

Anemia in the Postpartum Period, Clinical Practice with Intravenous Iron

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According to WHO postpartum anemia is defined as a Hb < 10 g/dL. Postpartum anaemia is frequent and affects 4 to 27% of women who give birth according to the studies. It results in increased maternal morbidity and length of hospital stay, asthenia that is responsible for difficulties in breast-feeding and in looking after the newborn child, a change in maternal well-being and sometimes potentially severe cardiovascular problems. Anaemia following childbirth is in the vast majority of cases associated with iron deficiency. The principal cause is the loss of blood occurring at the time of labour. This loss may be either physiological or haemorrhagic. Haemorrhage associated with childbirth is defined as blood loss of greater than 500 mL occurring in the 24 hours after childbirth.

At the current time, there is no consensus on the management of postpartum anaemia, and clinical practice may vary from one centre to another. The treatment of this condition is classically based on providing iron by the oral route, which is often poorly tolerated and inadequate, and/or blood transfusion for the most severe cases, despite the risks that this involves in young female patients who are otherwise in good health. In the postpartum period, the metabolism of iron is considerably modified. Because of the secretion of inflammatory cytokines, the secretion of iron and its absorption are suppressed by retention of iron in the reticulo-endothelial system, with a consequent reduction in its turnover and utilization. During this period, the supply of iron by the oral route is ineffective on both erythropoiesis and the iron status, probably because of lack of absorption.

The value of parenteral iron is that it replaces the non-

utilizable iron in the reticulo-endothelial system. The aim of treatment with intravenous iron is therefore not only to be able to avoid allogenic transfusion in young mothers but also to be able to offer them effective iron supplementation over a shorter period.

We conducted a retrospective study in 4292 women who gave birth from April 2001 to March 2003 in the Department of Obstetrics and Gynaecology of Belfort Regional Hospital. All patients who had a haemoglobin of less than 8 g/dL within 48 hours postpartum (217 women or 5% of women who gave birth) were included and divided into two groups depending on the availability or lack of availability of iron treatment by the intravenous route at the time when they gave birth. A range of clinical and laboratory parameters related to delivery were analysed.

The mean haemoglobin level in the 48 hours after delivery was: 5.81 g/dL for transfused women; 6.88 g/dL for patients treated with intravenous iron and 7.43 g/dL for patients treated with oral iron. Fifteen patients were transfused in the year prior to the introduction of treatment with intravenous iron and only five the following year. A mean increase in haemoglobin of 1.9 g/dL within 7 days was obtained with intravenous iron and of 3.1 g/dL within 14 days without any serious side effect.

These results suggest efficacy of treatment with intravenous iron for severe postpartum anaemia with entirely acceptable clinical tolerability. This treatment undoubtedly allows some blood transfusions to be avoided in young women, even though the indication for transfusion is unquestionable in the context of an emergency.