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Original article

Results of the First 100 Single Port Laparoscopic Cholecystectomies in a Secondary Care Hospital☆,☆☆

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ABSTRACT

Introduction: Despite the excellent results obtained with standard laparoscopic cholecystectomy, the efforts for minimizing the ports needed to reduce postoperative pain, for a quicker recovery and to improve the patient's cosmetics continue. The aim of this study is to report the results of the first 100 cases of single port laparoscopic cholecystectomy performed in a secondary care hospital.

Material and methods: Prospective, observational and unicentric study including 100 patients between January 2010 and April 2012. Inclusion criteria: symptomatic cholelythiasis patients over 16 years of age on whom a single port laparoscopic cholecystectomy was performed. Exclusion criteria: history of acute cholecystitis, pancreatitis or suspected choledocholithiasis, Endoscopic retrograde cholangiopancreatography, BMI>35 and previous laparotomies. We studied epidemiological, surgical and safety variables.

Results: The mean patient age was 39.89±11.5 years. The mean time of the surgical procedure was 67.94±25.5 min. There were 2 cases of postoperative complications: a non-infected seroma and a biliar leak. In 2 cases the use of an accessory trocar was needed. The mean hospital stay was 1.13±0.8 days. A total of 35% patients were included in the major ambulatory surgery program. The overall patient satisfaction survey rating showed a high level of cosmetic satisfaction in 100% of patients.

Conclusions: Single port laparoscopic cholecystectomy is a good technique when performed in selected cases by expert surgeons. It is feasible to include the single port laparoscopic cholecystectomy in a major ambulatory surgery program. We have not had serious complications. There is a high cosmetic satisfaction index with this technique.

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Resultados de las 100 primeras colecistectomías por puerto único en un hospital de segundo nivel

Palabras clave:
Colecistectomía por puerto único
Incisión umbilical única
Cirugía mayor ambulatoria
Acceso transumbilical

RESUMEN

Introducción: Aunque los resultados de la colecistectomía laparoscópica estándar son excelentes, se continúa intentando minimizar el número de puertos con el objeto de disminuir el dolor postoperatorio, conseguir una recuperación más temprana y mejorar el resultado estético del paciente. El objetivo de este estudio es presentar los resultados de los primeros 100 casos de colecistectomía por puerto único practicados en un hospital de segundo nivel.
Material y métodos: Estudio prospectivo, observacional, unicéntrico. Se intervino a 100 pacientes entre enero de 2010 y abril de 2012. Criterios de inclusión: pacientes mayores de 16 años con colelitiasis sintomática operados por colecistectomía simple mediante incisión umbilical única. Criterios de exclusión: antecedentes de colecistitis aguda, colangiopancreatografía retrógrada endoscópica, pancreatitis o sospecha de coledocolitiasis, IMC>35 y laparotomías previas. Se estudiaron distintas variables epidemiológicas, quirúrgicas y de seguridad.
Resultados: La edad media de los pacientes fue de 39,89±11,5 años. El tiempo quirúrgico medio fue de 67,94±25,5 min. Presentaron complicaciones postoperatorias 2 pacientes: seroma y fuga biliar. En 2 casos fue necesaria la utilización de trocar accesorio. La estancia media fue de 1,13±0,8 días. El 35% de los pacientes fueron tratados en régimen de cirugía mayor ambulatoria. Todos los pacientes se mostraron muy satisfechos con el resultado estético.
Conclusiones: La colecistectomía mediante incisión umbilical única es una buena técnica cuando se utiliza en casos seleccionados y por cirujanos expertos. Puede facilitar la práctica de la colecistectomía en régimen ambulatorio. No se han presentado complicaciones graves. El índice de satisfacción estética es muy elevado.

Introduction

Although standard laparoscopic cholecystectomy is the method of choice for the treatment of symptomatic cholelithiasis, new technological advances attempt to reduce the number of ports necessary in order to minimize postoperative pain, achieve earlier recovery and improve esthetic results.

During recent years, devices and instruments have been developed for single-port umbilical laparoscopic access. With this access, cholecystectomy can be safely performed through the navel, while leaving a scar that is practically invisible.

It is important to mention that, in addition to improving esthetic results, the aim is to improve postoperative recovery and make it possible to carry out cholecystectomy in a major outpatient surgery (MOS) program.

The objective of this study is to present the results obtained from the first 100 cases of single-port cholecystectomy (SPC) at a secondary-level hospital.

Material and Methods

Between January 2010 and April 2012, a total of 100 patients underwent cholecystectomy at our hospital using the single-port umbilical access. The procedure was done exclusively by 3 surgeons with large experience in conventional laparoscopic cholecystectomy.

We designed a descriptive, prospective, observational, single-center study. For the case reviews, data collection and statistical analysis, a Microsoft® Access 2007 database and the SPSS v16 program were used. All the case data were sent and included in the National Single-Incision Surgery Registry (in Spanish, *RNCIU*), an initiative promoted by the Endoscopic Surgery section of the Spanish Association of Surgeons (*AEC*), whose aim is to study the level of implementation of these techniques as well as the main clinical, technological and technical aspects related with their use.

Inclusion criteria were: patients over the age of 16 years with symptomatic cholelithiasis, diagnosed by ultrasound, that underwent umbilical SPC.

Exclusion criteria were defined as: patients with clinical history of acute cholecystitis, patients who had previously undergone endoscopic retrograde cholangiopancreatography, history of pancreatitis or suspicion of choledocholithiasis, a body mass index greater than 35 and a history of previous laparotomies.

Patients were informed about the procedure and gave their signed consent.

The epidemiological variables studied were: patient age and sex, American Society of Anesthesiologists (ASA) classification and body mass index. As for the surgical variables, we studied surgical time, hospital stay, postoperative complications, the use of accessory trocars and the number of conversions to open surgery, mortality and esthetic satisfaction.