

ANAEMIA IN PREGNANCY: OCCURRENCE IN TWO ECONOMICALLY DIFFERENT CLINIC POPULATIONS OF KARACHI

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According to previous WHO standards, anaemia in pregnancy denoted a haemoglobin level of 11.0 gms/dl or less, but this is now considered to be variable¹ as it differs from country to country depending on local reference ranges and socio-economic conditions. Each country should “lay down minimal acceptable standards” below which an individual is considered to be anaemic, taking into account the available financial and manpower resources and other health needs of the country². There is a wide divergence in the quoted prevalence of anaemia in Pakistan and neighbouring countries.³⁻⁶ This study was undertaken to determine a range of haemoglobin levels and frequency of anaemia in pregnancy in 2 clinic populations of Karachi. This study emphasises the relationship between anaemia and socio-economic levels of the population.

SUBJECTS, METHODS AND RESULTS

Six hundred and thirteen patients of two teaching hospitals in Karachi have been included in this survey. Of these 213 were from Civil Hospital and 400 from The Aga Khan University Hospital. Civil Hospital, Karachi is a government run ‘free’ institution catering to the needs of the poor whereas The Aga Khan University Hospital is a private institution. All patients attending the Civil Hospital were of the low socio-economic class (assessed on basis of husband’s salary or other sources of income) whereas all patients coming to The Aga Khan University Hospital were of the middle or upper socio-economic class.

All pregnant women aged between 14 and 44, attending the Civil Hospital, Unit III, from May 1987 to October 1987 and The Aga Khan University Hospital between November 1986 to November 1987 at their first (booking) visit were included. Excluded were women who had been on haematemcs and drugs like Phenytoin Sodium known to cause folate deficiency.

The haemoglobin level and red cell indices i.e., MCV, MCH and MCHC were measured by the Coulter S-IV, automated haematology analyser and the blood films of all patients were examined.

The mean haemoglobin value at The Aga Khan University Hospital was 12 gms/dl with a range from 7.5 to 15. Anaemia was defined as 2 S.D. below the mean i.e. 10 gm/dl or less. Thus all patients with haemoglobin below 10 gms/dl were considered anaemic.

Thirty percent of pregnant women at Civil Hospital and 8% at The Aga Khan University Hospital had haemoglobin below 10G%.

COMMENTS

The normal range of haemoglobin for the pregnant Pakistani women is between 10—14 gms/dl. The frequency of anaemia among pregnant women of low socio-economic class was 30% and high socio-economic class 8%. Compared to previous studies in Pakistan^{5,6} this shows that anaemia in pregnancy

is not as common as supposed. The high prevalence of anaemia among pregnant women in previous studies may partly be due to the fact that these have taken 11 gms/dl and we have taken 10 gms/dl as the cut off point. Further studies are in progress to determine serum folic acid, B₁₂ and ferritin levels in these patients, thereby assessing the type of anaemia. Also under study is the relationship of increasing maternal age, parity and gestational age to anaemia in pregnancy.

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