



# globalnewsletter

BHATIA GLOBAL HOSPITAL & ENDOSURGERY INSTITUTE NEWSLETTER

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## Last wish of a 6 years old kid

Ittinder S. Sondhi, Glaxo Smithkline

In Phoenix, Arizona, a 26-year-old mother stared down at her 6 years old son, who was dying of terminal leukemia.

Although her heart was filled with sadness. She also had a strong feeling of determination. Like any parent, she wanted her son to grow up & fulfill all his dreams. Now that was no longer possible. The leukemia would see to that. But she still wanted her son's dream to come true.

She took her son's hand and asked, 'Billy, did you ever think about what you wanted to be once you grew up? Did you ever dream and wish what you would do with your life?'

'Mommy, I always wanted to be a fireman when I grew up.' Mom smiled back and said, 'Let's see if we can make your wish come true.'

Later that day she went to her local fire Department in Phoenix, Arizona, where she met Fireman Bob, who had a heart as big as Phoenix. She explained her son's final wish and asked if it might be possible to give her 6 year-old son a ride around the block on a fire engine.

Fireman Bob said, 'Look, we can do better than that. If you'll have your son ready at seven o'clock Wednesday morning, we'll make him an honorary Fireman for the whole day. He can come down to the fire station, eat with us, go out on all the fire calls, the whole nine yards! And if you'll give us his sizes, we'll get a real fire uniform for him, with a real fire hat - not a toy -- one-with the emblem of the Phoenix Fire Department on it, a yellow slicker like we wear and rubber

boots.' They're all manufactured right here in Phoenix, so we can get them fast.'

Three days later Fireman Bob picked up Billy, dressed him in his uniform and escorted him from his hospital bed to the waiting hook and ladder truck.

Billy got to sit on the back of the truck and help steer it back to the fire station. He was in heaven.

There were three fire calls in Phoenix that day and Billy got to go out on all three calls. He rode in the different fire engines, the Paramedic's van, and even the fire chief's car. He was also videotaped for the local news program.

Having his dream come true, with all the love and attention that was lavished upon him, so deeply touched Billy, that he lived three months longer than any doctor thought possible.

One night all of his vital signs began to drop dramatically. The head nurse, who believed in the hospice concept—that no one should die alone, began to call the family members to the hospital.

Then she remembered the day Billy had spent as a Fireman, so she called the Fire Chief and asked if it would be possible to send a fireman in uniform to the hospital to be with Billy as he made his transition.

The chief replied, 'We can do better than that. We'll be there in five minutes. Will you please do me a favor? When you hear the sirens screaming and see the lights flashing, will you announce over the PA system that there is not a fire?' 'It's the department

coming to see one of its finest members one more time. And will you open the window to his room?'

About five minutes later, a hook and ladder truck arrived at the hospital and extended its ladder up to Billy's third floor open window... 16 fire-fighters climbed up the ladder into Billy's room.

With his mother's permission, they hugged him and held him and told him how much they LOVED him. With his dying breath, Billy looked up at the fire chief and said, 'Chief, am I really a fireman now?'

'Billy, you are, and the Head Chief, God, is holding your hand,' the chief said

With those words, Billy smiled and said,

'I know, He's been holding my hand all day, and the angels have been singing.' He closed his eyes one last time.

Dear Colleague,

Thanks so much for staying in touch with me. I am sure, you must have received the ballot papers of ASI Election. My gentle friendly reminder is: Mark and send the ballot paper back to ASI, Chennai as early as possible, as all of us know: "Put off for one day, ten days will pass... - Chinese Proverb"

Again requesting you for the support, blessings and vote for Governing Council membership (2010-12) from Delhi State, Association of Surgeons of India.

Sincerely Yours,

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**Nearly all men can stand adversity, but if you want to test a man's character, give him power. Abraham Lincoln**

### EDITORIAL BOARD

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# Total Laparoscopic Hysterectomy (TLH): Ten Steps

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**H**ysterectomy is one of the most common surgical procedures performed by gynecologists. The standard approach to the procedure is either abdominal or vaginal removal of the uterus. However, new developments in endoscopic surgery have made the laparoscopic approach a viable alternative for women needing a hysterectomy. While a growing number of gynecologic surgeons have added the skills necessary for laparoscopic hysterectomy to their armamentariums, many of their colleagues have balked at adopting the procedure, citing concerns about excessive operating time, spiraling costs, and frequent complications.

## Indications

The indications for laparoscopic hysterectomy are similar to the generally accepted indications for hysterectomy.



TLH in big size uterus

1. Symptomatic Fibroids
2. Abnormal uterine bleeding
3. Adenomyosis
4. Adenexal masses
5. Endometriosis
6. Chronic pelvic inflammatory diseases
7. Stage 1 Endometrial & Ovarian cancer

## Contraindications

1. Postpartum hysterectomy
2. Medical contraindication for laparoscopy
3. The size of the uterus and access to it also limit the scope of the procedure

depending on the experience of the surgeon.

## Attention to Detail: The Key

Successful, efficient laparoscopic hysterectomy requires careful attention to detail right from the start

### Preoperative preparation

Good bowel preparation is desired for TLH and is mandatory in patients with previous surgeries, endometriosis, big uterus, etc. Patient is kept on liquid diet for 2 days and the night before surgery Peglec (2 packets) is given to the patient.

### Anaesthesia

General anaesthesia with endotracheal intubation.

The use of a naso-gastric tube avoids trocar injury to the stomach and reduces bowel distension.

### Position of patient

Proper patient positioning is essential to prevent complications and to facilitate manipulation of the uterus. The Allen stirrups allow the legs to be supported in a physiologic position that permits access to the vagina at the start of the procedure and continued access to the uterine manipulator throughout the remainder of the operation. The thighs are elevated 10 degrees above the horizontal plane and externally rotated 15 degrees to provide adequate access to the vagina. To reduce the risk of compartment syndrome, care is taken to avoid putting pressure on the calves.

### Positioning of the operating staff

The surgeon stands on the left side of the patient, the first assistant stands on the surgeon's side and holds the camera. There should be two monitors to allow staff on either side of the table to follow the operation. The surgeon has both hands free for surgery. The nurse is between the patient's legs and has the double role of scrub nurse

and vaginal manipulator.

### Instruments

1. Trocars— one 10mm, two 5mm, one 10mm (if morcellator is to be used) otherwise 5mm Telescope
2. Graspers—atraumatic (Hunter) & traumatic
3. Harmonic (Ace) scalpel
4. Electrocautery—bipolar forceps & monopolar hook
5. Myoma screw
6. Needle holder
7. Scissors—curved
8. Suction irrigation system

### Readying the Ports

A vertical infraumbilical incision is made with a No. 11 blade. The subcutaneous tissue is spread with a hemostat, and the fascia is grasped with a Kocher clamp and elevated from the patient. Grasping the fascia creates a space free of intestine directly beneath the umbilicus. This short distance allows safe introduction of the Veress needle. After insertion of the Veress needle into the peritoneal cavity, the position of the needle tip is confirmed using the plunger technique. Adequate pneumoperitoneum is established. A disposable 10-mm or 11-mm trocar is introduced into the peritoneal cavity. The 10-mm laparoscope is inserted and the peritoneal cavity is inspected.

The patient is placed in steep Trendelenburg position, and placement of the lateral trocar sites is determined by using the laparoscope to transilluminate the abdominal wall. In most patients, transillumination allows blood vessels to be identified, enabling selection of trocar insertion well away from those vessels. Under direct observation, two 5-mm trocars are introduced lateral to the rectus muscles on either side. Another 5mm trocar is placed in the vertical line of umbilicus about 5cm above pubic symphysis.

## Step by step procedure

1. Exploration of the abdominal and pelvic anatomy with special attention to the location of the pelvic ureters, major blood vessels, colon and rectum.



Exploration of ureter and iliac vessels

2. Myoma screw is inserted for uterine manipulation. Role of Myoma screw is most important. By its movement visualisation of either side is achieved. Uterus can also be anteverted (for posterior colpotomy) or retroverted (for bladder dissection).



Myoma screw being inserted

3. The upper pedicle consisting of round ligament, ovarian ligament and fallopian tube are dissected successively using Harmonic scalpel on either sides. The round ligament is grasped at short range from uterus but leaving atleast 1cm of stump towards uterus.

If ovaries are to be removed then Infundibulopelvic ligament are grasped by harmonic close to the ovary and desiccated.



Dissection of upper pedicle

4. Opening of Broad ligament and Bladder dissection.

*Peritoneum is only one cell thick.*

Due to the thin nature of peritoneum, only by teasing action of grasper the two leaves of peritoneum are separated and the anterior leaf of broad ligament is successively dissected using harmonic on either side moving from lateral to medial. Once anterior peritoneum is cut, the bladder is pushed down using a wet gauze.

Small (about 4cm size) gauze piece is wettened and edge is held with grasper. Telescope is removed and the grasper inserts gauze via 10mm trocar. Then telescope is reinserted.

Inside the peritoneal cavity, gauze is again held by grasper and pressure is applied by the gauze onto the cervix, thus pushing the bladder down. This is the most effective as well as the easiest way as no bleeding is encountered and one or two movements are all that is required.

To remove the gauze, edge of the gauze is held by grasper. The grasper holding the gauze along with the 5mm canula is removed from the skin. As the grasper is catching the gauze, the gauze is pulled out of the abdominal tract.



Bladder dissection with gauze

5. Dissection of Uterine vessels

The main principle in laparoscopic hysterectomy is to take small but sure steps and to stay close to the uterus. It is commonly said that "Kiss the uterus but from a safe distance".

While dissecting, if we go more lateral then chances of damage to the ureter is there, while in a too medial approach, chances of damage to ascending branch of uterine vessels is present.

If bleeding is encountered, Bipolar coagulation can be done. Thus surgeon progresses towards the uterosacral ligaments.

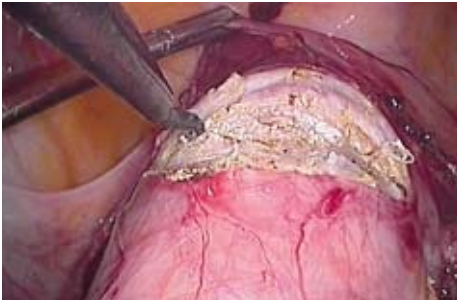


Uterine artery coagulated with harmonic

6. Opening of Vaginal vault

A tampon made with gauze and held by sponge holding forceps is inserted vaginally into the anterior fornix. The cervico-vaginal junction is identified and anterior colpotomy done using monopolar hook. Once freed, the anterior

lip of cervix is held with toothed grasper and rest of the colpotomy is carried out.



**Anterior Colpotomy**

#### 7. Delivering out Uterus

Uterus can be delivered out vaginally via the colpotomy wound or via abdominal route (using a morcellator).

For vaginal delivery of uterus, assistant inserts Sims speculum into the vagina. Laparoscopically the surgeon takes the cervix upto the colpotomy wound. After clear visualisation of the cervix, the assistant catches the lip of cervix with vulsellum and by rotating motions and successive application of cervical clamps uterus is delivered out. In case of large uterus or myomas, piece-meal removal of uterus is required.



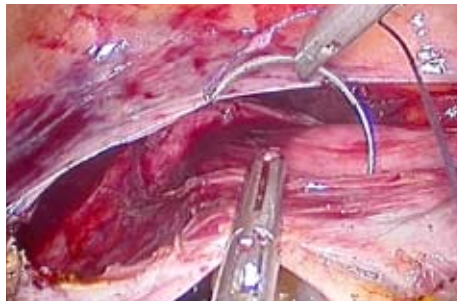
**Morcellation**



**Specimen**

#### 8. Closure of Vault.

Can be done vaginally or laparoscopically according to the surgeons preference.



**Suturing of vault**

#### 9. Check laparoscopy

To ensure hemostasis and reconfirm ureteral and bladder integrity.



**Vaginal vault after TLH**

#### 10. Removal of trocars.

All trocars are removed under vision. Lastly the 10mm umbilical trocar is pulled out over the telescope. The telescope is then slowly removed visualising all abdominal layers while deflating the abdomen.

### Postoperative Care

Patients are discharged 24 to 48 hrs after surgery. Mild narcotic analgesics are usually

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sufficient to control post surgical pain. The patient can resume her day to day activities from the next day onwards.

### Complications

#### 1. Intra-operative complications

Haemorrhage – Most common complication. It is the main reason for laproconversion.

Incidence can be markedly decreased by following proper technique.

Ureter injury, Bladder injury, Bowel injury

#### 2. Post-operative complications

a. Post-operative ileus

b. Haematoma

c. Delayed urinary tract injury

d. Peritoneal complications.

e. Thrombo-embolism.

In five different studies, the overall complication rate for laparoscopic hysterectomy was less than 10%. This rate is lower than that reported for abdominal and vaginal hysterectomies. In six randomized, controlled studies of laparoscopic versus abdominal hysterectomy, the former took longer to perform. However, the laparoscopic approach was associated with less postoperative pain, a shorter hospital stay, and a quicker recovery. Most studies have also documented less postoperative fever, decreased blood loss, and fewer transfusions with the laparoscopic approach.

From the patient's point of view, the advantages are apparent in a shorter hospital stay and a faster return to normal duties

In conclusion, laparoscopy permits the transformation of many abdominal hysterectomies into less invasive procedures. Improvement of techniques and instruments, including morcellators will allow us to reduce the problems and complications as well as the duration and cost of surgery.