PP 03: Study on hemoglobin levels and status of iron stores in Sri Lankan pregnant mothers in the first trimester at tertiary care setting

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Introduction: Identification of pregnant women with anaemia and depleted iron stores in their first trimester helps to prevent complications of anaemia in pregnancy and iron deficiency. Though Haemoglobin level (Hb) is used as the main indicator it remains normal until iron stores are depleted in the body.. Hence assessment of ferritin level is important. This will help to decide on supplementation.

Objective: To describe the prevalence of anaemia, mean haemoglobin & ferritin levels in the first trimester pregnant women and to describe the proportion of depleted iron stores among the Hb normal group.

Methods: Descriptive Cross sectional study conducted from March-August 2009 at the ante-natal clinics at DSHW. The study included 203 first trimester pregnant women whose last menstrual period is known and confirmed by Ultrasound scan. Blood samples were taken for Full Blood Count, Blood Picture and Serum Ferritin.

Results: The mean Hb was 12.048mg/dl (±SD 1.2465mg/dl) and ferritin was 53.138ng/ml (±SD 68.9557ng/ml). According to the WHO criteria 13.9% (28) of them were anemic. Ferritin level less than 20ng/ml was seen in 21.2% (43). Low Ferritin levels were seen in 46.4% (13) of patients with low Hb and 17.2 % (30) of patients with normal Hb. Blood picture suggestive of iron deficiency was present in 72.2% (13) of the group with low Hb and 4.0% (5) of the patient with normal Hb.

Conclusions: The prevalence of anaemia during pregnancy in this study was 13.9%. Iron deficiency is seen in patients with low Hb as well as in patients with normal Hb.