Abstract

Studies of haematological parameters were performed on 366 (177 male and 189 female) normal Malawian neonates with mean +/- s.d. birthweight of 2.99 +/- 0.37 (range 2.1-4.0) kg using a Nova Cell Track, Model Nova CT11. Cord anaemia (Cord Hb < 13.5g dl-1) was detected in 100 (27.3%) of the neonates. It was also shown that although the male babies had a significantly higher erythrocyte protoporphyrin level (p < 0.001) than the females, there were no significant differences (p > 0.05) in the red cell, white cell and platelet indices between the two sexes. When the haematological parameters of the 266 (72.7%) non-anaemic (Cord Hb > 13.5g dl-1) neonates were analysed, the mean +/- s.d. values which may serve as local reference standards were: Hb 16.0 +/- 1.7 (range 13.5-21.3) g dl-1, Hct 47.0 +/- 6.0 (range 36.5-67.5) percent, MCV 112.6 +/- 8.9 (range 72.2-131.0) fl, MCH 31.9 +/- 5.5 (range 24.4-48.5) pg, MCHC 33.5 +/- 2.8 (range 29.1-48.9) g dl-1 reticulocyte count 6.9 +/- 3.6 (range 1.2-25.0) percent, free erythrocyte protoporphyrin 3.3 +/- 0.9 (range 1.9-7.7) mgs ZPP gm-1 Hb, platelet count 269.9 +/- 57.7 (range 134.0-454.0) x 10(9) l-1 and total leucocyte count 12.3 +/- 4.8 (range 5.5-35.3) x 10(9) l-1. Further analysis of the differential wbc count disclosed normal levels of eosinophils and neutrophils similar to those given in standard haematology textbooks for Caucasian neonates; thus strengthening the belief that eosinophilia and relative neutropenia previously reported in adult Africans is not of genetic origin, but rather an acquired phenomena.