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Original Research Paper

General Surgery

SINGLE INSCISION LAPAROSCOPIC CHOLECYSTECTOMY POSSIBILITIES AND PITFALLS

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ABSTRACT Single Incision Laparoscopic Surgery has only gained popularity over last few year and this technique in mainly offered at major laparoscopic centers. SILS is an advance minimal invasive surgical procedure in which the surgery is done through a single entry point i.e. the navel. A 20 mm incision at the umbilicus is all that is required for the surgery. A scope is inserted that can be moved around in the body & returns images from various angles giving the surgeons a larger field of vision for the surgery & the instruments used to performs the surgery are flexible there by enabling extra reach and maneuverability. SILS involves the use of flexible instruments and a higher level of laparoscopic expertise. SILS was mainly used for Gall stone Disease Appendicitis & Hernia but in recent year SILS is using in almost every laparoscopic procedure.

KEYWORDS :

INTRODUCTION-

This study was conducted to compare the result of single incision laparoscopic surgery with conventional laparoscopic surgery & open – surgery & to seek the advantages & pitfall of single incision laparoscopic surgery, and to know the kinds of surgery which can be performed with single incision laparoscopy. Single incision laparoscopic surgeries performed between June 2015 to September 2018 were included in this study. The advantage of single incision laparoscopic surgery for patients are less post operative pain, minimal scaring (cosmetically better), shorter – hospital stay and earlier return to normal activity.In the debate of single incision laparoscopic surgery & conventional laparoscopic surgery, it was concluded that SILS is safe, feasible, cosmetically – better and probably a better option to conventional laparoscopy & open surgery. The major challenges in Single Incision Laparoscopic surgery are crowding of instruments and crossing of instruments, which require expertise, but as surgeon becomes familiar with Single Incision Laparoscopic Surgery, SILS can be performed as smoothly as conventional surgery. The pitfalls of SILS include – costlier instruments, advance expertise and long learning curve. Cost of the SILS can be lowered with use of conventional instruments in place of SILS port.

STUDY-

After insertion of 5mm port, put patients in Antitrandelenberg position & related to left.

- Dissection performed with electric country hook in Left trocar & an endograsper roticulator in other trocar.
- The cystic artery & duct were first exposed then separately clipped with standards 5mm clip applier and excised using an endoshear roticulator.
- The gall bladder then extracted with a standard endocatch through umbilical site. Careful control of haemostasis is achieved & penrose drain was placed in the choleystectomy lodge through 2mm incision for the mini loop retraction. Finally 25 mm trocar site was closed with an absorbable suture & umbilical physiological position restored.

RESULTS AND DISCUSSION-

In study of SILC by Pisanu-A, Recia et al. Post opp analgesia required up to 24 Hr that is equal to conventional laparoscopy as upto 24 Hr but in our study patients required post operative analgesia < 24 hr, that is less than the study of Pisanu-A, Racio et al & than conventional laparoscopic cholecystectomy. So earlier return to routine work. Hospital stay is equal to in all three study. Post operative complication rate was 5% each in study of Pisanu-A & Racia et al & conventional laparoscopy. But in our study post operative complication rate was much less 1.90%.As compare on the basis of scar, in our study scar was cosmetically better than conventional laparoscopy.

S. No.		SILC by (Pisanua Recia et al)	Conventional Laparoscopy	In our study
1.	No of pt	465	427	368
2.	Site of incision	Umbilicus	Four incision as in conventional laparoscopy	Umbilicus
3.	Operative time	45.8 min	63 min	24 min
4.	Post operative analgesia	Up to 24 yr	Up to 24 yr	< 24 yr
5.	Hospital stay	3	3	3
6.	Post operative complication	5%	5%	1.90%

CONCLUSION

1. SILS operation can be performed with conventional instruments.
2. Advance Single incision laparoscopic surgery may require special instruments eg: - SILS port, which increase the cost and requires expertise of operating surgeon.
3. SILS is cosmetically better than conventional laparos copic surgery & open surgery.
4. SILS is safe and feasible for all laparoscopic surgery.
5. SILS has advantage of less pain, less intra operative and post operative complication, shorter hospital stay & earlier return to routine activity.

REFERENCES

1. Mouret P. How I developed laparoscopic cholecystectomy. Ann Acad Med Singapore. 1996;25:744
2. Litynski GS. Profiles in laparoscopy: Mouret, Dubois, and Perissat: The laparoscopic breakthrough in Europe (1987-1988) JSLS. 1999;3:163–7.
3. Litynski GS. Erich Muhe and the rejection of laparoscopic cholecystectomy (1985): A surgeon ahead of his time. JSLS. 1998; 2: 341
4. Kalloo AN, Singh VK, Jagannath SB, Niiyama H, Hill SL, Vaughn CA, et al. Flexible transgastric peritoneoscopy: A novel approach to diagnostic and therapeutic interventions in the peritoneal cavity.Gastrointest Endosc. 2004;60:114–7
5. Gettman MT, Lotan Y, Napper CA, Cadeddu JA. Transvaginal laparoscopic nephrectomy: Development and feasibility in the porcine model. Urology. 2002; 59:446–50.
6. Rao GV, Reddy DN, Banerjee R. NOTES: Human experience. Gastrointest Endosc Clin N Am.2008; 18:361–70. 10.
7. Rattner D, Kalloo A. ASGE/SAGES Working Group on Natural Orifice Translumenal Endoscopic Surgery. October 2005. Surg Endosc. 2006; 20:329–33.
8. Pauli EM, Mathew A, Haluck RS, Ionescu AM, Moyer MT, Shope TR, et al.

Technique for transesophageal endoscopic cardiomyotomy (Heller myotomy): Video presentation at the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) 2008, Philadelphia, PA. Surg Endosc.2008; 22:2279–80.

9. Shin EJ, Kalloo AN. Transcolonic NOTES: Current experience and potential implications for urologic applications. J. Endourol. 2009; 23:743–610. Granberg CF, Frank I, Gettman MT. Transvesical NOTES: Current experience and potential implications for urologic applications. J Endourol. 2009;23:747–52.
10. Linke GR, Tarantino I, Hoetzel R, Warschkow R, Lange J, Lachat R, et al. Transvaginal rigid-hybrid NOTES cholecystectomy: Evaluation in routine clinical practice. Endoscopy. 2010; 42:571–5.