



## Iron Supplementation in Microcytic Hypochromic Anaemia

Microcytic hypochromic blood picture is one of the commonest hematological abnormalities in our country. A vast majority of such cases, microcytosis occurs due to deficiency of iron. By morphological study of red cells or by red cells indices differentiation between iron deficiency and beta thalassaemia trait becomes very difficult as two entities most often present with very similar blood picture. A conservative world health report said that there are 3.0 percent carriers of beta thalassaemia trait in Bangladesh.<sup>1</sup> These individuals are most often in positive iron balance and iron supplementation to this group is harmful and contraindicated. Excess of this iron can be deposited in endocrine glands, heart muscle and various tissues in the bodies causing organ dysfunction.<sup>2,3</sup>

So it is very much important to distinguish these two entities. This can be done by doing Hb-Electrophoresis supported by iron profile study. In some cases of beta thalassaemia trait there may be co-existing iron deficiency. This group of patient can only be treated with iron for a short period of time to improve the anaemia. This can be done by monitoring the serum ferritin level and other iron profiles. So it is recommended that before administration of iron in microcytic hypochromic anaemia it must be mandatory to confirm beta thalassaemia trait as they can protect positive iron balance.

**Prof. Md. Shamsur Rahman**

Professor of Biochemistry  
Dhaka National Medical College

1. Khan WA. Thalassaemia situation in Bangladesh. DS(Child)HJ 1999; 15: 42-44.
2. LiAM, Cheng MY. Anaemia and thalassaemia in healthy adolescent from southern families. J Paediatr child health 1990; 26: 339-342.
3. Fargion S, Taddei MT, Cappellini MD, Piperno A, Fiorelli G. The iron status in Italian subjects with thalassaemia trait. Acta haematol 1992;68: 109-114