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BHATIA GLOBAL HOSPITAL & ENDOSURGERY INSTITUTE NEWSLETTER

VOL: 10 NO: 1

PRICE: Rs. 4/- PER COPY

JANUARY, 2010

An Appointment with Death!!

DEATH: Who isn't afraid of death? Most of the people in our society and in our culture are afraid of death. We are scared to die! I remember the times when I was growing up, my elders use to stop us from talking about death. They were superstitious as they regarded death as a bad omen or inauspicious topic to talk about. The word of death was not to be treated or taken lightly. They felt death was a serious issue.

We know about the doctrine of God, doctrine of various religions, doctrine of salvation, works and faith and there is a doctrine of death too.

Well, to tell you the truth, death is inevitable. It is not morbid to accept the fact that all die. No doctor can save you from death itself. They can surely prolong your life but nothing more than that. The death rate is the same the world over – one death per person. And there is no breaking of this appointment.

Death is inexplicable. It has always been a mystery. There are some things we can't understand about it and therefore can't explain it. To accept this fact is to be on our way to comfort. Every religion has their own doctrine about what happens after death. For some death is intermediate. Death is not an end, it is just the entrance to heaven. For some it is to be reborn and yet for some it is to go to paradise and so on. Death is not a destiny, it is a door.

About 3000 years back when the Pharaoh's of Egypt died, they were mummified and buried with all their treasures and also with their day to day things that they needed as

they believed that they would need all these things in the next world. But many centuries down the line, man realized that he cannot take any of his wealth that he has acquired during his lifetime with him.

Here I would like to relate the story of Alexander the Great who conquered almost all the world in his time. Before dying he ordered his subordinates to fulfil his last 3 wishes. Firstly, he wanted that the physicians should carry his coffin. Secondly, the road from where his body will be taken should be covered with gold, silver and precious stones and thirdly, he asked them to let his arms and hands hang out of the coffin. They were surprised to hear such a strange request and wanted to know what he meant. Well, he told them that he wanted the physicians to carry the coffin which meant that even they can't help anyone to escape death. This is very true. Secondly, though he had conquered many nations yet he could not take even a scratch of gold with him to the next world. Thirdly, he wanted his arms to hang out of the coffin so that people would know that he came into this world with nothing and he was going with nothing in his hands.

But in today's world the people are simply running after money. Marriage and bearing children and other things are being kept on hold now-a-days so that the youngsters can make as much money as they want. Therefore when someone dies, one is not ready for it, none of their family members are ready to accept the truth. It is tragic. People accumulate so much of wealth for what! Man is usually not satisfied with

what he has, he always longs for more. His desires are never fulfilled. Though everyone knows the fact that empty handed we come and empty handed we go when we die. Yet everything one does is towards making more money and hoarding it for the future.

Thus it is better to be satisfied with what we have. If we have a roof over our heads, clothes to wear and food to eat, I think that is sufficient. Simple living and high thinking should be our motto. Thank God always for what we have. He is the provider. What we are today is because of Him. Help others who are needy. It will help you to be happy and humble.

Rev. Charles Golla

*Wishing you
a blessed New Year*

2010

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Only those who will risk going too far, can possibly find out how far one can go. - T.S. Eliot

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Cost effective Laparoscopic Incisional Hernia Repair with Transfascial Sutures:- "Eight Suture Fixation" Technique

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With the advances in the technology of minimally invasive surgery in the 1990s, laparoscopic repair of incisional hernia (LIHR) has been gaining popularity. In the laparoscopic mesh repair of incisional hernias, the mesh is usually fixed by tackers, staples or sutures. We describe a new method for securing the composite mesh in a LIHR that is intended to reduce postoperative pain resulting partly from transfascial suture, and does not require the use of spiral tackers.



Large Incisional Hernia

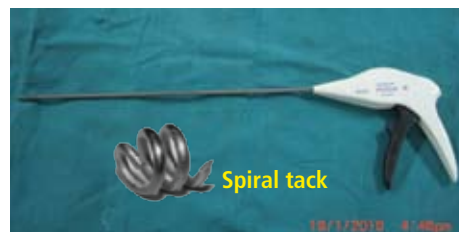


Swiss cheese multiple defects

Fixation of the prosthesis is the most critical component of LIHR. The fixation of mesh in the laparoscopic repair of incisional hernia with tackers is a fairly standard technique among laparoscopic surgeons. The majority of surgeons use the tackers or dual method of tackers and sutures for fixing the mesh.

The recent studies have proven that tacker fixation alone is not reliable.

Depending on the thickness of the mesh and the abdominal wall (with varying degrees of preperitoneal fat) there may be inadequate hold on the fascia by the tackers, giving rise to recurrences. The inadequate fixation also promotes shrinkage of the mesh. Better fixation is achieved by closely placed sutures rather than the spiral tackers. As proven in several studies, the suture fixation of the mesh is an integral part of the repair. The tensile strength of sutures is up to 2.5 times greater than the tensile strength of tackers. There are also rare reports of tacker site hernia, lacerations, adhesions and tacker site perforation of intestine. In our technique, we have used 'sutures only' for fixing the mesh. We have not encountered any of these complications with the sutures using our technique.



Protack 5mm (Auto suture@) with Spiral tack

Benefits of LIHR

1. Diminished postoperative pain
2. Reduced risk of wound complications
3. Faster recovery
4. Rapid return to normal activity
5. Detection of Swiss Cheese multiple defects
6. Clear delineation of extent of anatomical defect
7. Posterior repair of hernia possible

TECHNIQUE

In general, the procedure for LIHR consists of four steps:

1. Appropriate port placement,
2. Adhesiolysis,
3. Intraperitoneal measurement of the hernia size, and
4. Anchoring of the mesh.

After induction of anaesthesia, the reduction of sac contents should be tried before scrubbing. The first trocar should be placed away from scars and sites of previous surgery to prevent intraoperative bowel injury as well as to enable easy access to adhesiolysis. Choice of entry is usually Palmer's point (2cm below the left subcostal margin in the midclavicular line).

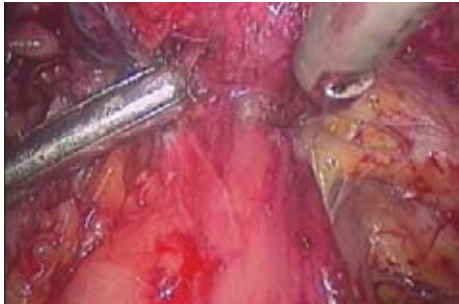
After creation of pneumoperitoneum, 12mm Excel port® is introduced with 0° 10mm telescope. Hernial defect and bowel adhesions are visualised and number of ports and their placement decided. Usually other two 5mm secondary ports are sufficient. The port placement should be such as to form an arc around the primary hernial defect.

Usually the hernial contents reduce spontaneously as soon as pneumoperitoneum is created. The adhesions, if any, are dealt



Hernial contents reduced

with using scissors and Harmonic ACE guided by external compression.



Bowel Adhesions



Adhesiolysis done

After adhesiolysis, the edges of the hernial defects are ascertained by direct vision and palpation. Abdominal wall mapping is done with the help of paper cover of the mesh. We prefer to overlap the mesh atleast 5cm from the edge of defect in all directions so as to prevent any chance of recurrence.



Abdominal wall mapping done with mesh cover

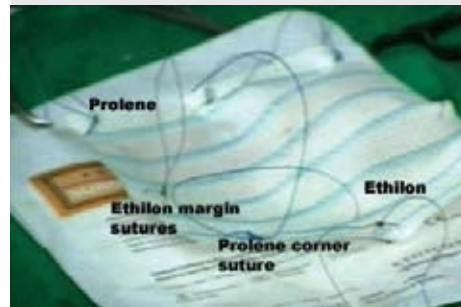
We preferably use Proceed® mesh for LIHR. Implantation of Proceed® Mesh elicits a transient inflammatory reaction which does not interfere with integration of the mesh into the adjacent tissues. The mesh remains soft and pliable, and normal wound healing is not impaired. Due to the softness and pliability of mesh, handling of mesh is very easy outside as well as inside the abdomen. Gore-Tex® dual mesh is also commonly used for LIHR.

EIGHT SUTURE FIXATION TECHNIQUE

Precautions should be taken to avoid contamination of the mesh with skin pathogens. For adequate laparoscopic ventral hernia repair, proper orientation, fixation, overlap and symmetrical tension on the mesh are essential. On all four corners of the mesh, non absorbable sutures (no. 1 blue coloured Prolene) are placed leaving each end 6 inches long. To avoid confusion and facilitate



Blue Prolene sutures at mesh corners Each end left 6 inches long



Black Ethilon sutures at centre of mesh margins Total eight sutures



Rolling of mesh (Half and half)

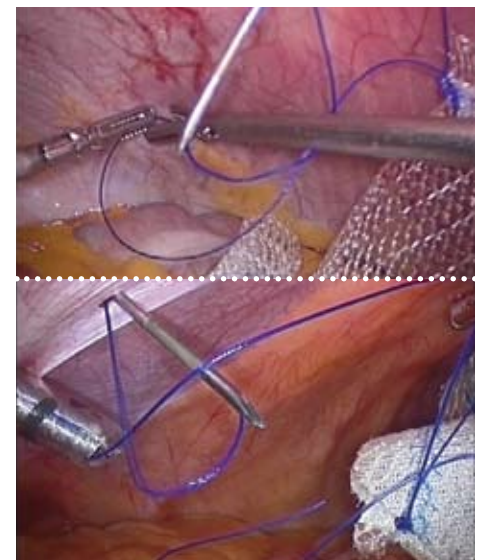


Loose prolene sutures applied at rolled edge of mesh

intraabdominal orientation, the rest of four sutures are applied to the centre of mesh margins using black coloured Ethilon no.1 (**Eight suture technique**). In this technique, the sutures are placed accurately at equidistance on the mesh. We believe that this helps in distributing the forces equally in all directions.

Before insertion, the Proceed® mesh is sprinkled with saline to prevent stickiness to the intestine. The mesh is then rolled half and half and two loose sutures with no. 2-0 prolene applied at 1/3rd and 2/3rd junction. Held with a grasper, the mesh is inserted into the peritoneal cavity in a roll with the long ends of the sutures inside the roll, through the 12mm port (preferably disposable Excel® trocar and not reusable 10mm trocar). Intraperitoneally, mesh is placed with the smooth surface of mesh resting on the intestine.

Small stab skin incisions are made 1.5cm-2cm away from the anticipated position of the mesh to cover the discount of pneumoperitoneum. From each stab wound the epidural needle is passed twice in different directions (1cm apart) so as to get both ends of the sutures out at a distance.



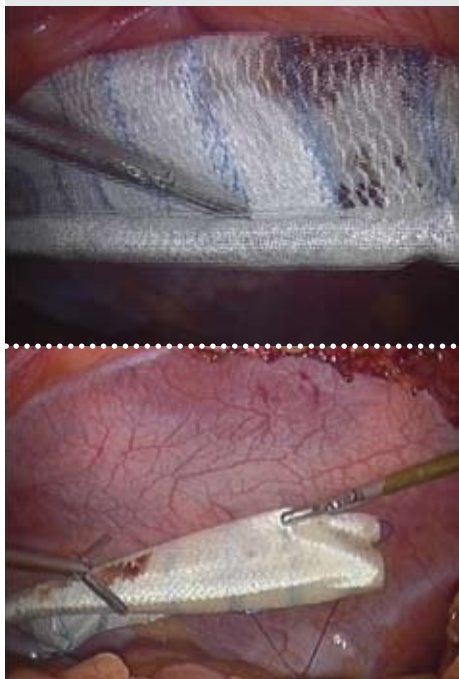
Suture lengths brought out by epidural needle prolene loop

An epidural needle with prolene loop is inserted through the abdominal stab incision into the peritoneal cavity. The graspers feed the long suture ends in the epidural needle prolene loop and the assistant pulls the needle out thereby getting the suture length out. This is done under direct vision. The

blue colour of prolene sutures applied on the corners is easily differentiated from the black colour of Ethilon sutures applied on the centre of mesh margins. The suture ends are held with an artery forceps.



Rolled edge of mesh placed at midline of the defect



Unrolling of the rolled edge of Proceed® mesh

The mesh is fixed at the most distal part first in such a manner that the rolled part of the mesh lies exactly over the defect in the midline. After the distal fixation of mesh, the loose prolene sutures on the rolled edge are removed and the rest of the mesh is unrolled and further sutured transabdominally in similar manner. This facilitates the exact placement of mesh over the defect equidistant on each side. If the mesh is found to be loose in the midline further sutures can be taken. Application of sutures in the centre of mesh does not interfere with any nerve or vascular supply.



The transfascial sutures held with artery forceps



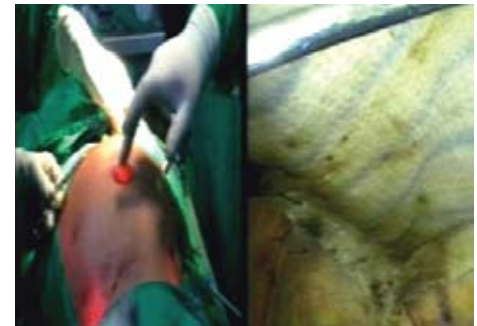
Air knotting technique

The sutures are then tied extra-corporeally in an air-tight manner and subcutaneously buried at the end of procedure by popping out effect. Due to the 'air knotting' of sutures (loose tightening of knot) post operative pain is prevented.

Post-operative morbidity is comparable to other techniques of laparoscopic incisional hernia repair. Nerve entrapment is known with both tackers and sutures. In our experience, sutures are not necessarily the only cause of post-operative pain. The tackers are placed at 1cm to 1.5cm apart and we have achieved this with sutures. Multicentric studies have shown that some kind of suture fixation is

RNI NO.: DELENG/2001/6114
REGD. NO.: DL(W) 10/2076/2009-11
LICENSED TO POST WITHOUT
PRE-PAYMENT: U(W)-38/2009-11
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mandatory for the long-term durability and good fascial fixation of the mesh.



Mesh covering defect

Concepts:

1. "Airknotting" and not "Watertight" suturing to prevent post operative pain.
2. 'Midline' linea alba suture fixation causes less pain.
3. Sutures on parietal side of peritoneum reduces the risk of a adhesion formation (non absorbable tackers on intestinal side can lead to adhesion formation)

Our technique provides well defined and accurate landmarks for the sutures on the mesh intraperitoneally and on the skin. The number, position and the interval of sutures are standardized. We adopted the 'suture only' method to make the repair more secure and economical. The eight suture fixation technique does not add any extra operative time and remains very cost effective to the patient. This technique is sound, easily reproducible and economical.

4th International Workshop on Basic and Advanced techniques of PCNL (Percon-2010), April 2-3, 2010 at Lions Kidney Hospital, New Delhi 45194444, 65807700-02