

Hospital, in the period between the 1st of March to the 1st of May 2010; one hundred fifteen delivered by normal vaginal delivery (NVD), and eighty five were delivered by caesarian section (C/S).

All these 200 pregnant women were studied have full term babies, and all pregnant women with chronic diseases had been excluded from the study. For each mother, blood sample was aspirated, before delivery and sent for hemoglobin analysis (PCV was done) at the laboratory in Al-Yarmook Teaching Hospital.

Regarding the newborn of each mother only full term were included in the study, all preterm were excluded as well as, post date and any baby with obvious dimorphic feature .

Four measurements took for each baby (weight, length, head circumference and chest circumference) which were done immediately after birth in the neonatal intense care unit in AL-Yarmook Teaching Hospital.

- I. Weight measurement of baby used digital scale.
- II. Lengths measurement of baby by Infantometer (studiometry) done by fix baby inside the box in supine position fix the head & lower limbs then attach the lower end of infantometer to sole of the feet.
- III. Head Circumference measurements done according the following steps:
 1. Use non-stretch tape, such as flexible metal tape measure.
 2. Warp the tape around the widest part of the child head.
 3. Move the tape around a bit and record the largest possible measurement.

Measure the circumference of the head at the level of the plane passing above the glabella (the most anterior protrusion of the forehead) and over the opisthrocranium (the most posterior protrusion from glabella on the back of the head), per-pendicular to the mid-sagittal plane. Three different measurements take for each baby and record the largest one.

IV. Chest Circumference measurement of baby.

The infant lies on back. With an automated tape device, measure the circumference of the chest at the level of the nipples during normal breathing.

Analysis of data was carried out using the available statistical package of SPSS-18 (Statistical Packages for Social Sciences- version 18 "PASW" Statistics). Data were presented in simple measures of frequency, percentage, mean, standard deviation, and range (minimum-maximum values). The significance of difference of different means (quantitative data) was tested using student-t-test for difference between two independent means, while different percentages (qualitative data) were tested using Pearson Chi-square test. Statistical significance was considered whenever the P value was less than 0.05.

Results

From 200 pregnant women who were included in this study, 115 (57.5%) of them delivered by NVD and 85 (42.5%) delivered by C/S. One hundred forty (69.5%) of women with normal Hb, 60 women (30.5%) with anemia, 58 women (29.5%) with mild anemia and 2 women (1%) of them with moderate anemia; we make as anemic and non-anemic group figure 1.

The mean of (weight, length and chest circumference) show significant difference between anemic and non-anemic ($P = 0.031$, $P = 0.009$, $P = 0.004$) while head circumference was not significantly affected ($P = 0.054$) as it is shown in table 1. There was a statistically significant difference in the anthropometrics measurement of new born of anemic and non-anemic groups. The study showed that the (weight, length, head circumference and chest circumference) of neonates in anemic group was less than non-anemic group weight (180 g), length (0.8 cm), head circumference (0.38 cm), chest circumference (0.7 cm) show in table 1.