

Laparoscopic Trans Abdominal Pre Peritoneal (TAPP) Inguinal hernioplasty

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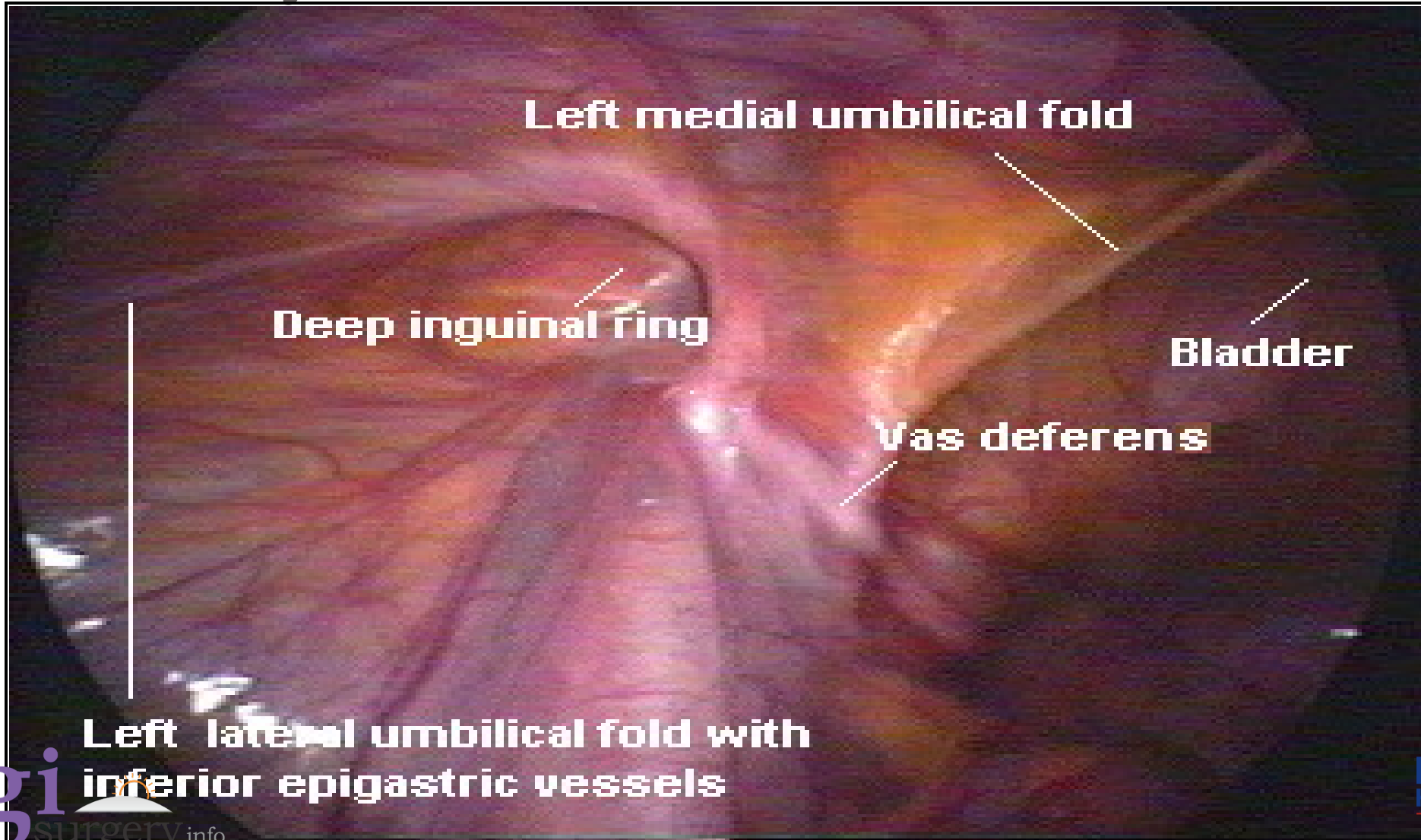
Institute of gastroenterology & research centre

Ahmedabad

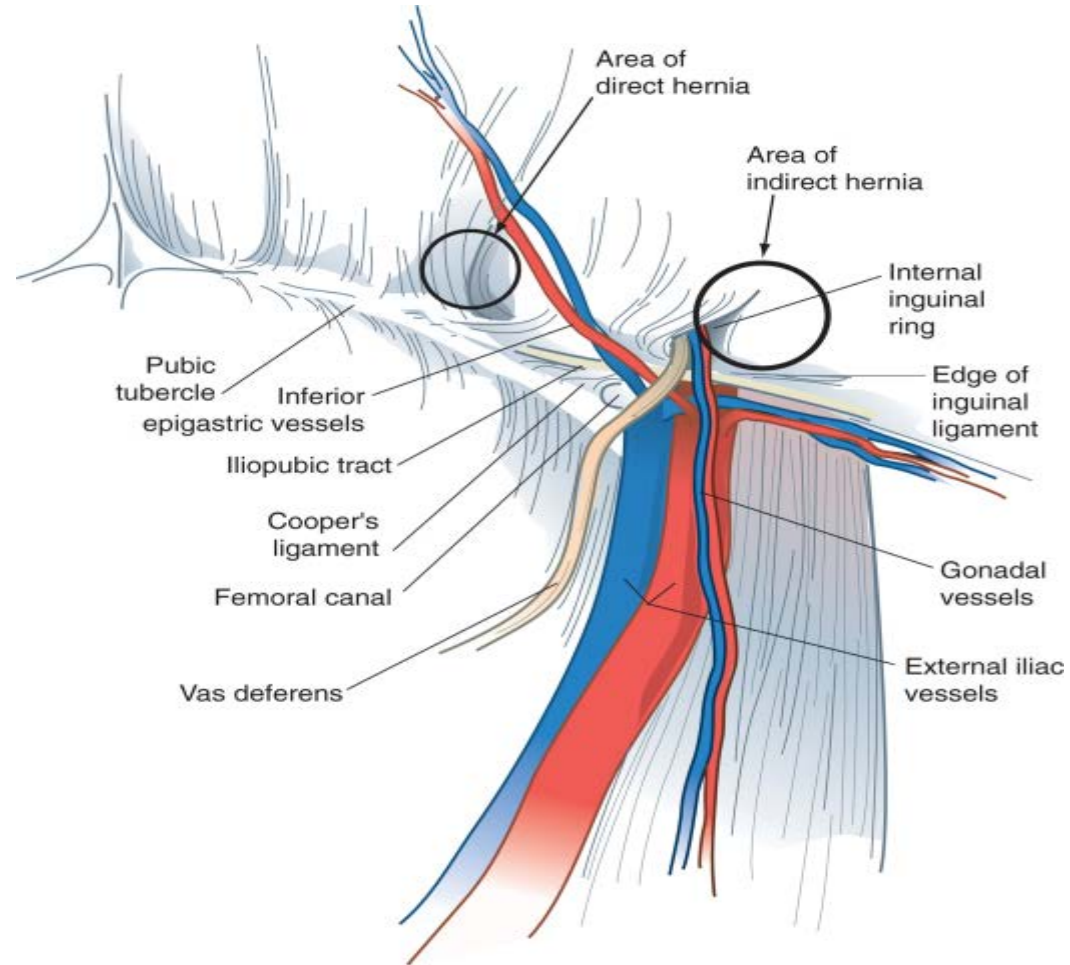
Transabdominal Preperitoneal Herniorrhaphy (TAPP)

- First reported 1991
- The Trans-abdominal pre peritoneal(TAPP) procedure was introduced by Arregui in 1992
- Dissection of entire inguinal floor with repair of direct, indirect & femoral hernia without tension

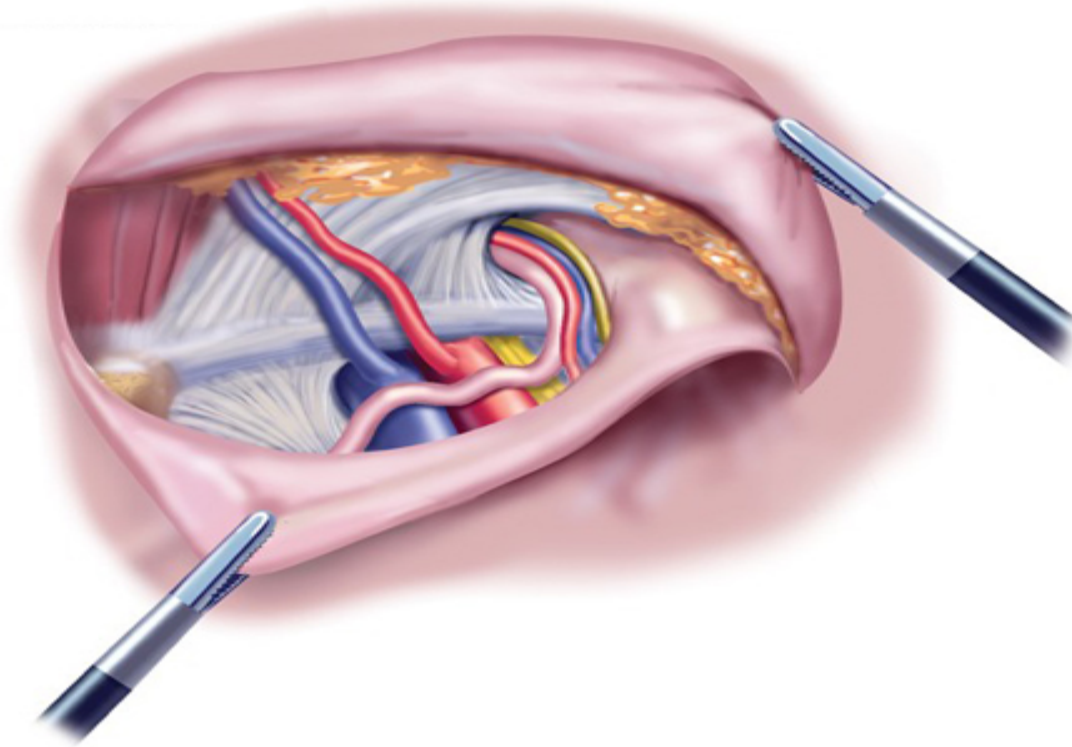
Anatomy



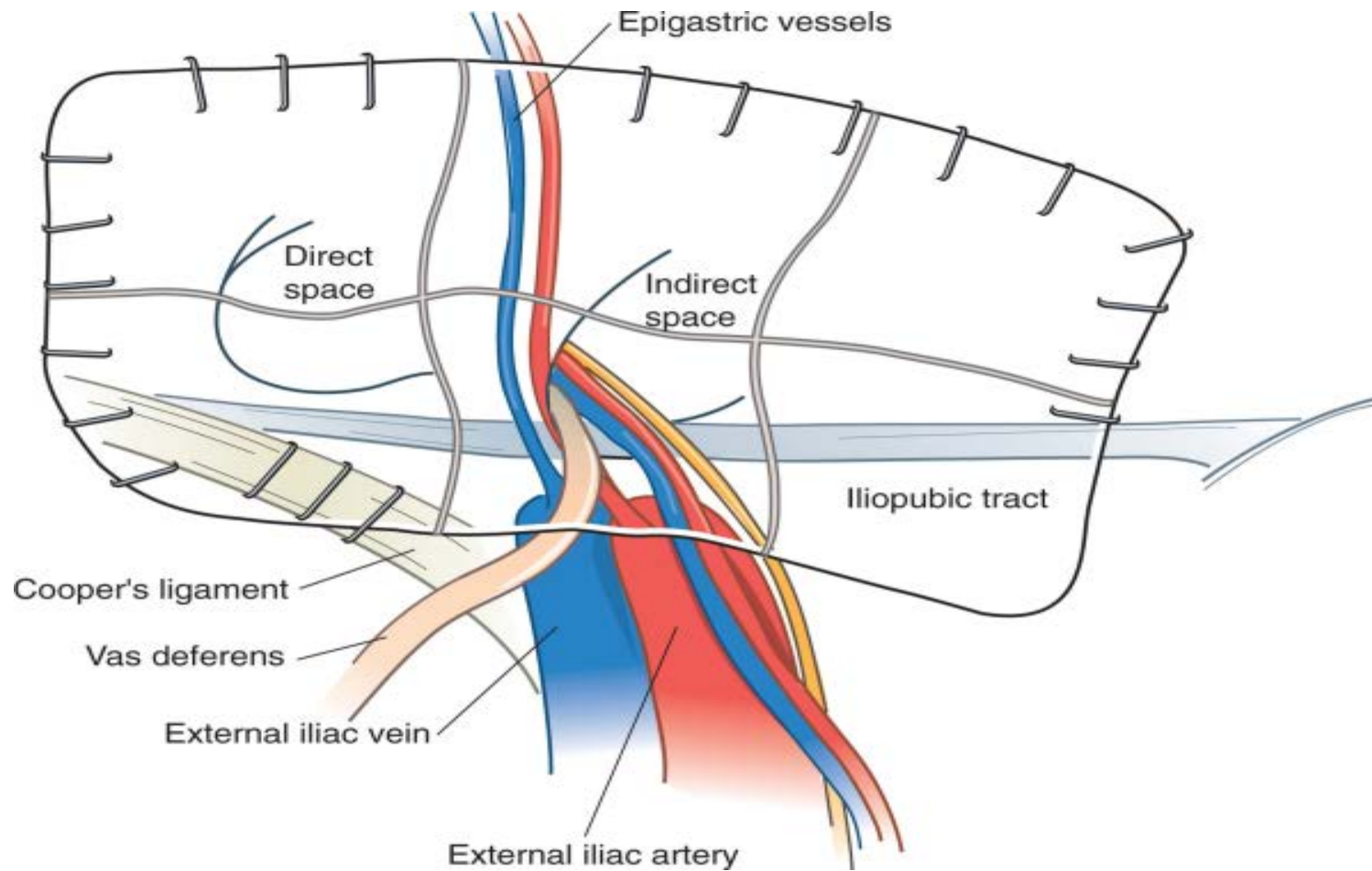
Anatomy Relevant to Laparoscopic Inguinal Repair



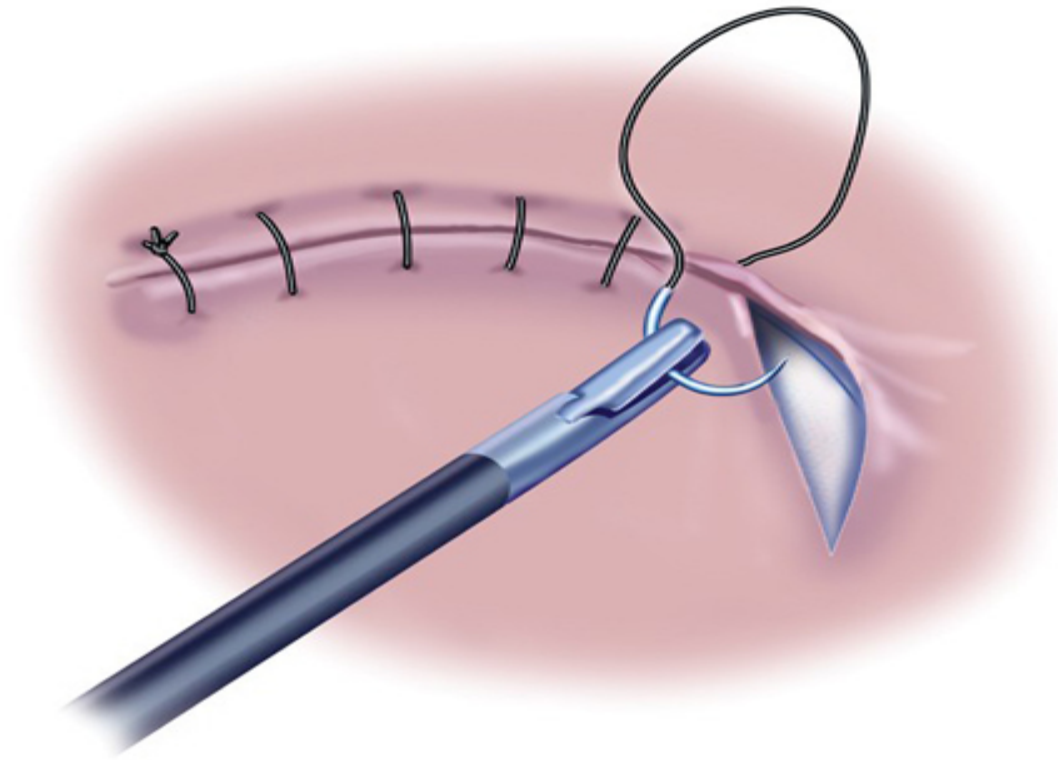
Peritoneal Flaps



Placing and Fastening the Mesh



Closing the Peritoneum



Preference for TAPP

- Initial laparoscopy (before dissection) displays the full anatomy and pathology on both sides.
- Orientation is much easier.
- There is a much larger working space.
- It is much easier for beginners – indeed, many people who have been encouraged to start with TEP give up trying.

Step towards TAPP

- Closure of peritoneum required
- Easier to learn
- Risk of bowel injury

Early Results

- 600 repairs in 493 patients, 1991-1994
 - ½ TAPP, ½ TEPP, single institution
 - Recurrence rate 1.2%
 - Overall complication rate 2.0%
 - 3 bowel injuries, 2 bladder injuries, 1 SBO (port)
- Ramshaw, et al.
Surg Endosc, 1996

Laparoscopic Inguinal hernia repair

- No statistically significant differences TEP vs TAPP
- There is insufficient data to allow conclusions to be drawn about the relative effectiveness of TEP compared with TAPP. Efforts should be made to start and complete adequately-powered randomised controlled trials (RCTs), which compare the different methods of laparoscopic repair*.

*Transabdominal pre-peritoneal (TAPP) versus totally extraperitoneal (TEP) laparoscopic techniques for inguinal hernia repair: a systematic review .
Hernia. 2005 May;9(2):109-14. Epub 2005 Feb 10

*Transabdominal pre-peritoneal (TAPP) vs totally extraperitoneal (TEP) laparoscopic techniques for inguinal hernia repair , Cochrane Database Syst Rev.
2005 Jan 25;(1):CD004703

By all criteria of success – recurrence, recovery,
Long term symptoms and economics –
laparoscopic inguinal hernia repair is equivalent

So why is it not done much more widely ?

Many surgeons see the immediate
problems of a new learning curve
in their otherwise-established career.

Training and mentoring can help

Starting with TAPP is a wiser move.
The technique can be changed later,
if desired

Laparoscopic Hernia surgeon

operation time

- Laparoscopic surgery was associated with a statistically significant increase in operation time compared with open methods of hernia repair.
- Metaanalysis of 16 RCTs of TAPP repair demonstrated an overall increase of 13.33 minutes (95% CI 12.08 to 14.57) compared with open repair.
- Metaanalysis of eight RCTs of TEP repair demonstrated an overall increase of 7.89 minutes (95% CI 6.22 to 9.57) compared with open repair.

Persistent numbness

- Both TAPP and TEP procedures demonstrated a statistically significant reduction in persistent numbness compared with open repair

Recurrence

- The rates of recurrence were similar for laparoscopic and open repair.

Wound related infection and haematoma.

- Laparoscopic repair (both TAPP and TEP) was associated with fewer cases of wound related infection and haematoma
- However, TAPP repair was associated with a higher incidence of vascular and visceral injuries compared with open repair

(0.13% vascular injuries with TAPP compared with 0% with TEP and open repair; 0.79% visceral injuries with TAPP compared with 0.16% with TEP and 0.14% with open repair).

THANK YOU