Groin hernia repairs: what do patients want?

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INTRODUCTION

The modern hernia surgeon has experience with both open and minimally invasive techniques to repair an inguinal or femoral hernia. Both patient and disease factors may favour one approach over the other; and it is the surgeon who ought to advise on the most appropriate repair strategy. The decision is made by the patient after making an informed choice.

Surgeons perceive risk and benefits different to the layperson. This phenomenon is now exclusive to surgery but across all craft groups. Since the patient ultimately decides on their chosen intervention, subject to no clear contra indications, it is prudent to understand the discordant perception of risk between the surgeon and the patient. Salient factors in obtaining consent should mitigate some but not all disagreements.

The two main operative repairs offered at our institution are open inguinal hernia tension free repair or laparoscopic totally extra-peritoneal repair (TEP).

An open tension free repair is the gold standard and has been performed over over half a century. It is cheap, reliably reproducible, associated with a low recurrence rate and can be performed under local anaesthetic, spinal anaesthetic or general anaesthesia. The laparoscopic TEP repair is more expensive, technically demanding and a similar recurrence profile. It also allows for earlier return to work and reduced pain scores. The laparoscopic TEP repair is however associated with more severe complications, albeit rare.

The laparoscopic TEP repair has relative contra indications, such as any process which may be disrupted the pre peritoneal plane (eg, TURP, ileal conduit), cardiopulmonary prohibitive factors that make general anaesthesia hazardous, or recurrence from previous similar approach. The open approach is considered safe, and especially indicated in an obstructed hernia which may need visceral inspection and or resection.

Open	Laparoscopic
Advantages	
Easy to learn	Less postoperative discomfort
Minimal risk of major complications	Quicker return to normal activities
Good results obtainable by 'non-experts'	Diagnose occult contralateral hernia
Ideal for day surgery, especially under LA	Indicated for recurrent and bilateral hernia
Suitable for almost all inguinal hernias	
Disadvantages	
More postoperative discomfort than laparoscopic repair	Requires GA
More long-term discomfort than laparoscopic repair	Not suitable for elderly or if co-morbidity
Longer to return to normal activities	Not suitable if previous abdominal surgery
	Long or steep learning curve
	Needs high level of technical expertise for good results
	Potential for serious bowel, bladder or vascular injury
	Greater costs than open repair
	? future surgery if pre-peritoneal mesh

Table 3 *Advantages and disadvantages of open versus laparoscopic repair*

METHODS

Ninety seven patients participated in this study with the majority being male (64 males, 32 females). The median age was 56 (22-84). All participants were recruited from clinic and had no relative contra indications to either repair. Exclusion criteria was any significant cardiorespiratory disease, contra indications to laparoscopy and non primary inguinal hernia.

Pre operative diagnosis was inguinal hernia for all males, and 5 femoral hernias for females with the remainder being inguinal hernias. All participants had a unilateral hernia indicated for repair. All participants were provided with a Decision-Aid booklet that listed in the procedure and risks in addition to the consent process at the time of operation booking.

All participants were required to complete a questionnaire 'Evaluation of Risk Scale', self reported inventory for assessing risk-taking propensity in medical decision making. Specifically, perceived risk of the complications and whether that changes their operation choice.

RESULTS

Data analysis factoring for employment and home responsibilities were compared. Four males were excluded from analysis due to contraindication.

Younger working males preferred laparoscopic repair despite indicating they viewed the risks (bladder injury, visceral injury and vascular injury) are serious enough to alter their decision. Younger males indicated the gain of earlier ambulation/return to function and the aesthetics of laparoscopy as the main drivers for this decision.

Older males indicated that post operative pain and urinary retention was a main concern and this was a prime driver for their decision. They preferred laparoscopic approach. Older males did not rate bladder, visceral or vascular injury as serious.

Only three females were under 40 years of age. Females preferred an open approach, felt that a groin incision could be concealed in the bikini line and was more aesthetically pleasing than a laparoscopy port scars. The risks of open were considered less severe and the single groin incision was acceptable.

Older females were ambivalent about the choice. All women identified the following variables as serious:

- Bleeding
- Bladder, visceral and vascular injury
- Nerve impingement
- Cardiopulmonary complications (VTE, PE, MI).

Females tended to have a more cautious approach; and any factor which increased risk (such as anti-platelets or anti-coagulation) was considered significant enough to revert to an open procedure.

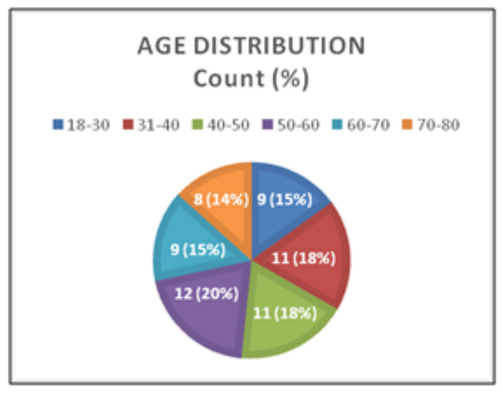

Figure 1. Age distribution among males only.

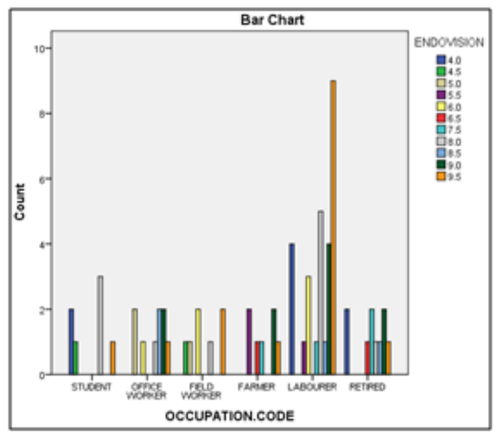

Figure 2. Occupational distribution all sexes.

CONCLUSIONS

A groin hernia operation is one of the most commonly performed elective procedures in Australia. Patients have options with the procedure with either being a classical open repair or minimally invasive laparoscopic TEP repair. The hernia recurrence and safety profile is similar for both approaches. The laparoscopic approach however can portend more serious complications that contributes to significant morbidity.

Complications and morbidity is a construct developed by providers that categorises unexpected and undesired events from the intervention. The surgeon ascribes the seriousness of the complication based on anatomic, pathologic, squealae and the effect on quality of life. The patient is assumed to have the same values as the surgeon.

It is well known that health providers and patients values and understanding of risks are incongruent. Furthermore, the numerical value of risk is a subjectively appreciated phenomena.

This study has highlighted that patient groups perceive risk differently; and some are prepared to engage that risk nonetheless. Males bio-culturally take more risk and seek immediate reward, which may account for the acceptance of the laparoscopic TEP approach and its potential serious complications. Females perceive the risks and morbidity as sufficiently unacceptable, despite the benefits of earlier ambulation, return to work and small incisions. Females also perceive pain differently to males as pain was not considered an important variable. This may also be explained by gender based biology and pain thresholds.

Patients appears to make informed choices about their procedural choices for a groin hernia repair using the information provided to them and applied to their own values.

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