CLINICAL NEWS | DIGITAL X-RAY

AI detects tuberculosis on photos of chest x-rays

scarce, the authors explained. Yet these studies have focused on the analysis of digital images, which limits the technology's applicability in settings where chest x-rays are available only in analog form, the researchers noted.

The group aimed to assess the diagnostic value of an AI model (qXR, Qure.ai) for TB using film x-rays photographed by mobile phones or digital cameras. The analysis used 498 images from patients seeking help for TB symptoms between January 2017 and March 2018 at health centers in Ethiopia and Guinea-Bissau who had a final

Heidelberg pH capsule (Heidelberg Medical)	21×8 (approx.)
IntelliCap (Medimetrics)	26.7×11 (approx.)

[1] PillCam SB 3 Capsule Endoscopy System. Medtronic. Published 2019. Accessed December 1, 2025. medtronic.com/en-us/healthcare-professionals/products/digestive-gastrointestinal/capsule-endoscopy/endoscopy-systems/pillcam-sb-3-capsule-endoscopy-system.html

[2] OMOM Capsule Endoscopy Manufacturer, High Definition Endoscope System Camera. Jinshan Group. Published 2020. Accessed December 1, 2025. jinshangroup.com/product/omom-hd-capsule-endoscopy-camera/

[3] Kim JE, Kim ER, Park JJ, et al. Comparative study of MiroCam MC2000 and PillCam SB3 in detecting small bowel bleeding: a multicenter prospective randomized crossover study. Gut Liver. 2025;19(4):569-578.

[4] About CapsoCam Plus. Capsovision. Published 2025. Accessed December 1, 2025. capsovision.com/capsocam-plus/

Original Investigation

Diagnostic Efficiency of Automatic Breast Ultrasound and Handheld Breast Ultrasound as Second Look Ultrasound Techniques for Suspicious Lesions Detected on Breast MRI

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ORIGINAL ARTICLE

Retrospective Cohort Study

Hepatic enhancement and signal intensity analysis on magnetic resonance imaging as prognostic biomarkers in advanced chronic liver disease

Grade C, Grade D

P-Reviewer: Giangregorio F, Assistant Professor, Chief Physician, Italy; Wang CB, PhD, China

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Abstract

BACKGROUND

Advanced chronic liver disease is a progressive condition associated with high mor-bidity and mortality, leading to complications such as decompensation and hepatocellular carcinoma. Although prognostic scores such as the Child-Pugh score (which combines clinical assessment and laboratory parameters) and laboratory-based models, including Model for End-Stage Liver Disease (MELD) 3.0, albumin-bilirubin (ALBI) grade, and fibrosis-4 (FIB-4), are often used, their accuracy is limited by subjective assessments and variability in laboratory results. The Functional Liver Imaging Score (FLIS), a semi-quantitative magnetic resonance imaging (MRI) measure of liver function, may also be influenced by observer variability. This emphasizes the need for objective, reproducible tools to improve risk stratification and support treatment decision-making.

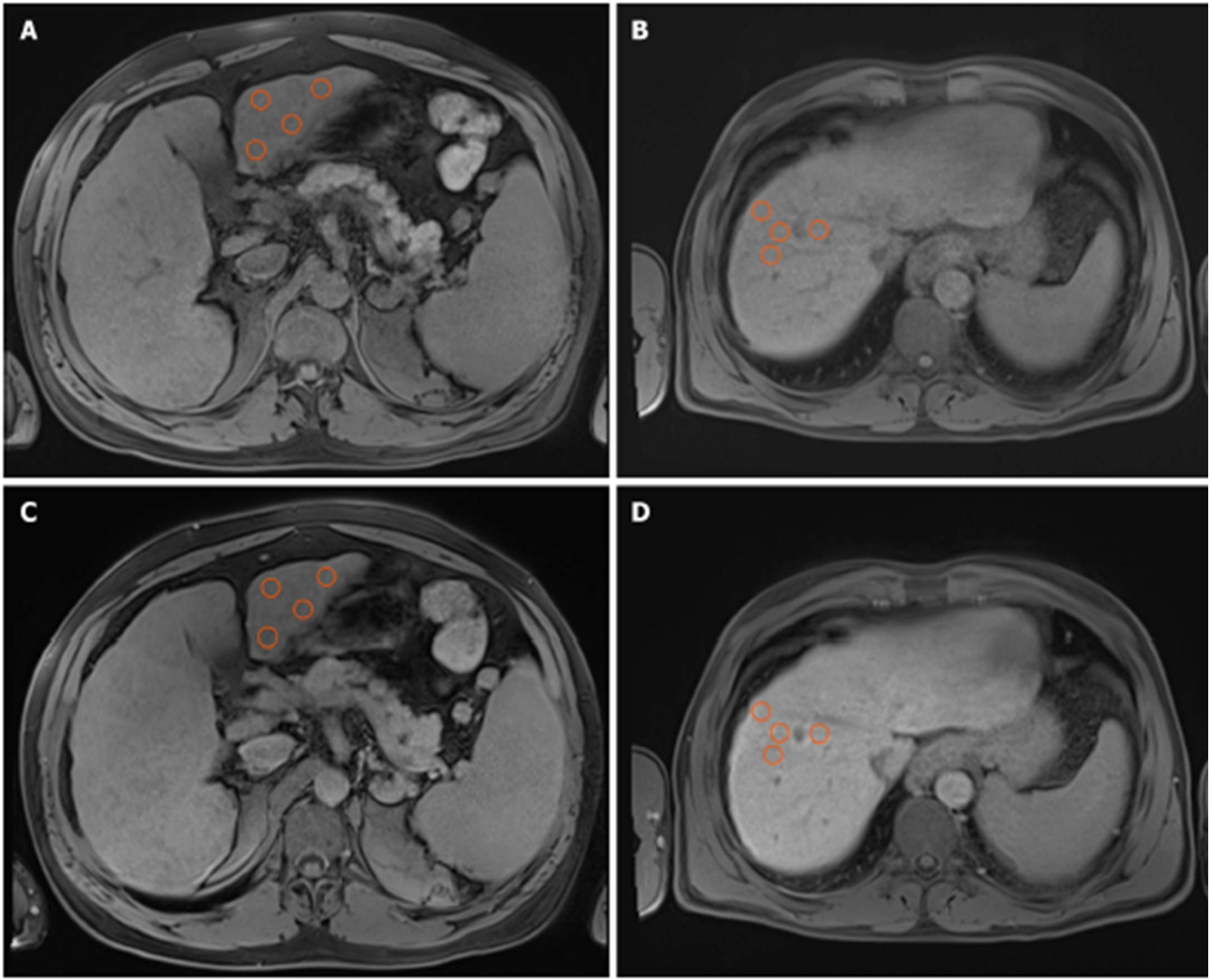
AIM

To evaluate the prognostic value of hepatic enhancement (HE) and signal intensity measured by gadoxetate disodium-enhanced MRI.

METHODS

In this retrospective cohort study, 100 patients with advanced chronic liver disease underwent gadoxetate-enhanced MRI. HE and signal intensity were measured quantitatively in liver segments III, VI, VIII, and the caudate lobe, and global values were calculated by averaging segmental measurements. Correlations were assessed with FLIS, Child-Pugh, MELD 3.0, ALBI, FIB-4, liver stiffness (FibroScan), and hepatic venous pressure gradient.

Core Tip: This study investigated whether quantitative gadoxetate-enhanced magnetic resonance imaging can enhance prognostic assessment in patients with advanced chronic liver disease. Among 100 patients, hepatic enhancement (HE) and signal intensity were measured segmentally and globally. Global HE correlated strongly with Functional Liver Imaging Score, clinicobiological scores, liver stiffness, and portal pressure. Notably, lower HE independently predicted hepatic decompensation and mortality, demonstrating good diagnostic accuracy. These results suggest that HE provides an objective and reproducible biomarker that may complement conventional scoring systems, facilitating the earlier identification of high-risk patients and supporting personalized management strategies in clinical hepatology.


A
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CONCLUSION

Our findings demonstrate that HE on gadoxetate-enhanced MRI, particularly in segment VI,

clinically significant biomarker of liver function in ACLD. HE correlates with established p
stiffness, predicts adverse outcomes, and improves short-term mortality risk assessment in rec
curve analyses. These results position HE as a complementary biomarker to structural im
tography, and biochemical scores, including MELD 3.0. They support the use of HE as a sens
marker that complements traditional risk assessment methods and signals a shift from struct
aligning with the principles of precision medicine. The prognostic ability of segment VI HE
future multimodal evaluation strategies, especially for guiding treatment decisions in pati
function or those preparing for surgery. Considering its spatial resolution and robust pathopl
facilitate the early detection of patients with an elevated risk of hepatic decompensation or n
prompt and individualized interventions. Prospective multicenter investigations integrating AI
techniques are essential to verify these findings and to delineate the clinical applicability of H
practice.

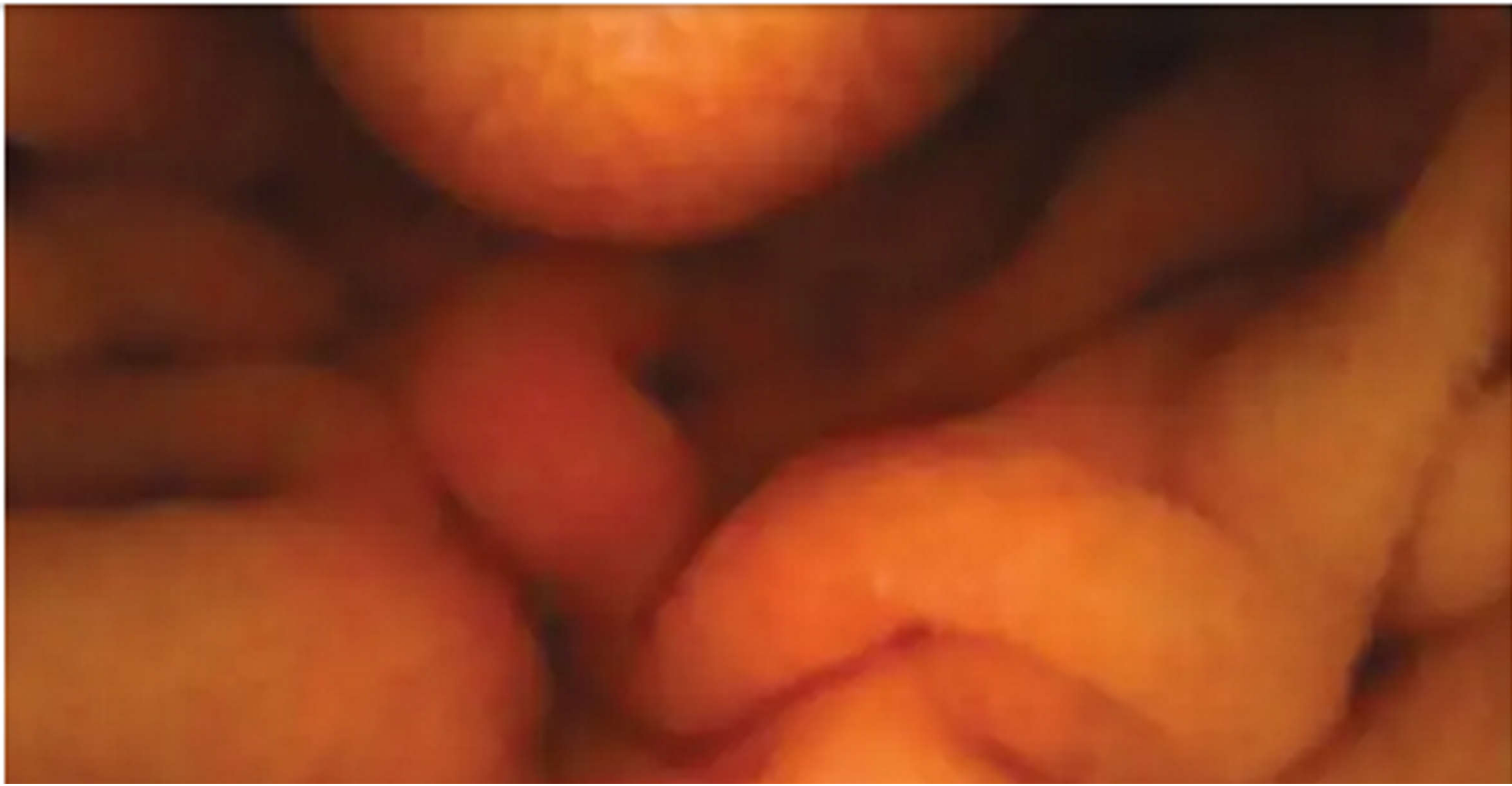
Review Articles

JANUARY 9, 2026

Capsule Endoscopy

The concept of WCE was first developed in Israel in 1981 by Gavriel Iddan, a military engineer, and Eitan Scapa, MD, a gastroenterologist.[1-3] Meanwhile, in the United Kingdom, gastroenterologist Paul Swain, MD, succeeded in sending images from a pig's stomach to a monitor[2] and was the first human to swallow a capsule endoscope. These innovati the concept of "swallowing the surgeon," proposed by Nobel Prize–winning theoretical physicist Richard Feynman decades earlier, closer to reality. WCE emerged as a solution the small bowel completely, something traditional fiberoptic endoscopy could not do.[2]

WCE, originally known as the PillCam and manufactured by Given Imaging, received its first FDA approval in 2001.[4] The PillCam SB1 measured 26×11 mm, had an 8-hour batter provided images with a resolution of 256×256 pixels.[1,3] This capsule's success quickly broadened applications of WCE from obscure GI bleeding to include assessment of Cro celiac disease, small-bowel tumors (SBTs), and iron deficiency anemia.[5] Later innovations resulted in colon capsule endoscopy (CCE) and pan-enteric capsules, allowing visua both the small intestine and colon.[6,7] As demand for noninvasive diagnostic options continues to grow, capsule endoscopy has evolved to include potential new uses, including



Prednisone for chronic active liver disease: pharmacokinetics, including conversion to prednisolone

Corticosteroids in severe alcohol-associated hepatitis. Not so fast: A systematic review of randomized controlled trials

Shi, Michael A.[1] Pungpapong, Prissana[1] Comer, Lauren J. H.[1]

steroid arm and the other half in the comparison arm. Infections, gastrointestinal bleeds, and renal impairment were the most frequently reported adverse events. Most infections occurred within the first month of the study. A 2-week steroid taper was the most frequently reported regimen.

Conclusions:

We recommend taking up to a week to systematically and thoroughly evaluate patients before initiating steroids, and vigilant monitoring in the first month of treatment. We also recommend the lowest possible steroid exposure with a 2-week steroid taper and close outpatient follow-up.

Corticosteroids in severe alcohol-associated hepatitis. Not so fast: A systematic review of randomized controlled trials

THE END