

MRI: An accurate method to evaluate iron overload

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A research team from Iran investigated the accuracy of T2*-weighted magnetic resonance imaging (MRI T2*) in the evaluation of iron overload in beta-thalassemia major patients. The study showed that MRI T2* is a non-invasive, safe and reliable method for detecting iron load in patients with iron overload.

Iron overload is a common and serious problem in thalassemic major patients. As iron accumulation is toxic in the body's tissues, accurate estimation of iron stores is of great importance in these patients to prevent iron overload by an appropriate iron chelating therapy. [Liver biopsy](#) is the gold standard for evaluating iron stores but it is an invasive method which is not easily repeatable in patients. Introduction of other more applicable methods seems to be necessary.

A research article published on January 28, 2011 in the [World Journal of Gastroenterology](#) addresses this question. The authors reported their experience of using T2*-weighted [magnetic resonance imaging](#) (MRI T2*) for determining iron overload in beta-thalassemic patients in Iran. They compared liver MRI T2* results in thalassemic patients with their liver biopsy results to determine if it is possible to substitute MRI T2* to assess iron overload in these patients.

The results indicated that the serum ferritin level is not a reliable method for estimating the level of [iron overload](#) in thalassemic patients. MRI T2* is a more accurate and non-invasive method which they recommend for measurement of iron load in these patients.

More information: Zamani F, Razmjou S, Akhlaghpour S, Eslami SM, Azarkeivan A, Amiri A. T2* magnetic resonance imaging of the liver in thalassemic patients in Iran. World J Gastroenterol 2011;17(4): 522-525. www.wjgnet.com/1007-9327/full/v17/i4/522.htm

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