

It's Not What You Think: Diagnostic Discordance Across Clinical Timepoints and Associated Outcomes in Acute Versus Chronic Cholecystitis

Christine Isabella Bent, BS^{1,2}; Patrick McGillen, MD MS²; Edward Rodriguez, MD²; Sindhu Daggupati, BS^{1,2}; Monica Wong, MS²; Anaar Siletz, MD PhD²; Kazuhide Matsushima, MD²; Kenji Inaba, MD²; Hector Ramos, MD³; Matthew Martin, MD²

¹ Keck School of Medicine of USC Los Angeles, CA

² Department of Acute Care Surgery, Los Angeles General Medical Center

³ Department of Hepatobiliary Surgery, Los Angeles General Medical Center

Introduction

- Acute cholecystitis (AC) is the most commonly indication for urgent cholecystectomy.
- Discordance frequently exists between preoperative, postoperative, and final pathologic diagnoses of AC versus chronic cholecystitis (CC).
- The true incidence and clinical implications of diagnostic discordance is unclear.

Objective

This study aimed to evaluate the incidence of diagnostic discordance between acute and chronic cholecystitis.

Methods

- Retrospective review of 302 patients undergoing urgent or semi-elective laparoscopic cholecystectomy over one year.
- Patients were stratified by final pathology into: Acute cholecystitis (AC) (n = 120)
- Chronic cholecystitis (CC) (n = 156)
- Preoperative imaging diagnoses, surgeon-reported postoperative diagnoses, and final pathology were compared within and between groups.
- Clinical outcomes were analyzed comparing AC versus CC cohorts.

Results

Figure 1: Variation in Diagnosis Across Clinical Timepoints of Cholecystitis

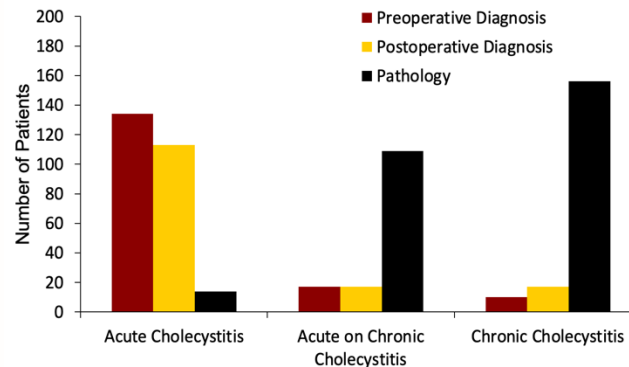


Figure 2: Imaging and Clinical Features Associated with AC and CC

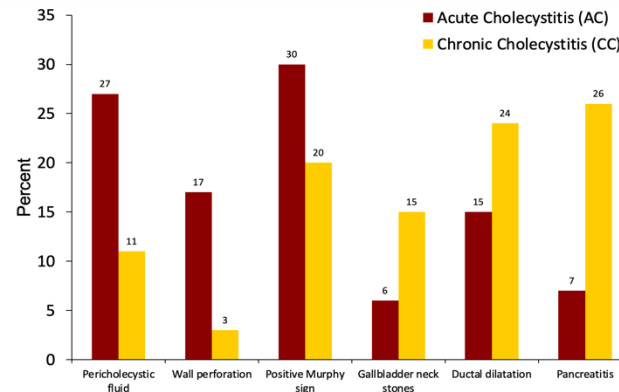
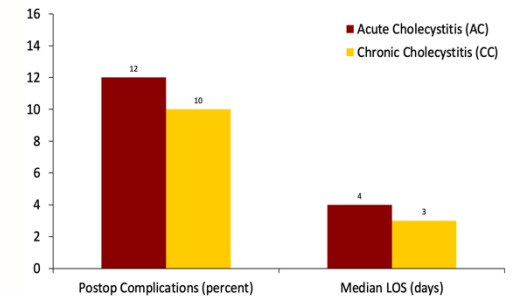


Figure 3: Comparison of Postoperative Complications and Hospital Length of Stay



Discussion

- Significant diagnostic discordance exists between clinical and pathologic assessments in patients undergoing urgent cholecystectomy.
- Marked differences are observed between preoperative/intraoperative diagnoses and final pathologic diagnoses.
- CC demonstrates distinct imaging characteristics and disease features compared to AC
- CC is associated with different clinical outcomes compared to AC, which has not been adequately studied or well characterized.
- Implementation of standardized diagnostic criteria and clinical pathways may improve diagnostic accuracy and optimize surgical planning.