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Available online at: http://www.iajps.com ***Research Article***

A STUDY ON THE SINGLE INCISION LAPAROSCOPIC CHOLECYSTECTOMY

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Abstract:

Objective: *Single incision laparoscopic surgery (SILS) is one of the most acceptable methods of all population. First advantage of the surgery is unseen defect. The aims of our research study to show the first skill of this surgery with all population.*

Methodology: *This method of surgery was applied on thirty patients who suffer from gallstones in Mayo Hospital Lahore from October 2017 to April 2018. The data collected prospectively included age, gender, operative duration, difficulty, pain and reason for conversion.*

Results: *In 30 SILS cases twenty-seven were well done. 80 minutes was the mean operative duration of this surgery (ranges 50-180min). Three participant required more ports for the completion of surgery. All participant of this method were discharged from hospital on second day of surgery one patient were remain due to intestinal pain. That participant was discharged from hospital on sixth day of surgery. In two patients we had seen soft infected wound. One patient was exposes for pain study.*

Conclusion: *SILS cholecystectomy is a protected, feasible and without seen defect surgery if it was done on senior laparoscopic specialist first we need more information about this method.*

Key Words: *Prospectively, Laparoscopic, cholecystectomy, Participant, Nephrectomies, Urological.*

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INTRODUCTION:

This method of surgery was identified in 1992 for the elimination of gall bladder. The positive point of this method of surgery was good & corrective results, less pain after surgery & patient recover in short time as compere open cholecystectomy made world wide acceptance of the procedure. In past years it was successfully struggle to decrease the quantity of normally used four ports have been noted. Decreasing the quantity of ports has been appeared to enhance completion. In nineteen ninety-nine Piskun was first introduce the Single incision with the infusion of two trocars through the navel and multiple stitch to secure the gall bladder. Many cases done nearly on the bases of SILS like donor nephrectomies, urological procedures; proctology surgery, Bariatric surgery and Video-assisted thoracoscopic surgery (VATS) for evacuation of empyema were advertised.

SILS is advance and clean method of surgery. The advantages of SLIS were less pain, less time of recovery, and we recommended both patients & doctors to follow this new method of surgery the initial drawbacks of SILS are the limited movement after operation, the number of ports that can be used, and the exchanging of operation equipment during surgery, due to this reason it increase intricacy & technical incompatibility of the surgery. Further technical incompatibility for SILS, multiple instruments that need to make it angular and small profile trocars are being required.

In past years NOTES has been consider the new method of endoscopic surgery without stitch. There are many disadvantages of this method of surgery such as access, less safe for patient, wound infection there were no correct instrument for operation and complexity in movement have depressed the use of NOTES methods. Due to this difficulty of NOTES, the patient like to follow (SILS) for surgery. In this research work study, we share our first experience of cholecystectomy via SILS in a series of thirty patients.

METHODOLOGY:

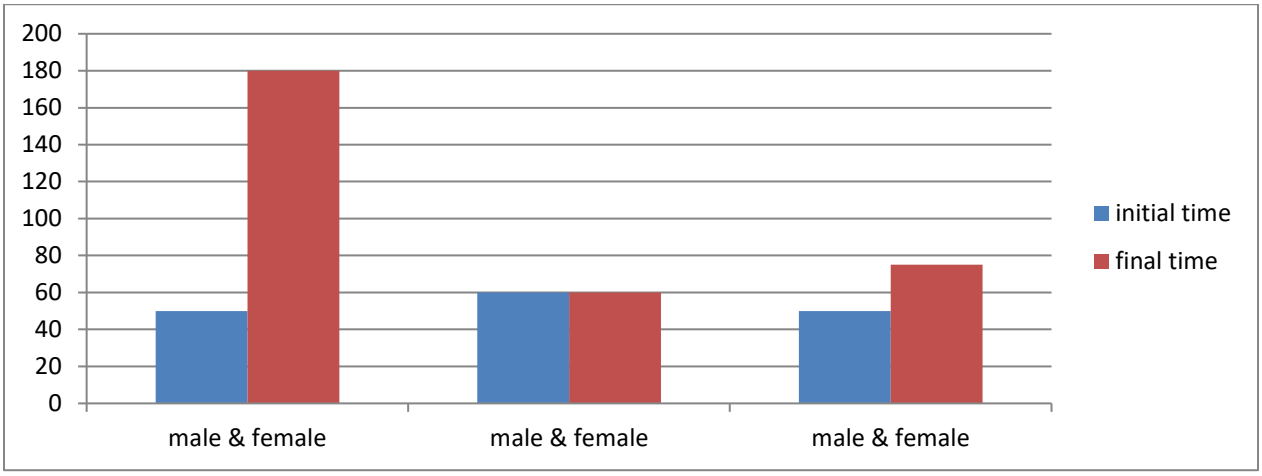
This research work was done in surgical ward of Mayo Hospital Lahore, from Oct 2017 to Apr 2018. 30 participants of cholelithiasis were examined in this research. Patients with acute biliary colic we're removing. Instruction about the SILS method was given to the patient and written approval was taken from patient. A single intraumbilical fifteen mm laceration was made and the navel was pushed out open the visceral layer and peritoneal cavity. After exposing the peritoneal cavity, a SILSTM port (Covidien, USA) was inter, potential space made with CO2. Three trocars inserted through the SILS 1st port for cam-era, 2nd for Endo Grasp to hold the neck of gall bladder and 3rd for anatomization.

Gallbladder is divided into three sections: the fundus, body, and neck when the fundus of the gall bladder was seen a 2/0 surgical suture was inserting through the abs and passed through the fundus of gall bladder and return through abs. It was used to retract the gall bladder. When the operating surgeon visualize region of the hepatocytes triangle articulating grasper placed on the neck of gall bladder and said it from operation area. The 2nd surgical instrument was used to move Calots triangle from operation area. When Calots triangle expose completely than the cystic duct and artery were separated, and both structures are carefully clipped and transected. Electrocautery or harmonic scalpel is then used to separate the gallbladder from the liver bed completely. When the operation of liver was complete the gall bladder removed by the help of single port instrument and Just before completion of liver dissection, hemostasis of liver bed was secured and the hepatobiliary area was irrigated with normal saline. The gall bladder was removed with single port device and sent for anatomic pathology. Abdominal wall was stitch with interrupted Vicryl two/zero and navel was stitch with Vicryl rapid thee/zero.

RESULTS:

In this research study 30 participants were study twenty-eight female & two male were treated by SILS. Thirty-seven were the average age of all patients (range twenty-seven-sixty years). The surgery duration from first incision to close the wound ranges from fifty minutes to one eighty minutes. Operative time was diminished significantly from one eighty minutes to under an hour after the tenth SILS cholecystectomy and after that remaining parts settled between fifty to seventy-five minutes. Understanding who was worked for Acute Cholecystitis with various attachments took one eighty minutes and it is the most extreme time in this research work.

	Operative time for 30 SILS cholecystectomy			
No of patients	Male patients	Female patients	Initial time	Final time
10	1	9	50 min	180 min
10	1	9	60	60 min
10	0	10	50 min	75 min



Three participants were those who required more forts to extract gall bladder. The surgery for Acute Cholecystitis with multiple adhesions was converted into four port LC. Due to the intra-abdominal pressure Liga clip slip in 2nd patient which causes bleeding during surgery. Some patients were very fatty due to which Calot's triangle was not seen for the completion of operation we place two more ports.

All patients were discharged on the second day of surgery except one patient who had serious intestinal pain but other situation was seen normal. Fever, gut sounds were not found. On 2nd day of surgery the abdominal ultrasound was conducted which showed minimum addition of liquid in gall bladder fossa. The improvement was occurring in five days on the 6thof surgery patient were discharge. Patient were followed the doctor's instruction up to one month. In two patient's umbilicus infection was seen after some days of discharge with no history of infection we recommended the patient for daily dressing.

DISCUSSION:

SILS is a one of the good and acceptable method all our world for intra-abdominal and intercostal catheter surgeries. There were many adversities for surgeon in SILS method due to the used of new instrument. The SILS method of operation was not easy because the operating instrument and camera are inserted in the single opening on same axis. The most difficult stage of SILS methods is to operate between operative instrument & camera to minimize the operative fatigue. In future, we expected this adversity will be removing by the advancement of new surgical tool, all instrument should be in single line, due to which less interfere occur in. There may be a chance in future to enlarge the length of the camera to allow the companion to stand easily with his/her hand far from the operating surgeon.

We all know that in new method surgeons were face too much difficulty as compere to old one technique the aims our research studies to decrease the complication of this new technique. We all know the first experiences with LC are related with higher rates of bile duct infection. For more accurate difficulty rate of SILS we needed more study to know complete complication rate. At the finishing of the technique, a careful reformation of the umbilicus will improve its initial position, thus obtain an absolutely unseen scar. There is no common method for trocar placing in SILS. We used Covidion TM port in this research. In this research study the modification rate of single port to four port is tin percent which is slightly less than Edwards C eleven.25 percent. In this research study operative duration is reduce slowly from one

eighty min up to one hours which is slightly reliable to Tacchino, which is one eighty min for first SILS to fifty min & more than Marchant AM which approximately from forty-five min to one hour thirty min.

The deviation in operative duration depends on the seniority of the surgeon. The mean operative duration is one hour twenty min which is slightly reliable to Romanelli, which is one hour twenty point eight min and more than Edwards which was one hour nine min. The Operative duration depend on the size of gall bladder i.e. inflammation, adhesions, habit of the patient and seniority of the surgeon. Pain & injury infection is the most common difficulty of SILS in this research. Two (six point six percent) patients had wound infection which is more as compere to Merchant AM had zero wound infection. We couldn't analyze the Cause of the pain and would advise for further research to solve this problem. It is hard to remark on the length of expectation to absorb information which is specifically corresponding to the experience of specialist and his group, yet in researcher perspective eighty to tin cases are sufficient for prepared laparoscopic specialist, which is very similar to Erbella JJ.

CONCLUSION:

SILS cholecystectomy is protected & doable, giving fast recuperation no obvious scar; albeit further research is required to achieve this end before it tends to be generally prescribed. SILS cholecystectomy ought to be performed by an accomplished laparoscopic specialist.

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