

Is CT imaging sufficient to diagnose Acute Cholecystitis?

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Introduction

Calculus Acute cholecystitis (AC) is a common surgical presentation. Treatment for AC is cholecystectomy. Ultrasonography (US) has long been the first-line diagnostic test but is not always readily available. Computed Tomography (CT) can provide a diagnosis but its sensitivity for detecting gallstones (GS) is below that of US.

Aims

The aim of this study was to determine the AC diagnostic accuracy of CT compared to US.

Methods

One hundred and sixty patients admitted with radiological AC proceeded to cholecystectomy. Comparison was made between patients who had CT diagnosis only and those who subsequently had US diagnosis. US imaging was excluded. Radiological diagnosis was correlated with operative and histological findings.

Results

157 patients had CT diagnosis of AC. Three patients developed complications at operation and were excluded. 87 subsequently had US imaging, with a positive predictive value of 55%. Sixty patients proceeded to operation with CT diagnosis only. Operation was 100% correlated with the diagnosis. Sensitivity of CT was superior to US in diagnostic value of AC.

Conclusions

CT appears to be a superior modality to diagnose AC over US. While US has superior sensitivity to detect GS, CT is sufficient for AC diagnosis. Over 90% of AC is calculus therefore demonstrating them on US is not necessary. Given that CT is more widely and easily available, reliance on its diagnosis appears safe and cost effective. CT has additional benefits such as providing superior anatomical definition to exclude other pathology.

anticoagulant or antiplatelets tended to be delayed whereas younger stable or stabilised patients had urgent endoscopy. The discrepancy with clinical requirement may be an inappropriate application of established guideline and use of resource.

Biography

Bawar Saeed is a General Surgery Registrar (trainee medical practitioner) for Queensland Health in Australia. He is a generally registered medical practitioner with the Australian Health Practitioner Regulation Agency (AHPRA). He has a Master in Traumatology specializing in Trauma Surgery from The University of Newcastle and Diploma of Surgical Sciences from Edinburgh University. He graduated from Bond University Australia with a MBBS and has been practicing and trained within Australian hospitals for the past 9 years with highly varied multidisciplinary hospital-based experience with 1.5 years as a Cardiothoracic Surgery Registrar and 3.5 years as a General Surgery Registrar.