Letters to the Editor

Iron Deficiency Anemia in Pregnancy

I read with interest the observations in the article entitled "Iron deficiency anemia in pregnancy"(1). In this study, based on Hemoglobin (Hb) levels in 2nd trimester of pregnancy in 85 women, 93% of pregnant women were diagnosed as anemic. Amongst pregnant mothers, the prevalence of severe anemia was 13% (<7 g/dl), moderate anemia 35% (7-8.9 g/dl) and mild anemia 44% (9-10.9 g/dl). Only 6% of the pregnant mothers were having normal Hb level (> 11 g/dl). During pregnancy there is a physiological fall of Hb, the fall is steepest upto 20 weeks' gestation; the concentration remains fairly constant upto 30 weeks and then rises slightly thereafter(2,3). However, the study under question evaluated Hb during this period of pregnancy, *i.e.,* 2nd trimester.

In a recent report(4) of 153602 pregnant women (22206 of Indo-Pak origin), the highest mean birth weight of newborns was in women in 8.6-9.5 g/dl group. These results suggest that a Hb level between 9.6-10.5 g/dl is best to avoid preterm and small for gestation babies. Kapil *et al.*(1) have not mentioned the outcome of the pregnancies, *i.e.,* the effect of Hb level on birth weight and preterm delivery, so as to know whether the Hb level 9-10.9 g/dl (mild anemia) had any adverse effect on fetal growth or was it an appropriate Hb level for optimal fetal growth?

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Reply

We agree that there is a fall in Hb levels during the second trimester of pregnancy, as the plasma volume increases to a much greater extent than the red cell volume. Whether this fall represents anemia or not still remains a controversial issue(l). The World Health Organization(2) suggested that anemia was likely to be present in pregnant women with a Hb level below 11 g/dl.

Paintin *et al*.(3) suggested that anemia in pregnancy may not be reliably detected by Hb values. They further reported that iron deficiency anemia existed very often in pregnancy when the Hb value was value was below 10 g/dl. It has been reported that supplementation of iron and folic acid to pregnant mothers reduced the incidence of Hb befow 11 g/dl(4).

In our study(5), the WHO recommended classification of anemia outlined for pregnant women was utilized. The results revealed an anemia prevalence of 92% amongst women in second trimester of pregnancy. A similar prevalence has been reported by other investigators(6-8). Anemia is perhaps the most common complication during pregnancy in developing countries(9).

We also reported a low dietary iron intake of 12.4 + 9.1 mg/day which was less than half of the recommended dietary intake(5). Low dietary intake of iron secondary to low socioeconomic status as reported in our study is the primary cause of iron deficiency anemia(9).

We did not correlate the Hb levels of mothers with birth weight due to non completion of the study at the time of reporting the results of the research work. However, the available literature on the Indian population has documented that anemia during pregnancy has adverse effect on birth weight of the infants(6-9).

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