Now
Major Surgeries
Through An Opening
The Size
Of A Keyhole

Plus

Keyhole Surgeries of the
brain, spine, hip and
knee replacement, 
hysterectomy and more

Chief Editor - Dr. Manoj. B
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From the Chairman’s Desk

Dear friends,

There have been quantum leaps in the field of medicine in recent years. One of the most important areas in which advances have been made is Keyhole Surgery. Keyhole Surgery offers some powerful benefits to patients. A lot of you may not be aware of the kinds of surgeries that are possible through the keyhole technique.

You may also have many questions about its benefits, the costs etc. To answer all of those we have dedicated this entire issue of Maruthava Vivekam to keyhole surgery. We feel the time has come for EVERYONE to be aware of this safe and cost-effective option. I’m sure you will find these articles useful. If you, or anyone you know is scheduled for surgery, please make sure they read this issue and make an informed choice.

Our doctors will be happy to answer any questions you may have. Please email us at mio@vsnl.com to get in touch.

Good luck and Good health in 2006!

Mrs. Mallika Mohandas
Chairman, MIOT Hospitals

Laughter is the Best Medicine

The World Through A Keyhole

Earlier, patients proudly flaunted a big scar as proof of major surgery.

Not any more. Dr. Mohandas tells us how the “minimalism” concept came to surgery, as well.

When I was a boy I loved to be taken to the local fair. And right there next to the man selling pink panji muttai was the Bioscope Man. For a few paise we were invited to peer down a small hole – and we were instantly transported– the Taj Mahal, the Pyramids, the Eiffel Tower, London Bridge all flashed by as the wheel spun. We saw a whole world through a small keyhole!!

Today as a surgeon, I feel the same exhilaration when I perform keyhole surgery. Gone are the days when a patient proudly flaunted a big operation scar. “The bigger the doctor, the bigger the scar,” was the thinking. Now the wheel has come full circle. With the emphasis on comfort and cosmetic appearance, minimalism has come to surgery. Now “the bigger the doctor the smaller the scar”. Patients are demanding, painless, bloodless and scarless surgeries. Keyhole surgery is the answer to their prayers.

For more information visit: www.miothospitals.com

Minimallism in Surgery
Keyhole surgery is also known as minimal access or minimally invasive surgery as all procedures are done through a small incision – sometimes as small as a keyhole. There is very little dissection of muscles, fascia and tendons in this kind of surgery. The blood vessels and nerves are not damaged. There is very little bleeding.

Internal organs are not exposed to the environment, therefore chances of infection are reduced. Duration of the hospital stay is also minimized – patients can “Come in the morning, go in the evening”.

Patients prefer keyhole surgery as there is no big scar, few complications, and they can get back to their daily routine, including sports, very quickly.

In the following pages you will get to know more about keyhole surgery and the very real benefits it offers you.
Frequently Asked Questions about Keyhole Surgery

In recent times the media has played a prominent role in improving the awareness of the public especially regarding the advances that have taken place in medicine. This has made doctors become more sensitive to patients’ requirements. Patients demand painless surgery, smallest of scars, shortest possible hospital stay and quick recovery.

Q. What is Keyhole Surgery?
A. Keyhole surgery is a procedure introduced into the body cavity through a 0.5cm opening. The area is viewed through a CCD video camera attached to the monitor. Surgeons can perform any type of surgery by viewing the monitor. Because of the smallness of the opening, this kind of surgery is called Keyhole Surgery, Minimal Access Surgery, or based on the equipment used, Laparoscopic or Endoscopic Surgery.

Q. Why Keyhole Surgery?
A. Small incision, minimal pain, no large exposure so chances of infection are almost nil. This surgery is cosmetically acceptable and allows quick recovery – You’re back in the gym after a major Laparoscopic Surgery in 24 hrs.

Q. What surgeries can be performed using this method?
A. It's said about keyhole surgery that you can do any surgery except deliver a live baby!
- Surgeries for Peptic ulcer, Gastro-Eosophageal Reflux disease
- Appendicectomy
- Gall bladder stones (Cholecystectomy)
- Hernias
- Surgeries of the Liver, pancreas, spleen and kidney

Q. How do surgeons benefit?
A. This method allows surgeons to have a magnified and very close view of the organs that are lying at a depth. The cameras can be used to view, not only the operative field, but other organs and spaces as well. More than one surgery can be simultaneously tackled through the same surgical opening.

Q. What is endoscopy?
A. The word “Endo” means “inside”, “Scope” means “to view”. Endoscopy is an investigative procedure that is most commonly done to view the esophagus (food pipe), stomach and intestines, windpipe, its branches and lungs.

Done as an outpatient procedure, endoscopy takes just 10 minutes to perform and does not require any anaesthesia. After the procedure, patients can resume their normal diet and medication, and return to work.

Q. Can any hospital perform Keyhole Surgery?
A. Keyhole surgery requires sophisticated dedicated equipment and instruments for each procedure and specially trained skilled personnel.

Q. Are there more expensive than conventional open surgery?
A. The use of sophisticated equipment, instruments and consumables and special training required for surgeons makes the cost of keyhole surgery more expensive. But reducing the use of medicines, especially antibiotics and length of hospital stay, brings down the costs considerably.

Q. Can children undergo Keyhole Surgery?
A. Anybody can undergo keyhole surgery including children. Since most keyhole surgeries are taken up on an outpatient basis (the patient can leave on the same day), children will be spared a long hospital stay and loss of school.

Q. Can cardiac patients undergo Keyhole Surgery?
A. Keyhole surgery is the safest option for the elderly with hypertension and other cardiac problems.

Take Advantage of Laparoscopy

No Pain, No Big Wounds, No Long Hospital Stay.
Dr. Maran takes us through how some major surgeries can be performed through this technique

What is Laparoscopy?
In Greek (‘Laparo’ means abdomen - ‘skopen’ - view). Here a telescope is introduced into the abdominal cavity through small holes of 1 cm. Images from the scope are projected onto a monitor. Surgery is performed by viewing the monitor. Additional openings of 0.5 cm are made as required. Because of the small point of entry, laparoscopy is also called “Keyhole” Minimal Access Surgery/Endoscopic Surgery/Minimally Invasive Surgery/Minimally Invasive Laparoscopic Surgery/Belly Button Surgery.”

Let’s take a look at some Laparoscopic procedures.

Laparoscopic Appendicectomy
The Appendix is a small worm-like dead tissue at the junction between the small and large intestine which serves no purpose. Appendicitis means infection and inflammation of the appendix. It occurs when laces or undigested food gets trapped in the dead space by the appendix, setting off infection. As with any dead infected tissue, the appendix has to be removed. The best and simplest way is through surgical removal – Appendicectomy.

Compare the treatment
In conventional open surgical Appendicectomy, an 8-10 cm long cut is made in the lower abdominal wall and the appendix is removed. After this surgery you will have to stay in the hospital for 4 days, (2-3 days before food is allowed) and you will be recommended complete rest for another 2 weeks and no heavy work for another 4 months.

Compare this to Laparoscopic Appendicectomy. Only three 0.5 cm holes are made. You will be back to normal activity within 24 hours and can return to work in 2 days. There is no pain and no need for attendants. Two months after the Laparoscopy the scar is gone – while in open surgery it remains as a life long reminder.

Laparoscopic Cholecystectomy
The gall blader is a globular bag located on the undersurface of the liver. Its function is to store and concentrate the bile secreted from the liver. During the process the bile sometimes transforms into a salt called gall stones. Once a stone is formed it can obstruct the bile flow causing digestive problems, pain and fever – and in some cases jaundice. If a stone migrates down it can cause pancreatitis (destruction of the pancreas).

If you suffer from gall stones, the only option is to remove the gall bladder completely. Using the conventional method a 12-15cm long cut will be made in your upper abdomen to perform the surgery. Following this you will need to rest for 10 days before resuming routine work. In the Laparoscopic procedure only 3 holes of 0.5 cm are required and you will be back on your feet the next day itself!

Laparoscopic Assisted Vaginal Hysterectomy
Hysterectomy (Uterus removal), Tubo-ovarian tumours, Ectopic pregnancy, Polycystic Ovarian Disease
- Removal of tumours from the abdomen
- Endoscopic surgery of the brain, sinuses, thoracic cavity, chest cavity and pleural cavity
- Endoscopic surgery of the heart (bypass surgery)
- Arthroscopic surgery of the knee and shoulder
- Minimally invasive total hip replacement surgery
- Minimally invasive total knee replacement surgery
- Endoscopic spinal surgery including microdiscectomy
- Cataract surgery

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Hysterectomy (Uterus removal), Tubo-ovarian tumours, Ectopic pregnancy, Polycystic Ovarian Disease
Arthroscopy - Keyhole Surgery of the Joints

An arthroscope is an endoscope for the joints - (‘Artho’ means joint and ‘scope’ means the instrument to visualize it). In other words Arthroscopic Surgery is Keyhole surgery of the joints. Any joint in the body can be visualized with the arthroscope and the problems can be treated.

Inside the knee
The knee joint is formed by the articulation of the thigh bone (femur), the leg bone (tibia) and the knee cap. The meeting surfaces of the bones are covered with a special smooth tissue, known as cartilage. These two bones are held together by two ribbon like structures inside the joint which cross each other. They are called cruciate ligaments. Then there are two washers in between these two bones which act as shock absorbers.

Arthroscopic Surgery is keyhole surgery of the joints. Any joint in the body can be visualized with the arthroscope and the problems can be treated.

Do you have these problems?
All these structures can be visualized with an arthroscope. Most of the times after an injury when there is no fracture, injury to these structures are neglected. Usually injuries to these structures give rise to pain, instability, knee giving way, locking, audible clicks and swelling in the knee joint. If untreated these will lead to arthritis of the joint at a later date. All these injuries can be easily diagnosed by doing arthroscopy.

The Keyhole Solution
Usually these injuries are treated by opening the joints which result in post-operative pain, prolonged recovery and risk of infection. But, now-a-days all these problems are treated with keyhole surgery. The cruciate ligaments can be reconstructed through arthroscopy. The torn washers can be sutured. When there is a tear in the cartilage, the cartilage can be transferred from one part of the knee joint to the affected part arthroscopically. It is also helpful in removing loose foreign bodies from the knee joint.

Treated Recurrent Dislocation
In case of the shoulder joint, the head of the arm bone and the cup of the shoulder blade are held together by a cover of soft tissue (capsule). When the shoulder joint dislocates, the ball not only comes out of the cup but also peels the soft tissue envelop from the face of the cup. This results in a redundant pouch in front of the cup to which the ball dislocates often (recurrent dislocation). In older days the shoulder joint had to be entirely opened to repair this. This results in pain, prolonged recovery and in some cases stiffness of the shoulder joint. But now-a-days with two (or) three keyholes it can be done using arthroscopes where the patients can get a full range of movements in 4-6 weeks. Similarly torn muscles around the shoulder joint (rotator cuff) can be reattached arthroscopically.

Advantage Arthroscopy
Arthroscopic surgeries are far superior to conventional surgeries in many ways. The damage to your tissues is less. So, post operative pain will be negligible. The recovery will be quicker. Most of the procedures are done as day care surgeries where you need not stay overnight in the hospital. This reduces the cost of the surgery. Last, but not the least, it leaves you with a very small scar.

Can you Benefit from Minimally Invasive Hip Surgery?

Dr. Kesavan A.R., is a Consultant Orthopaedic Surgeon Miot Hospitals and Director - Miot Centre for Diseases of the Hip and Hip Surgery. "Dr. Kesavan has trained in Hip Surgery at the Charite Hospital, Berlin, Germany: Knappschafts Krankenhaus, Puttligen, Germany and John Flynn Hospital, Gold Coast, Australia.

Minimally Invasive Hip Surgery

Did you know that the hip joint is the largest joint in the body and bears 3-7 times the body weight?

It is a ball and socket joint, formed by the junction of the head of the thigh bone and the cup shaped acetabulum. This is enclosed within a closed sac lined by special tissue which secretes a fluid to lubricate the joint. The bones forming the joint are lined by a smooth surface called Articular Cartilege which enables free movement.

Do you have these problems?
When the joint becomes affected, in the initial stages, the lining becomes swollen, red and inflamed. This is Synovitis. If left untreated this leads to progressive loss of the smooth surfaces of the joint resulting in arthritis. Advanced arthritis can be treated only by surgery.

The common causes requiring surgery of the hip are:
1. Rheumatoid Arthritis
2. Arthrosis Spondylosis
3. Avascular Necrosis
4. Tumours in the joint

Surgery involves providing new surfaces for both the sides of the joint - Total Hip Replacement.

Conventional total hip replacement involves removing the entire ball shaped head of femur and the cup shaped acetabulum and putting in an artificial ball and socket. This is anchored deep in the thigh bone and involves removal of a large amount of bone. It fails, the patient becomes crippled.

The Safer Option
In contrast, Minimally Invasive Hip Surgery (articular resurfacing) involves only removal of the damaged lining of the head of femur and the cup.

Specialized instruments are available for this operation that enable surgery to be performed through small opening - a keyhole surgery.

Since the surgery is a resurfacing only, the natural diameter of the head and acetabulum are maintained. Its conventional total hip replacement, smaller head sizes are used. This has important implications - range of movement is near normal.

Other Advantages
The components that are used form a metal-on-metal articulation (i.e.) both the sides of the artificial joint are made of metal, which, in comparison to the conventional total hip replacement (a metal on polyethylene articulation), has better survival and durability and less wear – which means it can last for much longer time. Metal-on-metal has better lubrication, less friction.

Summing up the benefits
- Better soft tissue and bone preservation means less trauma from surgery, which translates into faster recovery, less pain and less complications.
- Restoration of full movements -normal physical activity including sports.
- Better lubrication and metal-on-metal articulation improves better survival rates.

All these factors make keyhole surgery the ideal choice, for the young and old.
How to Make Your Knee Replacement Last a Lifetime

The knee joint is one of the strongest, and most complex of the large joints of the human body. Since it is the most used joint in the body, it is not surprising that as we grow old, the joints lining (articular cartilage) wear away and people find it painful to move - Osteoarthritis of old age.

There are also other crippling conditions, like rheumatoid arthritis, psoriatic arthritis and others.

Treatment for Arthritis
If you have developed arthritis, there are several forms of treatment available to you. These include medical management through analgesics, NSAIDS, disease-modifying drugs etc; physiotherapy and exercises in the form of ultrasonic therapy, heat massage and interventional therapy and quadroscopy; - which may provide temporary remission of the disease.

If you have reached a stage where you are unable to perform your daily routine - then surgery – Minimally Invasive Total Knee Replacement (MITKR) can offer you a new lease of life.

Conventional technique for Total Knee Replacement
Under epidural anaesthesia, an incision is made over the front of the knee, and the knee joint is exposed. With the use of special cutting jigs, the damaged articular surface of the femur and tibia are resected and shaped to fit the knee prosthesis, of which there are several sizes. The femoral and tibial prosthesis are cemented to the bone and between the two is a high-density polyethylene liner. Together they form the new joint on which you can walk painlessly.

Computer Navigation in Total Knee Replacement

Computer Navigated MITKR ensures that knee components are placed in perfect alignment with the normal knee axis to ensure a lifetime of trouble-free performance. It also enables us to make bony cuts with zero degree error and allows us to do soft tissue balancing of the knee, so that all the ligaments are in even tension.

How is MITKR superior?

First of all there is a very small skin incision and this means, less damage to muscle and soft tissue and less blood loss.

As a result of this, you will have less pain in the postoperative period.

With a minimum exposure – maximum accuracy is guaranteed, because of the very small size of the instruments used to cut in small areas.

The great advantage of Computer Navigated MITKR is implantation accuracy, decreased blood loss, decreased pain, shorter hospital stay, increased range of motion and above all (especially for women) - a cosmetic scar.

Patient’s reactions to MITKR

MOIT was the first hospital in the Asia Pacific Region to perform Computer Navigated MITKR. In the last three months we have performed 55 surgeries. The patients are very happy with the small incision and the decrease in post-operative pain. They are able to perform straight leg raising on the third day and full flexion is obtained by the tenth day – the day of discharge.

Keyhole Brain Tumour Surgery – Mission Impossible?

Computer Navigation and Knee Replacement through keyhole surgery, is the answer, says Dr. Barry Rosario

Brain surgery through keyhole? Is it possible? Practically scarcely? Almost painless? Discharge in a couple of days? “Possible!” says Dr. U. S. Srinivasan

Brain Surgery? Doesn’t it involve a threat to life and limbs? Not if the problem can be handled through keyhole surgery.

The Keyhole Option

Modern endoscopes combined with image intensifiers have made pituitary brain tumour surgery through a keyhole incision, possible.

Pituitary Problems

Pituitary brain tumours can develop at any age. The first symptoms are visual - decreasing vision and the inability to see objects clearly from certain angles. It can also produce endocrinological abnormality due to increased secretion of normal hormones. Growth hormone excess in children can lead to gigantism where the child may grow to a height of more than 6 ½ feet. In adults it leads to abnormal protrusion of the jaw, spade-like hands and feet and brittle bones (Acromegaly). Females may suffer from excess of another pituitary hormone known as Prolectin. This leads to cessation of menstrual flow, infertility and milk secretion.

Diagnosis and Therapy

The diagnosis of pituitary is confirmed by Magnetic Resonance Imaging (MRI). If the tumour is large, surgery is the only option. Otherwise it can be managed via medical and radiation therapy. In surgery, the pituitary glands are approached through the nose, removing part of the bony septum, entering the sinus and through it accessing the pituitary.

After the surgery, the patient is mobilized the next day and is discharged at the earliest.

Put your Eye to the Keyhole

Anyone can see the benefits of keyhole cataract surgery over conventional cataract surgery, says Dr. Harshitha Bakshi

Cataract is the most common problem that requires eye surgery. Till date there is no drug which has been proven to treat cataract. Surgery to remove cataract is the only effective treatment. In conventional cataract surgery, the cataract is removed as a whole, therefore the size of the incision is large (12-15mm) and needs 5-7 sutures. Now more advanced techniques have been developed.

Enter Phacoemulsification

This is the current gold standard of cataract surgery. In this technique a 2.8 mm self-sealing tunnel incision is made through which a probe is introduced into the eye. The tip of this probe vibrates fragmenting the cataract into microscopic pieces which are aspirated out of the eye.

Injecting the lens

Once the opaque lens of the eye has been removed by cataract surgery, a replacement for the lens is needed to restore the focusing ability of the eye. This is done by planting an artificial intraocular lens into the eye at exactly the same position from where the cataract has been removed. This becomes a permanent part of the eye.

Foldable intraocular lens of the eye have revolutionized cataract surgery, as they can be folded and injected into the eye through the 3 mm self-sealing tunnel incision made for the phacoemulsification procedure. Thus minimally invasive cataract surgery because of the markedly smaller wound size and self healing wound which is secure even without sutures, offers the patient a host of advantages.

Clear benefits

You can return to normal activity within hours of the procedure as opposed to a few weeks with conventional surgery.

The last wound healing, minimally induced astigmatism and early stabilization of refraction offer you quick and easy visual rehabilitation with better vision.

Dr. Harshitha Bakshi
Consultant Ophthalmologist, MS (Ophthalmology) FRCS, (Edinburgh) Fellowship Cornea Services Medical Research Foundation, (Sankara Nethralaya)
The Key to Successful Keyhole Bypass Surgery

Even major surgeries like Bypass can be done safely through keyhole surgery says Dr. V.V. Bashi.

The common problems requiring surgery for the heart are: Coronary artery disease, diseases affecting the valves of the heart, diseases present from birth like holes in the heart or blocks in the valves, mixing of blood inside the heart.

Normal Method of Surgery

The chest is opened through a cut in the midline. The heart is stopped along with the lungs and the heart lung machine is used to sustain the normal function of the rest of the body. Blood is then cooled. Stopping of the heart is done by injecting cardioplegic which paralyses the heart. Once the operation is over, the heart lung machine is stopped after the heart takes over its function.

Problems with the use of Heart Lung Machine

- Excess bleeding requiring blood transfusion
- Brain problems like stroke
- Kidney dysfunction
- Increased chances of infection
- Increased hospital stay
- Increased cost

Minimally Invasive Cardiac Surgery

Beating heart surgery: In this the heart lung machine is not used to do the operation. The commonest operation done using this technique, is bypass surgery.

Advantages of beating heart surgery

No requirement of blood transfusion

Up to 30% savings in cost over conventional bypass surgery

Minimal stay in the ICU and in the hospital

Minimized chances of infection

Faster rate of recovery

Minimally Invasive Valve Surgery

In this procedure, small cuts are made in the chest to see the heart and do the operation. Valve replacement is done after stopping the heart.

Robotic surgery

With the use of robots, bypass surgery can be done with incision as small as 3”. Removal of veins and arteries can be done through endoscopy.

In our institution minimal access surgeries like Aortic valve replacement, Mitral valve replacement through mini sternotomy and ASD closure through posterolateral thoracotomy are performed with good results. Endoscopic conduit harvesting is done in selected cases. Almost 95% of the CABG’s are done without using the heart lung machine with a 99.5% success rate.

Minimally Invasive Surgery in Urology

Urinary stones have afflicted mankind since ancient times. Bladder and kidney stones have been detected in Egyptian mummies in 4800 BC. New this problem too benefits from the latest advances in surgery.

About 40% of the outpatients seeking medical advice at any clinic present symptoms relating to the urinary system.

What brings the patient to the Urologist?

Frequent urination especially during nights, inability to pass urine freely, blood-stained urination, burning urination, severe colicky pain at the flank or lower abdomen, pain and swelling of the test are all symptoms which prompt the patients to consult the urologist.

What are the tests required to diagnose urologic problems?

A detailed medical history, clinical examination, urine and blood tests for sugar and uric acid, X-ray and ultrasound scan of the kidneys, may all be required.

What are the common urologic conditions?

Kidney stones, ureteric and bladder stones, urinary tract infection, enlarged prostate with urinary obstruction, cancer of the kidney, bladder. Also, prostate, stricture urethra and hydro nephrosis and phimosis are common diseases.

What is the role of minimally invasive surgery?

Open Surgery was the mainstay of treatment until the year 1990, after which a breakthrough occurred with the advent of Endo Urology and extra corporeal shockwave lithotripsy. Most Urologic conditions could be treated effectively and noninvasively, with shorter operating hours, shorter hospital stay and early return to work.

Cystoscopy: This involves direct inspection of the lower urinary passage, urinary bladder and enlarged prostate gland using fiber optic telescopes. It is an outpatient procedure not requiring anaesthesia. It is useful for diagnosing the cause of bleeding from the urinary tract.

Ureteroscopy: A very useful tool to diagnose and treat urinary stones, strictures and tumours of the ureter and pelvis. Usually done under regional anaesthesia, it is very useful in relieving blocks in the kidneys due to stones, tumours or strictures.

Trans urethral Resection of Prostate (TURP)

This permits removal of enlarged prostate in multiple chips without any skin incision, using under water electrosurgery and cutting electrodes. The procedure is performed generally under local anaesthesia, with the patient lying prone on the OT table. Using Xray control a track is created to the kidney from the overlying skin. Special end urologic instruments are, used to widen the track and fragment the stones using energy sources like air under pressure (pneumatic), ultrasonic sources.

What is the MIOT experience?

The Urologists at MIOT are well experienced in both Open Surgery and Endo urology. We have performed over a 100 minimally invasive procedures in the past two years, on patients from Oman, Maldives, Seychelles, Sri Lanka, Canada, Singapore, and from all parts of India.

Dr. V.V. Bashi
Chairman and Chief Surgeon, Cardiac Care Unit, MIOT Hospital has an excellent reputation for complex cardiac surgeries. He has performed over 5000 coronary bypass surgeries and over 1500 beating heart bypass surgeries with a success rate of 99.5%.

Dr. R. Jayaganesh
Consultant Urologist, MIOT Hospitals Specialist in Endo Urology, Andrology and Reconstructive Urology
Minimal Access Hysterectomy -The Cutting Edge

Good news for ladies – says Dr. Saraswathi. Uterus removal through keyhole surgery leads to quicker recovery and smaller scars.

Hysterectomy means removal of the uterus and sometimes the ovaries too are removed (oopherectomy) with the uterus. There are many reasons for the removal of the uterus. Some of the common reasons for performing hysterectomies include fibroids of the uterus, abnormal uterine bleeding, endometriosis, polyps of the uterus, chronic pelvic pain or cancers lesions in the uterus.

The usual methods of surgical treatment for these are either an abdominal hysterectomy or a vaginal hysterectomy.

Convenient New Method

The conventional or open hysterectomy is done through a large abdominal incision and requires a hospital stay of 7-10 days with a long recovery period of upto 8 weeks. It leaves a visible scar on the abdomen.

In recent years the minimally invasive laparoscopic assisted vaginal hysterectomy is replacing conventional surgery as the procedure of choice. Its greatest benefit is the potential to convert what would have been an abdominal hysterectomy into vaginal hysterectomy.

What you will undergo

In a laparoscopic assisted vaginal hysterectomy, an instrument called a laparoscope and other specialized instruments are used to help with the removal of uterus which is completed vaginally. The instruments are passed through 3 or 4 half inch cuts on the abdominal wall. The supporting ligaments of uterus, blood vessels and tissue that surround and support the uterus are cut and the blood vessels are sealed off. Then a cut is made through the vagina, uterus is separated from the vagina and removal with or without ovaries is done.

Shorter Recovery Time

After this procedure you will be required to spend atleast 1-3 days at the hospital. You will experience very minimal post operative pain and the recovery time is shorter. There is no abdominal cut, only small punctures, so there is lesser possibility of wound related complications. Therefore, you will be left with a smaller scar instead of a large abdominal scar.

Dr. Saraswathi, M.B.B.S., D.G.O. Consultant Obstetrician & Gynaecologist, MIOT Hospitals

Surgery of the Nose

Primary sinus surgery involves surgery for repeated sinusitis, nasal polyposis complications of sinusitis, headache and facial pain, fungal infection of sinuses, early detection of cancers and surgery for correction of CSF leak.

In transnasal endoscopic assisted surgeries of the skull base, visualization is superior.

Advances of technology have made it possible to extend endoscopic surgeries of the nose, beyond sinuses, to skull base regions mainly for transnasal pituitary tumour removal, biopsy of skull base tumours, to check response to treatment, repair and closure of CSF leak, and more.

Dr. Manoj B
HEAD, Department of Head and Neck Surgery, MIOT Hospitals, has worked in the ENT Departments of premier institutions in India, specialising in ENT surgery.

Breathe Easy – Bronchoscopy is here

A safe and specialized procedure – extremely useful in the diagnosis and management of many pulmonary (lung) diseases.

The bronchoscope is an endoscope used to visualize the airway (windpipe). Bronchoscopy is mainly used for the diagnosis of suspected pulmonary infections like TB, pneumonia, lung abscess etc. Through bronchoscopy, it is possible to obtain a sample from the exact side of the affected lung. By analyzing the sample the infection can be treated most effectively.

Crucial for diagnosis

Bronchoscopy is the primary diagnostic tool for patients with suspected lung cancer and those coughing out blood (haemoptysis).

In cancer biopsy of the lung, tissue can be extracted by this method, avoiding the need for opening the chest wall.

Certain lung cancers affecting the airway can also be treated by laser therapy and brachytherapy using this method.

Further symptoms

Unexplained and prolonged cough, haemoptysis, change in character of cough, uncontrolled wheezing, may require bronchoscopy to find the cause. Sometimes cancers, or a foreign body that may be the cause for the above symptoms can be diagnosed and treated by this simple procedure alone. Foreign bodies like a peanut, denture, chalk, etc. which have been aspirated into the airway can be removed without any surgical intervention.

Dr. P.Muthurajan, M.B.B.S., D.T.C.D. Consultant Pulmonologist & Intensivist, MIOT Hospitals

Outpatient procedure

This procedure is being done as an outpatient procedure. No anaesthesia is required. It is pain free. Absolutely no incision is needed as the bronchoscope is passed through the nose or mouth into the airway. The ease of access into the lung, direct visualization, flexibility, simplicity of use which allows rapid examination even in restless/disseased patients, makes bronchoscopy the procedure of choice in almost all kinds of lung diseases.

Keyhole Surgeries of the Nose

Keyhole surgery of the nose enables surgeons to be more thorough, says Dr. Manoj B

Keyhole surgeries of the nose give us surgeons an excellent visualization of tissue to avoid any errors. The scope gives us an end to end, 3D view that helps ensure a complete removal of the disease, leaving no chance for recurrence.

Why Keyhole Surgery?

For one, there is no cutting wound. In conventional surgeries we cut through the nose or the inside of the upper lip. There is no ugly facial scar. Repeated surgery can be avoided and so can other life-threatening complications. As there is no incision, you will not experience the blood loss of conventional surgery. Also there is no major trauma to the eyes. There is only minimal access to the brain so major surgical stress is avoided. Recovery too takes place in a shorter period.

A safe and specialized procedure – extremely useful in the diagnosis and management of many pulmonary (lung) diseases.

The bronchoscope is an endoscope used to visualize the airway (windpipe). Bronchoscopy is mainly used for the diagnosis of suspected pulmonary infections like TB, pneumonia, lung abscess etc. Through bronchoscopy, it is possible to obtain a sample from the exact side of the affected lung. By analyzing the sample the infection can be treated most effectively.

Crucial for diagnosis

Bronchoscopy is the primary diagnostic tool for patients with suspected lung cancer and those coughing out blood (haemoptysis).

In cancer biopsy of the lung, tissue can be extracted by this method, avoiding the need for opening the chest wall.

Certain lung cancers affecting the airway can also be treated by laser therapy and brachytherapy using this method.

Further symptoms

Unexplained and prolonged cough, haemoptysis, change in character of cough, uncontrolled wheezing, may require bronchoscopy to find the cause. Sometimes cancers, or a foreign body that may be the cause for the above symptoms can be diagnosed and treated by this simple procedure alone. Foreign bodies like a peanut, denture, chalk, etc. which have been aspirated into the airway can be removed without any surgical intervention.

Dr. P.Muthurajan, M.B.B.S., D.T.C.D. Consultant Pulmonologist & Intensivist, MIOT Hospitals

Outpatient procedure

This procedure is being done as an outpatient procedure. No anaesthesia is required. It is pain free. Absolutely no incision is needed as the bronchoscope is passed through the nose or mouth into the airway. The ease of access into the lung, direct visualization, flexibility, simplicity of use which allows rapid examination even in restless/disseased patients, makes bronchoscopy the procedure of choice in almost all kinds of lung diseases.
In My Own Words

About seven years ago I was diagnosed with two herniated discs. I was working for a trucking company and I had hurt my back in a minor accident. One of the herniated discs had ruptured causing severe right leg pain. Another disc though damaged was not touching the nerve roots. I had an open discectomy operation done in Muscat on the first disc. The recovery period took about 2 months. I had to give up my job in the trucking company and settle for a more sedentary job.

“Oh No! Not Again!”

The second herniated disc level did not cause me any pain until 5 years later. One day, when I was bending down to pick up my child, I felt a sudden and severe back pain radiating down my left leg. It was similar to the pain I had felt before. So I called Dr. Mohandas at MIOT Hospitals and scheduled an appointment. He prescribed some pain medication and we tried some conservative treatment like physiotherapy for a while. When my pain did not subside we did an MRI scan and I was told that I would need an operation to relieve my pain.

Having gone through an agonizing saga of events following the previous discectomy, I dreaded the idea of a reoperation. However, Dr. Mohandas convinced me that this time the surgery would be different. This would be an endoscopy assisted, micro-discectomy procedure done through a small incision, with a series of scopes. The post-operative period would be painless, he promised, and I should be able to walk on the day of the surgery itself.

Surgery – with a difference

I found this hard to believe. Yet, I had full faith in Dr Mohandas and his surgical team. I myself had witnessed many of his patients with an agonizing back pain, recover miraculously and doing well in Oman. I took the decision to undergo endoscopic discectomy in MIOT Hospitals. The surgery started around six in the morning and was completed by 7:00 am. I was back in my room and on my feet by noon pain free. I was discharged the very next day and I was back in the office within five days. Soon I left for a 10 week trip to Europe - pain free, the entire time.

The interesting thing about my case is that I have undergone two discectomy procedures - with a vast difference between the two. With the open procedure my surgery was longer. I was under general anaesthesia. I had a larger incision with stitches that had to be removed two weeks post op. I was in hospital for seven days and I had to have antibiotics intravenously. It was a full blown surgical procedure. I was still sore when I went home because they cut through a major back muscle in order to reach the disc, and remained sore for atleast two to three weeks. Besides I had to restrict my activities for almost 10 months before returning to routine. I had to give up my job.

“No comparison”

With the endoscopic procedure, on the other hand, I only had to have a local anaesthetic. I was completely pain free after the surgery. There was no cutting of the back muscle and I received only three stitches which did not have to be removed. The major difference between the two, is that instead of making a larger incision and cutting through the large back muscle, the surgeon made a small incision and used scopes, gradually adding one on top of the other until he was able to do the surgery through the scopes. Plus, there is no comparison in procedure time. If I had an open procedure the second time around, I would not have been home 8 hours later - having dinner with my family!

Dr. C S Dhillon, M.S., DNB, FNB
Director, MIOT Centre for Spine Surgery

Spine surgery made safer, simpler, surer

You’ve heard from the patient, now get the surgeon’s point of view on Keyhole Spine Surgery of the Spine.

Small incisions Reduce trauma

Inadvertent disc herniation can be avoided with minimal incisions.

Avoidance of general anaesthesia

This means it is minimally invasive - minimizes muscle, ligament and bone disruption and allows faster healing.

Quicker return to work and normal activity

Patients who undergo a micro discectomy can be discharged with minimal scarring and complete relief from leg pain after an overnight admission and observation.

Endoscopic techniques allow the same surgery to be performed through an incision of less than 1 cm in size further minimizing disruption of normal structures.

Advantages of Endoscopic Discectomy

• Avoidance of general anaesthetic
• Smaller scar
• Less post-operative pain
• Shorter hospital stay
• Quicker return to work and normal activity

Factors leading to disc prolapse

Several factors can lead to annular tears and disc prolapse. This includes smoking, increased coughing, sitting in a stooped posture, driving, lifting heavy weights etc. Tear in the annulus also leads to leakage from the nuclear material which is toxic to the nerves. The resulting inflammatory response causes a neural irritation with radiating pain in the legs (sciatica). This could be accompanied with numbness and loss of reflex. Surgical intervention may be required to relieve the leg pain.
HOW TO CONVERT YOUR MAJOR SURGERY INTO A MINOR ONE

Recent advances in medical technology enable major procedures to be carried out through an opening the size of a keyhole.

Keyhole surgery offers several benefits: A quick discharge (sometimes on the same day), quick recovery, less pain and a much smaller scar.

All kinds of surgeries from appendicectomy, to hysterectomy, to brain tumour removal, can be performed using the keyhole technique. So ask your surgeon if your major surgery can be converted into a keyhole surgery.

To know more about MIOT Keyhole Surgeries attend our free symposium or access our website.

MIOT Keyhole Surgeries
Symposium on Feb 12, 2006, 5.30 pm onwards