ANTHROPOMETRIC MEASUREMENTS IN THE NEWBORN*

A Study of 1000 Consecutive Livebirths

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There is a wide variation in the normal birth weight and length of a full-term infant. Different standards of norms are used in different parts of the world. The standards formulated by Western workers cannot be applied to this country because of wide variations in normal range of height and weight in different ethnic groups. The causes of such differences are many, viz. poverty, food fads, gastrointestinal and other infections, lack of health education resulting together in malnutrition and growth failure.

The literature is replete with norms of various anthropometric measurements in the newborn so far as Western countries are concerned. Some valuable work has been done in India also, by Ghosh et al. (1944), Prasad (1955), Paul and Ahluwalia (1957), Lenskaye et al. (1961), Achar and Yankauer (1962), Singh and Venkatachalam (1962) and Athavale (1963).

The purpose of the present study was to determine the normal anthropometric values viz. birth weight, crown-heel length, crown-rump length, head circumference and thoracic circumference in a full-term newborn in this part of the country and also to know whether these anthropometric measurements can be useful in labelling a baby as premature.

Material and Methods

The study was undertaken on 500 newborns drawn from the maternity section of this hospital. All the live born babies born by the vaginal route or cesarean section were taken up for this study. The cases were unselected and twins were also included.

The date and time of birth of each baby was noted. After a thorough check up, all the anthropometric measurements were made either soon after birth or in a few babies within four hours of birth. Standard techniques were used for recording these measurements.

Body weight. The baby was accurately weighed in grams by placing the nude baby on a sensitive weighing machine.

Crown-heel length. The baby was placed on the infantometer with legs completely stretched by applying moderate pressure on the knees in such a position that the orbitomental line was perpendicular to the horizontal surface of the board. The fixed piece of the measuring scale just touched the most prominent part of the head i.e., the

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Fig. 1.—Infant on Infantometer.

Fig. 2.—Position on infantometer for taking crown-rump length.