Deferiprone is Superior to Deferasirox and Desferrioxamine in Cardiac Iron Overload

In response to a recent editorial published in Indian Pediatrics [1], I have following comments to offer.

The editorial addresses issues of cardiac iron overload in thalassemic patients and mentions that "Although quantitative liver iron measurement accurately guides the use of iron chelators, it may not reflect cumulative changes in cardiac iron. Thalassemics may have cardiac iron overload even at the time of a safe liver iron measurement". This is contradicted in the next paragraph quoting another reference as follows: "An increased risk of iron-induced cardiac disease is observed with liver iron concentration (LIC) values above 15 mg of iron per gram of dry weight of liver, and in patients with serum ferritin values above 2500 microgram/liter." There is new evidence to suggest that neither serum ferritin nor liver iron concentration correlate with cardiac iron, and therefore, T2* weighted cardiac magnetic resonance imaging is currently being considered as the gold standard for evaluating cardiac iron overload in thalassemics [2].

Additionally, reference 6 of the article is misquoted: the study by Pepe, *et al.* in Hematologica 2011 states clearly in its conclusion that "the cohort of patients treated with oral deferiprone showed less myocardial iron burden and better global systolic ventricular function compared to the patients treated with oral deferasirox or subcutaneous desferrioxamine." Moreover, the study was performed on 115 patients [3]. The author has quoted as follows: "Further, efficacy of available chelators on myocardial iron and biventricular function by quantitative MRI in 550 thalassemics concluded that oral deferasirox has better global systolic ventricular function compared to oral deferiprone and subcutaneous desferoxamine [1]". This is misleading to the readers of the journal.

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References

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- 3. Pepe A, Meloni A, Capra M, Cianciulli P, Prossomariti L, Malaventura C, *et al.* Deferasirox, deferiprone and desferrioxamine treatment in thalassemia major patients: cardiac iron and function comparison determined by quantitative cardiac magnetic resonance imaging. Haematologica. 2011;96:41-7.