Pattern of HB F Level Rise During Normal Pregnancies

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Abstract

Fetal hemoglobin (Hb F) is the normal hemoglobin (Hb) that is present in the fetus and usually almost absent in adults. The objective of this study was to assess the changes in Hb F levels during normal pregnancy. The level of Hb F was determined in serial blood samples from women at different stages of pregnancy using cation exchange high performance liquid chromatography (HPLC) and compared to age and sex-matched controls. A significant increase (p <0.001) was observed in the level of maternal Hb F; the mean Hb F level during pregnancy was 0.71 ± 0.51%, while in the non pregnant control group it was 0.28 ± 0.35%. There was no significant difference in Hb F levels in the three trimester groups using the ANOVA test (F = 0.25). Correlation studies between the gestational age and level of Hb F showed no significant increase of Hb F with advancing pregnancy (R = -0.053, p >0.05). The cause of the rise in Hb F is yet to be elucidated.

Keywords: Hb F; Normal pregnancy; High performance liquid chromatography (HPLC)