in the elderly – but one does need to assess the difficulty of the hernia repair before making the decision to operate - e.g. is it recurrent, is it very large and irreducible, is the patient obese?

Post operatively

The care needs to be attuned to the patients' age and family circumstances.

PRE-OPERATIVE ASSESSMENT:

The initial interview is very important. The elderly patient needs to be able to address their symptoms to the Surgeon and decide whether the symptoms they are incurring are sufficient to warrant an operation. I prefer to have a family member present in the elderly – particularly as the elderly may be forgetful and the chaperone, or accompanying person, can help sort out many of the aftercare issues as well. For example a day case patient needs somebody at home that night. It cannot be an elderly wife who cannot cope. Many of the elderly patients want to get home because they have a spouse who they feel a responsibility for.

These days many elderly patients are on aspirin routinely. This needs to be stopped ten days pre-operatively to prevent operative and post-operative bleeding. It is re-commenced the day following surgery.

Those who have had cardiac problems such as valvular disease, or atrial fibrillation may be on anticoagulants such as warfarin.

A previous history of deep venous thrombosis and embolism should be noted and precautions taken to prevent repetition.

Increasingly patients are on anti-platelet medication such as Plavix. These medications may be part of the management of a previous stroke.

Thus, careful inquiry into cardiac conditions is required and appropriate management of these instituted. A cardiac consultation may be called for. I tend to routinely carry out a series of blood tests and an ECG in the elderly over 70 – 75. One of the systems which may be affected in the elderly are the neurological, and here informed consent is important, as the elderly patient does need to understand that there are risks. Interestingly enough in my practice I have not had a substantially increased risk problem in the elderly. I do believe a local anaesthetic technique plays a role in this.

It is important to exclude bowel pathology, such as cancer, as bowel cancer in the elderly is so common that it can co-exist with the hernia or even be a cause of the hernia. A history of bleeding demands further investigation before surgery. Bowel disturbance can actually be due to the

hernia and can be difficult to evaluate. A routine pre-operative haemoglobin may often be the first indication of a silent bowel tumour. Abdominal examination is mandatory. Rectal examination and sigmoidoscopy should be practised, particularly in the elderly as a coincidental carcinoma may be detected.

RESPIRATORY:

At surgery under Local Anaesthetic the patient is lying flat on their back in the supine position. Shortness of breath can be a problem here and the head of the operating table may need to be elevated to cope with this. I always enquire about the exercise tolerance and respiratory tolerance of the patient and make adjustments or allowances.

Thus careful enquiry prior to the procedure regarding risk factors is helpful in overcoming oversights, which could be disastrous – for example excessive bleeding. Reducing complications of the surgery itself ensure a rapid recovery for the patient and a return to their normal environment.

We have found that the elderly patients co-operate during the procedure and have not found this to be a problem e.g. dementia etc. An expert Anaesthetist will help with the appropriate amount of sedation. Our anaesthetic and surgical techniques are described on our website in detail from the following link: You may be interested to know that mesh reinforcement is increasingly used, providing earlier return to normal activity and decreased recurrence rates,

Antibiotic cover is not routinely administered. However for patients with a cardiac valve or other prosthesis where there is a risk of endocarditis, an appropriate antibiotic appropriate cover is given intravenously at the commencement of surgery. An intravenous line is inserted in all patient but minimal amounts of fluids are used because the patients are able to take fluids immediately post operatively. Overloading with fluids should be avoided in the elderly. Vomiting is rare using these techniques.

Because the patient is able to move about and wiggle their toes during the procedure, anticoagulation is not routinely administered. Subcutaneous Heparin or low molecular weight Heparin such as Clexane can be used in higher risk patients. .

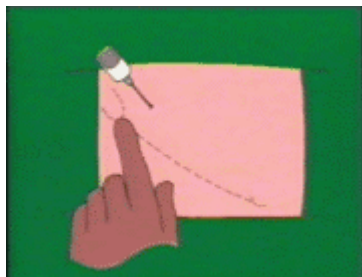
For those patients who have been on warfarin our usual routine is to stop the Warfarin for four days prior to the procedure. We replace the Warfarin with Clexane two days prior to the procedure, but it is not given on the day of the procedure. The Warfarin can be restarted on the evening of the procedure and then the Clexane is continued for two post-operative days. The I.N.R., which measures the level of anticoagulation, is monitored.

SURGICAL TECHNIQUE:

In some centres where laparoscopic surgery is carried out routinely, laparoscopic surgery is carried out on the elderly also routinely. I am not in favour of this, as I believe there is the increased risk of the General Anaesthetic in the elderly.

The surgical technique should be precise and gentle as for all surgery. In the elderly the tissues are often lax and easily moved about so that often a smaller incision can be made.

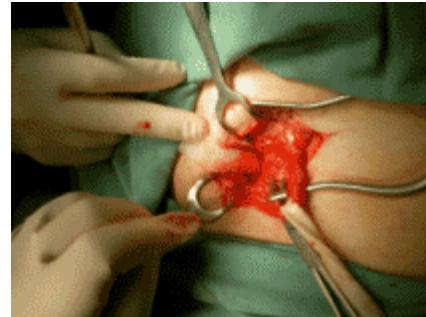
In the post-operative period the Local Anaesthetic technique means there is less post-operative confusion. As mentioned I believe that the elderly patients recovers with less pain and does not need as many pain killers as the younger patient.



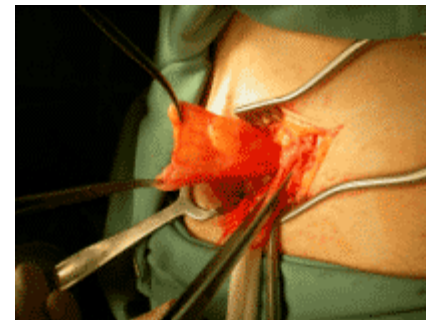
Local anaesthetic nerve block of ilio-inguinal nerve.

Many elderly patients can be treated as a day case, although I do tend to err in the side of keeping the patients in for one night.

There is an increased incidence of diabetes in the elderly and this needs to be monitored. There are many patients who are not on Insulin but just on the oral medication and this is usually fairly simple to manage. If there are any doubts we usually consult with Diabetic specialists or Physicians.



Mesh plug being used to fill the defect in the muscle after the hernia has been reduced.



The sac of a reduced hernia

CONCLUSION:

Thus, the hernia repair in the elderly does present a challenge, usually because there is a high incidence of co-associated morbidities, which do need to be managed. Because of the risks associated with these, a decision to operate is sometimes not easy. It should be carefully weighed after discussion with the patient and relatives. They should be aware of the risks of the surgery. These days informed consent is mandatory – both medical and financial.

There may be many other Physicians associated with the management of these patients. I do usually try to be in touch with these Physicians for their assessment of the patient's status. I do try to have these people involved in the adjustments of the medication, and to be aware when the patient is to have the surgery should they need to be called in.

Over the years I have found treating the elderly a pleasure. There is the increased demand in managing the associated problems, but I find that the elderly are grateful and do not complain of pain to the same degree. Fortunately I have not found them to have a high incidence of complications.

When one looks at the patient's previous history, one could be deterred by the previous histories of infarcts, strokes etc. However, when the patient is stable I have not found that these problems raise their head again. For example, under Local Anaesthetic, I have not found patients having infarcts, strokes etc to be at all a problem.

I have noted that the elderly patient wants to stay mobile and to deal with matters promptly when they arise. For example the elderly patients often say – doctor fix my hernia it is starting to trouble me and I don't want my lifestyle to be interfered with. The elderly patient has often been through life's difficulties. While some patients have trouble making up their mind, most elderly patients are firm and decisive about what they want done.

Surgery repair for hernia in the elderly need not necessarily be feared, as it can usually be carried out under Local Anaesthetic, as a day case or an overnight stay with minimal problems. In fact some elderly patients recover much quicker from a hernia operation than their younger counterparts.

Further reading:

http://www.hernia.net.au/educ_main.html - preface

