

## Relationship between Newborn Mid-Upper-Arm-Circumference (N-MUAC) and Newborn birth weight

Ankit Agrawal

Madhya Pradesh Medical Science University, India



### Abstract

**Background:** Recording an accurate birth weight by primary health worker has been a problem in rural areas, leading to search for alternative inexpensive, age independent and non-invasive method to predict newborn birth weight and wellbeing.

**Objective:** Relationship between Newborn Mid-upper-arm-circumference (N-MUAC) and Newborn birth weight.

**Study Design:** Prospective observational study

**Participant:** Total of 1303 Intramural newborns admitted in SNCU Kamla Raja Hospital, G.R. Medical College, and Gwalior (M.P) were studied.

**Intervention:** The Mid upper arm circumference (MUAC) of newborns were taken and Birth weight recorded were filled in a proforma.

**Result:** Total of 1303 newborns was included in the study. The mean MUAC and birth weight in preterm is found to be 1854.80+387.3 and 7.47+0.9 as compared to full term newborn who is having mean birth weight(2818.95+328.1) and mean MUAC (9.58+0.7).The correlation coefficient between neonatal MUAC (N-MUAC) and birth weight is found to be  $r=0.987$  and  $p<0.01$ . Birth weight can be predicted from regression equation: Birth weight (gms)=422.99 (N-MUAC) +(-1272.66). Cut-off value of neonatal mid upper arm circumference(N-MUAC) was found to be 8.85cm to predict low birth weight neonate.

**Conclusion:** Birth weight of neonate can be predicted from neonatal mid upper arm circumference (N-MUAC) in areas where the conventional scale are not easily available for measuring the birth weight of neonate.

### Biography:

Ankit Agrawal is currently working as in Madhya Pradesh Medical Science University, India. His main works are into the field of pediatrics and he has published many articles for the same.

[28<sup>th</sup> International Conference on Clinical Pediatrics;](#) London, UK- April 15-16, 2020.

### Abstract Citation:

Ankit Agrawal, Relationship between Newborn Mid-Upper-Arm-Circumference (N-MUAC) and Newborn birth weight, Clinical Pediatrics 2020, 28<sup>th</sup> International Conference on Clinical Pediatrics; London, UK- April 15-16, 2020 (<https://clinicalpediatrics.conferenceseries.com/abstract/2020/relationship-between-newborn-mid-upper-arm-circumference-n-muac-and-newborn-birth-weight>)

