CHUNG-ANG UNIVERSITY HEALTHCARE SYSTEM

Clinical differences between young & elder population underwent laparoscopic cholecystectomy

Yoo Shin Choi, Suk Won Suh, Byung Kwan Park and Seung Eun Lee
Department of Surgery, Chung-Ang University College of Medicine, Seoul, Korea

INTRODUCTION

- Laparoscopic Cholecystectomy (LC)
  - ➢ one of the most common surgical procedures in adult
  - ➢ But, in young population - relatively uncommon
- No. of LC in Young: ↑ over past two decades
  due to - GB ds. is evolving
  - increasing frequency of GB disease
- Aim: to evaluate the clinical differences between young and elder population underwent LC

METHODS

- January 2006 – December 2015, at Chung-Ang University Hospital
- Indication: GB benign ds. (malignant ds. were excluded)
- Categorized into two groups: YOUNG vs. ELDER
- Definition
  - ➢ Young population: 10 – 24 (by UNICEF/WHO criteria)
  - ➢ Expectation of choledocholithiasis: CBD stone confirmed by radiology /passed CBD stone by radiology or lab. data
- Retrospectively reviewed
  - ➢ The patient's characteristics, pre-operative lab & radiologic data and stones (minimum size, multiplicity)

RESULTS

	YOUNG N = 98	ELDER N = 1,744	p value
Age (years)	21.2 (10–24)	52.9 (25–91)	<0.001
Sex (male): n (%)	31 (31.6%)	930 (48.5%)	0.001
BMI (kg/m2)	24.3 ± 6.2	24.8 ± 3.6	0.511
Smoking: n (%)	16 (16.3%)	427 (22.3%)	0.166
DM: n (%)	3 (3.1%)	241 (12.6%)	0.005
ASA (3 or 4)	2 (2.0%)	394 (20.6%)	0.000
Diagnosis			
Chronic cholecystitis: n (%)	55 (56.1%)	910 (47.5%)	
Acute cholecystitis: n (%)	40 (40.8%)	824 (43.0%)	
GB polyp: n (%)	3 (3.1%)	183 (9.5%)	0.055
WBC: (/mm³)	7,123 ± 2,845	8,234 ± 12,851	0.397
CRP (mg/dL)	10.9 ± 30.3	58.6 ± 1234.7	0.702
Total bilirubin (mg/dL)	1.3 ± 1.4	1.0 ± 1.5	0.086
AST (IU/L)	102.6 ± 177.3	54.9 ± 128.2	0.010
ALT (IU/L)	127.4 ± 225.0	62.4 ± 114.7	0.005
ALP (IU/L)	242.7 ± 165.5	252.1 ± 200.6	0.648
Amylase (IU/L)	88.5 ± 172.4	88.0 ± 209.3	0.635
Acute pancreatitis: n (%)	5 (5.1%)	62 (3.2%)	0.314
Acute cholecystitis: n (%)	36 (36.7%)	611 (31.9%)	0.315
Grade I: n (%)	32 (32.7%)	494 (25.8%)	
Grade II: n (%)	4 (4.1%)	101 (5.3%)	
Grade III: n (%)		17 (0.9%)	0.372
Periampullary diverticulum: n (%)	1 (1.0%)	50 (2.6%)	0.329
GB stone size (minimal, cm)	0.67 ± 0.63	0.79 ± 1.1	0.324
Multiple GB stone: n (%)	65 (66.3%)	1268 (66.1%)	0.696
Expectation of choledocholithiasis: n (%)	23 (23.5%)	248 (12.9%)	0.003
Preoperative CBD diameter (mm)	4.8 ± 2.6	6.5 ± 3.1	<0.001
Preoperative CBD angulations (.)	122.6 ± 39.7	128.8 ± 39.1	0.132

CONCLUSION

- In our study, young population had more expectation of choledocholithiasis than elder during preoperative period.
- Therefore, young patients require special attention for the possibility of choledocholithiasis in preoperative period.