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LETTER TO THE EDITOR

Re: Pregnancy Outcomes in Women with Homozygous Beta Thalassaemia

A single-centre experience from Oman

رد: نتائج الحمل في النساء اللواتي لديهن البيتا ثلاسيميا المتماثلة

تجربة مركز واحد من عمان

Sir,

I have two comments on the interesting study by Al-Riyami *et al*. published in the SQUMJ August 2014 issue.[1]

First, despite the small sample (n = 10) of studied pregnant women with homozygous beta thalassaemia (HBT), it was satisfying to read that all of them had conceived spontaneously, apart from one of the women with beta thalassaemia major (BTM) who had conceived using hormonal therapy.[1] The high rate of successful pregnancy outcomes (93%) observed among the studied HBT pregnant women is promising. The ability to have a family is an essential aspect of a patient's quality of life. Improvements in current treatments for BTM, especially in the management of iron deposits and the prolongation of survival, have resulted in a remarkable increase in pregnancies among thalassaemic women.[1] Pregnancy is now a real possibility for these patients. Although numerous complications can occur, vigilant monitoring by both experienced obstetricians and haematologists can lead to successful pregnancy outcomes, as was noted by Gulino *et al*.[2]

Second, Al-Riyami *et al*. stated in their study that all three women with BTM underwent counselling before their pregnancies and had achieved low serum ferritin (SF) levels (236–522 ng/mL) with extensive chelation therapy before conception.[1] Moreover, they mentioned that all three BTM women underwent T2* magnetic resonance imaging (MRI) before and soon after their pregnancy in order to determine iron status. All three patients, and in particular the first two patients, had increased liver iron loads during their pregnancies. The third patient had undergone chelation therapy in her third trimester. However, the cardiac iron status of all the three patients remained normal.[1] This observation is particularly interesting in view of the following two considerations. SF measurements are no longer believed to be precise in determining the iron content of body tissues. A moderate negative correlation was recently reported between SF and liver T2* MRI relaxation time (r = -0.535) and a weak negative correlation was found between SF and heart T2* MRI relaxation time (r = -0.361).[3] As a result, T2* MRI is the suggested method of evaluation of liver and heart iron content in order to more accurately evaluate haemosiderosis status in thalassaemic patients.[3] Moreover, T2* MRI assessments have revealed that iron excess is not proportionally distributed among the organs; instead, it is stored in each organ at different concentrations.[4] The distribution of iron is also different for each BTM patient. Kolnagou *et al*. have proposed that this variation in iron concentration among patients with BTM may be due to chelation methods as well as genetic, dietary and pharmacological factors. It is therefore recommended that the individual iron load of all organs are monitored closely for patients with BTM.[4]

Mahmood D. Al-Mendalawi
Department of Paediatrics, Al-Kindy College of Medicine, Baghdad University, Baghdad, Iraq
E-mail: mdalmendalawi@yahoo.com

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