



C-REACTIVE PROTEIN –TO-ALBUMIN RATIO TO PREDICT DIFFICULT CHOLECYSTECTOMY IN ACUTE CHOLECYSTITIS.

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ABSTRACT For definitive diagnosis of acute cholecystitis, it must include the local, systemic and radiological findings. There are various risk factors of difficult cholecystectomy defined in Tokyo guidelines 2018. This study aims to evaluate the use of inflammatory marker CRP to albumin ratio to predict difficult cholecystectomy in acute cholecystitis. The technical difficulties of cholecystectomy vary depending on the degree of inflammation and fibrotic changes in the gallbladder. These difficulties lead to conversion of laparoscopic to open cholecystectomy in 1.8-15.0% of cases increasing perioperative times, complication rates, and the length of hospital stay. Risk factors of difficult cholecystectomy include male sex, older age, diabetes mellitus, elevated C-reactive protein (CRP) levels, hypoalbuminaemia, elevated white blood cell count, a history of upper abdominal surgery, and the experience of the Surgeon. CRP and albumin levels are associated with the severity of acute cholecystitis, according to the Tokyo Guidelines 2018. Low albumin levels indicate a weakened immune system, malnutrition, and poor prognosis. CRP and albumin levels can predict the severity of acute cholecystitis. The pre-operative CRP-to albumin ratio (CAR) was established as a novel inflammation-based prognostic score to identify patients with severe disease on admission. Ranzani et al reported that pre-operative CAR was associated with poor prognosis in patients with sepsis.

KEYWORDS :

RESULTS

The following conditions include difficult cholecystectomy inability to clearly define the anatomy of Calot's triangle, due to local inflammation, severe adhesion around the gallbladder, bleeding from the cystic artery or liver bed, common bile duct injury. There was no injury to major vessels or perioperative death.

CHARACTERISTICS	ACUTE CHOLECYSTITIS	DIFFICULT CHOLECYSTECTOMY	P-value
SEX			
Male	30	20	0.477
Female	20	18	
Mean AGE (years)	49.1 +/- 1.5	54.4 +/- 2.5	0.010
Mean BMI (Kg/m ²)	24.9 +/- 4.1	25.2 +/- 5.7	0.774
Previous abdominal surgery	5	3	0.733
Body temperature	37 +/- 1.02	38.4 +/- 1.04	0.200
Murphy's sign	43	33	0.909
Interval between symptom onset and surgery (hours)	54.5 +/- 12.6	120.2 +/- 16.2	0.001

USG findings	Acute Cholecystitis	Difficult cholecystectomy
Gallbladder wall thickness(>4mm)	30	22
Cholecystolithiasis incarceration	15	9
Pericholecystic fluid	20	10

SEVERITY GRADE TOKYO GUIDELINES	ACUTE CHOLECYSTITIS	DIFFICULT CHOLECYSTECTOMY
1	30	20
2	16	7
3	4	1

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