Study of maternal and cord blood vitamin B12 levels with anthropometry in term neonates born to normal and malnourished mothers: a hospital based cross sectional study

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**1. Dissertation Protocol**

**TITLE:** Study of maternal and cord blood vitamin B12 levels with anthropometry in term neonates born to normal and malnourished mothers: a hospital based cross sectional study

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**Abstract**

**Background**

Vitamin B12 deficiency in pregnancy has been associated with low birth weight and preterm birth. The vitamin B12 status of an infant is largely determined by the B12 status of the mother. Malnourished pregnant women population is at high risk for both micronutrient deficiency and pregnancy complications. We aimed to determine the maternal and cord blood VitB12 levels in term neonates born to normal and malnourished mothers and the relation between maternal and cord blood VitB12 levels with neonatal anthropometry.

**Patients and Methods:**

A quantitative, analytical, cross sectional, institutional based study would be conducted on 63 malnourished mother, neonate dyad and 63 normal nourished mother, neonate dyad between August 2020 to August 2021. Socio-demographic status, diet and nutrition habits of the mother would be entered in the proforma. Maternal weight and height will be documented form medical records. Neonatal anthropometry will be measured. Maternal and cord blood vitamin B12 will be measured using Elisa kit.

**Results:** awaited

**Key words:** Cord blood, malnourished mothers, neonatal anthropometry, vitamin B12