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Minimally Invasive Surgery

Many years ago when a patient needed to have some type of abdominal surgery they would have a large incision, an extended stay in the hospital, significant post-operative pain, and a long recovery period. Fortunately, modern medicine has improved many surgical techniques for the better. We now have many types of minimally invasive surgery that decrease the complication risk and improve the overall surgical experience. One surgical technique that has been improved is laparoscopic surgery. This type of minimally invasive surgical intervention has been present for many years. In fact, the first documented laparoscopic surgery was performed in 1910. Since that time this form of surgery has become the treatment of choice for surgeons for many different types of procedures. Laparoscopic surgery allows for smaller incisions, a quicker recovery time, less post-operative pain and a shorter stay in the hospital.

Laparoscopic surgery is considered minimally invasive due to the smaller incisions and quicker recovery time. This type of surgery for gynecological issues has become a great alternative to doing open procedures. There are many reasons for a surgeon to choose this course. It is a good tool to diagnose the reason for pelvic pain, lack of fertility, and recurrent pelvic infections. Once a condition has been diagnosed, the laparoscopic surgery can then be utilized to treat conditions such as endometriosis, uterine fibroids, ectopic pregnancies, pelvic inflammatory disease, ovarian cysts and reproductive cancers.

In a laparoscopic surgery, the tool used to visualize the inside of an abdomen is called a laparoscope and instruments, like joy sticks, are placed through devices called trocars which are inserted through small holes in the skin. In most surgeries there is a small incision made in the abdomen and carbon dioxide is used to inflate the abdomen. This separates the skin from the internal organs, allowing room for the surgeon to work. The surgeon now has a better view of the internal organs and the surrounding tissues. Following the inflation of the gas, two or three trocars are inserted through the abdomen. One trocar will hold a scope connected to a camera that projects the internal systems onto a monitor so the surgeon can see the area that is requiring surgical intervention. The other trocars will hold the specialized instruments needed during the surgery such as scissors, graspers, cauterization tools, and specimen bags for any tissues that are removed.

In obstetrics and gynecology, minimally invasive laparoscopic surgery is utilized to perform many different types of surgery. These include but are not limited to a partial or total hysterectomy, removal of ovaries or ovarian cysts, uterine fibroid removal and many other surgeries that could benefit the patient population. One of the more recent advances in minimally invasive surgery is robotic-assisted laparoscopy. A robot called "The Da Vinci" allows the surgeon to sit at a console that is near to the patient. The surgeon controls the robot's arms by using foot pedals and hand graspers. The console shows a three dimensional view on the video screen, and the surgeon is able to navigate operative tools through laparoscopic ports that work inside the patient via wrist and arm motions.

Over the course of time, laparoscopic surgery had made many surgical advances. It has brought minimally invasive surgery in the field of obstetrics and gynecology to the top of its field. Female patients that require surgical intervention now have the choice of a less invasive surgery, less post-operative pain, and a quicker recovery time.