

Note:

Per the latest editor's review on **June 24, 2018**, all of editors' comments have been addressed point by point in the main text of the manuscript, and all revision have been highlighted as required.

In addition to the required revisions as the editor suggested, we added an extra Figure 9 in the Pediatric part, to demonstrate the application of MRI in Pediatric NAFLD, and a reprint permission is also attached.

Reviewer #1:

Comment: The review is interesting and well written. This manuscript provides a comprehensive review of the current status of imaging methods for non-alcoholic fatty liver disease in adulthood. I have only minor suggestions: I suggest to add the following reference in the text when you describe the multi-hit hypothesis in the NAFLD pathophysiology: World J Hepatol. 2015 Jun 18;7(11):1439-43. doi: 10.4254/wjh.v7.i11.1439. There are a lot of information about the NAFLD diagnostic tools that can be alternatively used to liver biopsy in adulthood but there is no mention to the techniques applicable in pediatric age. Please add a short paragraph about the state-of-the-art about diagnostic tools that can be alternatively used to liver biopsy in childhood.

Response: Thanks for the suggestion. The recommended paper has been added to the multi-hit part in the paper (*Marzuillo P, Grandone A, Perrone L, Miraglia Del Giudice E. Understanding the pathophysiological mechanisms in the pediatric non-alcoholic fatty liver disease: The role of genetics. World J Hepatol. 2015;7(11):1439-43.*). Excellent point to add in the imaging value in pediatric NAFLD. A paragraph has been added to briefly review the role of imaging in pediatric NAFLD. (Page 17)

Reviewer #2:

This is interesting and well written overview on the hot topic of imaging methods for NAFLD. The manuscript comprehensively reviews diagnostic performance of current imaging methods as supported by the significant number of the contemporary references.

Comment: There are only two minor comments I would like to be addressed by the authors: 1) Why do the authors differentiate SWE from the ARFI? ARFI is a physical principle used to generate shear waves in the tissue of interest, and therefore all SWE methods except TE use ARFI to generate elastogram. Please see EFSUMB guidelines on US elastography. If the authors want to specifically address diagnostic performance of a certain SWE method they should use pSWE or 2DSWE with the commercial name added in order to avoid confusion.

Response: Thank you for this comment. We have addressed this issue by changing their names to 2D-SWE and point SWE, to show their values in NAFLD evaluation. A sentence has been added to further specify the definition of point SWE: "Acoustic Radiation Force Impulse (ARFI) imaging is a technique of point shear wave elastography, which refers to the use of acoustic energy to create shear waves in tissue and quantitatively measures the shear wave velocity as a marker of elasticity." (Page 8)

Comment: 2) The conclusion is very general. I would suggest to avoid formulation: "In this paper, we review the current status....", and to make more straightforward conclusion which may be useful for clinical practice of a reader.

Response: Thanks for the suggestion. The conclusion has been revised as the following:
"Patients with NAFLD are at risk of steatohepatitis and progressive liver fibrosis culminating in cirrhosis, typically over a period of decades. Early diagnosis and risk stratification are essential for effective management. Current imaging methods such as ultrasound, CT, and MRI have demonstrated their values to serve as noninvasive imaging biomarkers to evaluate NAFLD progression, but they are still relatively limited in the detection of inflammation (NASH), which is more important than steatosis in terms of its high risk for fibrosis, cirrhosis, and HCC. Detection of NASH by imaging remains the future direction in NAFLD."