

adhesions and cause recurrence[Fig. 5].

- The peritoneum should be well reflected proximally from cord structures and complete parietalization should be done[Fig. 6&7].
- Indirect sac should be transected in case of complete inguinal hernia and occluded using endloop or free suture tie, to avoid pneumoperitoneum.
- No dissection should be done in triangle of doom[Fig. 8]. Lateral limit of dissection is anterior superior iliac spine and psoas muscle, avoiding injury to cutaneous nerves (genitofemoral N., Latreal cutaneous N. of thigh) [Fig. 9].
- The minimum size of mesh to avoid recurrence is 15 cm x 12 cm.
- To handle a mesh of this size in restricted preperitoneal space is not easy. Thus we have developed a technique of introducing a rolled mesh in this space for easy handling and accurate fixation. The mesh is rolled like a carpet to 2/3 of its length leaving five cm free and stay sutures are tied using absorbable sutures 3 cm away from margins to keep the rolled mesh in position[Fig. 10]. The rolled mesh is introduced through 10-mm subumbilical port and free margin of mesh is pushed into retropubic space medially and psoas muscle laterally.
- A two-point fixation at cooper's ligament should be done to prevent migration. In case of large deep inguinal ring, lateral fixation should be done above iliopubic tract[Fig. 11].
- After cutting the stay sutures mesh is unrolled to lie within the preperitoneal space and none of the edges of the mesh should be partially rolled at the time of exsufflation as this may lead to further rolling and the likelihood of future recurrence of hernia.

**Post-operative Bulge may be seroma or haematoma –  
WAIT AND WATCH**

## CONCLUSION

In the current analysis of 23 trials comparing TEP repair with open mesh and sutured repairs, only one trial<sup>9</sup> reported a significant difference in the number of recurrences<sup>10</sup>. Among 994 patients undergoing inguinal hernia repair, a lower recurrence rate after TEP than after open hernia surgery using various techniques was observed. None of the other trials showed any significant differences in the recurrence rates.

We began endoscopic TEP repairs for groin hernias in year 1994. Till 2006 we have performed 4063 repairs with 12 recurrences reported on follow-up of 12 years. During this period we had a follow up of 82% with mean follow up period of 2.6 years.

The observations and recommendations made in this article are following our experience of more than 4000 cases over a decade.

**Adequate dissection, complete coverage of myopectineal orifice and proper fixation -  
MUST FOR ENDOSCOPIC INGUINAL HERNIA REPAIR**

## REFERENCES

1. Schultz L, Graber J, Pietrapitta J et al. Laser Laparoscopic herniorrhaphy : A clinical trail : Preliminary results. *J Laparosc Surg* 1990;1(1):41-45.
2. Liebl B J, Schmedt C, Kraft K, Ulrich M, Bittner R. Recurrence after endoscopic transperitoneal hernia repair (TAPP) : causes, reparative techniques and results of reoperations. *J Am Coll Surg* 2000; 190: 651 – 655.
3. Lowan AS, Filipi CJ, Fitzgibbons JR, Stoppa R, Wantz GE, Felix EL, Crafton WB. Mechanisms of hernia recurrence after preperitoneal mesh repair, traditional and laparoscopic. *Ann Surg* 1997; 225: 422-431.
4. Felix E. 10 year experience with laparoscopic hernioplasty. Presented 9<sup>th</sup> world congress of Endoscopy, Cancun Mexico, February 2003.
5. Phillips EH, Rosenthal R, Fallas M, Carroll B, Arregui M, Corbitt J, Fitz gibbons E, Sides A, Schultz L, Toy F et al. Reasons for early recurrence following lap. Hernioplasty *Surg. Endosc.* 1995; Feb: 9(2): 140 -144.
6. T Wright D, O' Dwyer P (1998) the learning curve for laparoscopic hernia repair. *Semi laparosc Surg.* 54:227-232.
7. Felix E, Scott S, Crafton B, Geis P, Duncan T, Swell R, Mckernan B. Causes of recurrence after laparoscopic hernioplasty. *Surg Endosc* 1998;12:226-231.
8. Schwab J, Beaird D, Ramshaw B, Franklin J, Duncan T, Wilson R, Miller J, Mason E. After 10 years and 1903 inguinal hernias, what is outcome for laparoscopic repair? *Surg Endosc* 2002; 168; 1201 –1206.
9. E Kuhry, R N Van Veen, H R Langereld, E W Steyerberg, J Jeekel, H J Bonjer. Open or Endoscopic TEP inguinal hernia repair? A systematic review. *Surg Endosc* 2007;21:161-166.
10. Liem MSL, Van Duen EB, Van der Graef Y, Van Vroonhoven TJ. Recurrences after conventional anterior and laparoscopic inguinal hernia repair; a randomized comparison. *Ann Surg* 2003;237:136-141.

## Conference News

**13<sup>th</sup> ANNUAL INTERNATIONAL CONFERENCE of INDIAN ACADEMY OF ECHOCARDIOGRAPHY** will be on **February 8 -10 , 2008 at Ashoka Hotel, New Delhi (India)**

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Stress on clinical echocardiography with emphasis on role in management issues; Lectures to cater to all levels of echocardiographers & cardiologists; Meet the expert sessions with active interaction with faculty; Interesting live workshops; Daily sessions on interesting case studies; Young Investigator award session; Orations of general interest for participants; **Natesa G Pandian Gold Medal For Best Case Presenter:** (a) The award is applicable to members of IAE (b) age of the presenter must be below 45 years (c) presentation time will be 8 mins (d) the relevant CD containing brief history, relevant investigations, well edited echo images and final diagnosis must be sent to HQ, IAE by 30 November, 2007. (e) 10 best cases will be selected and the presenters will be informed by 31<sup>st</sup> December, 2007; Free paper sessions will be encouraged; An excellent scientific program of practical importance will be presented;

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