Mild hepatic iron overload in dysmetabolic hyperferritinemia: MRI may overestimate the liver iron concentration values

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Dear Editor,

It is with interest that we read the article “Dysmetabolic hyperferritinemia is associated with normal transferrin saturation, mild hepatic iron overload, and elevated hepcidin” by Chen et al. [1]. This paper claims that seven of the ten cases presented in the study had “mild” hepatic overload, with a median of 75 $\mu\text{mol/g}$, determined by MRI [2]. The results state that mild hepatic iron overload is defined as liver iron concentration (LIC) greater than 35 $\mu\text{mol/g}$ and less than 150 $\mu\text{mol/g}$. The median value for the seven cases was 75 $\mu\text{mol/g}$, with a range of 40–120. Two patients had hepatic iron indexes of 1.9 and one, greater than 1.9. Is this “mild” liver iron overload? We would like to point out that normal iron concentration is between 10 and 36 $\mu\text{mol/g}$ [3]; high iron overload is universally considered to be in excess of 80 $\mu\text{mol/g}$ (in one study, above 71 $\mu\text{mol/g}$ [4]). The authors have used Gandon's MRI method [2] for LIC calculation. We recently demonstrated that this method has a tendency to overestimate LIC [5]. One must take care when labelling as “mild” a 120- $\mu\text{mol/g}$ LIC and explain why this is the case (the authors were using a method that tends to overestimate). When using a

validated method for LIC determination by MRI with a good correlation [6], there is no need to explain why an elevated value is considered as mild, because the value will be very similar to that obtained by liver biopsy.

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