



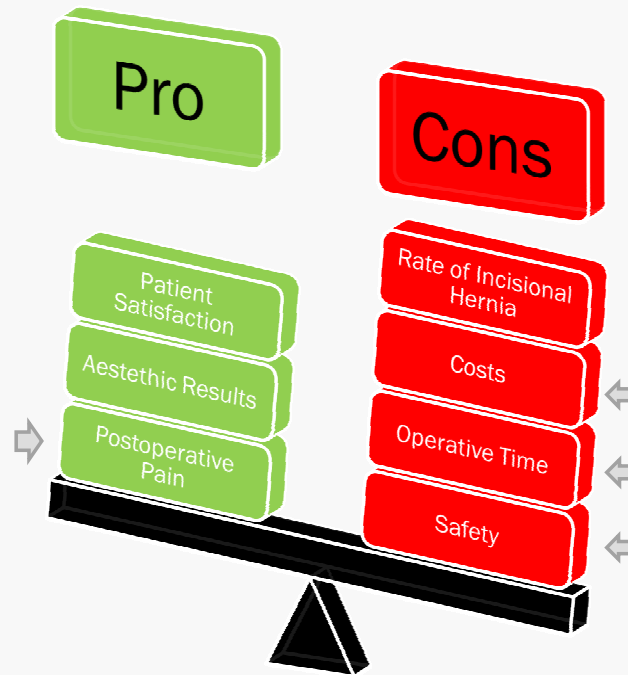
LAPAROSCOPIC SINGLE-PORT VERSUS TRADITIONAL MULTI-PORT LAPAROSCOPIC CHOLECYSTECTOMY.
A COMPARATIVE STUDY ON CLINICAL OUTCOMES
AND COSTS.

Case Controlled Study

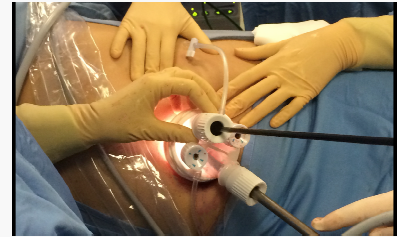
Marco Casaccia, MD, Denise Palombo, MD, Rosario Fornaro, Andrea Razzore, MD,
Fabio Gallo[#], MD, Domenico Soriero, MD and Marco Frascio, MD

Surgical Clinic Unit II
Department of Surgical Sciences and Integrated Diagnostics (DISC)
Genoa University, Italy

[#] Section of Biostatistics
Department of Health Sciences (DISSAL)
Genoa University, Italy



Materials and Methods



- ✓ **40** single-port laparoscopic cholecystectomy(SPLC) prospective database
- ✓ **40** conventional 4-port laparoscopic cholecystectomy (4PLC) Control group
- ✓ From October 2016 to May 2017
- ✓ Same experienced surgeon
- ✓ Acute cholecystitis (AC) and chronic cholecystitis (CC) were included

TABLE 1. Characteristics of patients and postoperative results grouped for laparoscopic procedure.

Characteristic	SPLC (n = 40)	4PLC (n = 40)	p-value
Sex, F/M	21/19	18/22	0.502
Age, years	55.7(13)	59.9(15)	0.199
BMI, kg/m ²	27.2(5)	27(5.3)	0.846
Associated co-morbidities, patients (%)	23(57.5)	30(75)	0.097
Duration of surgery, min	86.8 (32.9)	64.5(22.2)	<0,001
Trocar addition, n	1	0	0.999
Surgery conversion, n	0	0	-
Associated operation, n	2	1	0.999
Abdominal drain positioning	1	10	0.003
VAS at 4 hrs.	1.69(1.8)	1.68(1.8)	0.967
VAS at 24 hrs.	1.59(2.1)	1.23(1.8)	0.413
Pain medications, patients (%)	35(87.5)	32(80)	0.227
Paracetamol, g/d,	2.5(1.7)	2.1(1.5)	0.265
Ketorolac, mg/d,	11.6(24.4)	7.5(18.9)	0.405
Hospital stay	1.9(0.9)	2.3(1.2)	0.101
Morbidity, patients (%)	5(12.5)	1(2.5)	0.200
Hystological Diagnosis (1/2/3) *	6/9/25	2/2/36	0.019

Values are meant as median (SD) unless indicated otherwise.

SPLC, single-port laparoscopic cholecystectomy; 4PLC; 4-port laparoscopic cholecystectomy; BMI, body-mass index; VAS, visual analogue scale.

*Diagnosis, 1 symptomatic gallbladder stones, 2 acute cholecystitis, 3 chronic cholecystitis.

Safety

And... FEASIBILITY

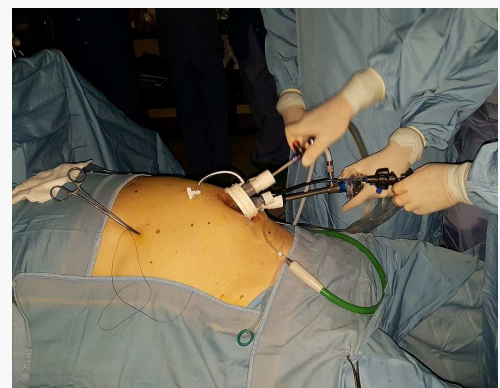
- ✓ No surgical conversion
- ✓ One case (2.5%) of trocar addition
- ✓ Blood loss was absent in 34 (85%) patients
- ✓ Postoperative complication rates were 12.5% in SPLC group and 2.5% in 4PLC group (p=0.200)

Operative Time

Duration of surgery, min	86.8 (32.9)	64.5(22.2)	<0,001
--------------------------	-------------	------------	--------

- Related to diagnosis in SPLC group

SGS (80 min)
CC (87.5 min)
AC (105 min)



- Related to initial learning curve
in our series we observed a 10-minute average decrease in operative time in the last 15 cases of SPLC.

Postoperative Pain

According to VAS evaluation, the pain profile was similar, but SPLC group was associated with more analgesics requirement.

Median length of hospitalization between the SPLC and 4PLC groups, a statistically significant advantage ($P=0,04$) in SPLC Group

Costs



TABLE 2. Costs evaluation per single procedure and hospitalization

Characteristic	SPLC (n = 40)	4PLC (n = 40)	p-value
Disposable OR equipment costs, euro	212.17 (10.9)	380.25 (0)	<0.001
Total OR costs* (equipment, time), euro	929 (265)	916.52 (184)	0.807
PO care costs*, euro	888.75 (426.1)	1068.75 (545.8)	0.104
TH costs*, euro	1811.76 (562.1)	1989.87 (677.7)	0.204

Values are expressed as mean (SD).

SPLC, single-port laparoscopic cholecystectomy; 4PLC; 4-port laparoscopic cholecystectomy; OR, operating room; PO, post-operative; TH, total hospitalization.

Se è vero che porsi delle domande ci spinge a trovare sempre nuove risposte...

Rate of Incisional Hernia

Aesthetic Results

Patient Satisfaction