Factors Related to Anaemia During Pregnancy – A Hospital-Based Case Control Study

Sonu H. Subba*, Nitin Joseph & M. S. Kotian

Department of Community Medicine, Kasturba Medical College Hampankatta, Mangalore, Karnataka-575001

**For reprint and all correspondence: Sonu H. Subba, Department of Community Medicine, Kasturba Medical College Hampankatta, Mangalore, Karnataka-575001*

ABSTRACT

Introduction	In spite of improved antenatal visits in developing countries like India, anaemia seemed to be common among pregnant women. This study therefore aims to see if antenatal visits made significant difference in occurrence of anaemia and to find other risk factors.
Methods	A case control study was conducted on pregnant women in their last trimester or immediate postpartum during February 2010. Cases were anaemic women and controls were women without anaemia selected from a Government Maternity hospital in Mangalore, South India. A total of 112 women, 56 each of cases and controls were recruited for the study and matching was done on pertinent factors like age and type of diet. Data was collected on various risk factors on a pre-tested semi-structured questionnaire.
Results	The results showed the mean ages of case and controls to be 25 (SD=4.9) and 26 (SD=3.8) years respectively, and they did not differ significantly in their educational status and parity. Number of antenatal visits below 3 was found to be significantly associated with the women's anaemia status with Odds Ratio (OR) of 9.2 and p=0.015. Other factors that were significantly associated with anaemia in women were having their first antenatal visit within 2 months (OR=0.34, p=0.008) and age at first pregnancy below 23 years (OR=2.4, p=0.02). Some of the other factors that showed association were regularity of consumption of Iron and Folic Acid (IFA) (OR=0.57) and birth interval of less than 2 years (OR=1.6), however they were not statistically significant. Even though pregnant women were becoming anaemic in spite of repeated antenatal visits in India, there is still evidence that frequency of antenatal visits does have an impact on their anaemia status. Those with anaemia were significantly more likely to have fewer than 3 antenatal visits. The anaemic women were also significantly more likely to have registered their pregnancy after two months and had their first pregnancy before 23 years. Instructions regarding iron and folic acid tablets, regularity of consumption and instructions on iron rich diet though were associated, however did not show significant contribution to the status of anaemia in women.
Conclusions	These show that stronger emphasis should be placed on early registration of women for antenatal care, on improving the number of visits and delaying age at first pregnancy rather than just providing IFA and advising on iron rich diets.