

ID: 155

Scientific Abstract

Topics: Abdominal Imaging/GI Tract, Academics

Keywords: contrast enhanced ultrasound, CEUS, MRI, diagnostic radiology, Liver, Haemangiomas

MRI or CEUS; Who Is The Front-Runner In Characterising Hepatic Haemangiomas?

Arthikaa Thavakumar, Azhar Ali, Taha Khan, Sudeep Biswas, Adnan Kabeer, Sabeeh Syed, Ashwin Suri, Nazia Malik, Ruhaid Khurram, Noreen Rasheed, Sami Khan, Imran Syed

Basildon and Thurrock University Hospital NHS Foundation Trust, United Kingdom

Objectives: Hepatic haemangiomas are benign liver parenchymal lesions that are typically incidentally identified on radiological imaging. This study aims to comparatively assess the diagnostic use of magnetic resonance imaging (MRI) and contrast enhanced ultrasound (CEUS) in accurately characterising these lesions.

Methods: A retrospective analysis was conducted on all patients diagnosed with haemangiomas who underwent both an MRI and CEUS scan over a 5-year period. The two imaging modalities were then compared using three variables: location, size and diagnosis of the lesions specified on the reports.

Results: Out of a cohort of 79 patients, 17 met the inclusion criteria; male 2 (12%), female 15 (88%). A total of 32 lesions were identified and the following diagnoses made were made on MRI and CEUS respectively: haemangioma (n=20, 62.5% vs n=28, 87.5%) and indeterminate or cyst (n=12, 37.5% vs n=4, 12.5%). Subcategory analysis of haemangiomas showed the following in MRI and CEUS respectively: classic haemangioma (n=18, vs n=22,) atypical haemangioma (n=0, vs n=5) and flash haemangioma (n=2, vs n=1). Size was reported in 29 (90.6%) of MRI lesions but only in 16 (48.5%) of CEUS lesions. Furthermore, locations were reported in 29 (90.6%) MRI lesions and only in 19 (57.6%) lesions on CEUS.

Conclusion: Our limited study demonstrates a propensity for better detection and de-differentiation of haemangiomas on CEUS in comparison to MRI. However, reports on MRI are still superior in detailing characteristics of size and location in comparison to CEUS.