Newborn Baby Having Birth Weight of 6 Kg. Is It Heaviest Birth Weight Ever Recorded in Bangladesh?

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Introduction

Fetal macrosomia defined as birth weight 4000 gm (81b,130z)[1] or 4500 gm (91b,150z)[2] or birth weight greater than 90% for gestational age after correcting for neonatal sex and ethnicity. Based on these definition macrosomia affects 1-10% of all pregnancies[3]. A diagnosis of fetal macrosomia be made only by measuring birth weight after delivery. It is difficult to predict, clinical and ultrasonographic estimate of fetal weight are prone to error. There is no published data about the incidence of macrosomia in our country. Perhaps it is not as common as western country where 10 percent of all pregnancies are complicated with macrosomia. Whatever the incidence, the delivery of a macrosomic infant has potentially serious consequences for the infant and the mother.

Heaviest baby in history

According to gunness world records the heaviest baby born to a healthy mother weighing 10.2 kg (22 pounds 80 ounces) born in Aversa Italy, in September 1955[4]. Another baby was born on March 9, 1992, in Cumbria, UK weighting 7 kg (15lb 8oz), he was 63 cm (25 inch) in length. In January 18, 2005 Bahia, at Brazil a baby was born in Sabin Maternity Hospital with weight of 7.6 kg. In January 29, 2007 a baby was born in Cancum, Mexico, weighing 6.6 kg[4].

In Asia, in August 10, 2006, a baby boy was born in Xiangfana, Central China's Hubei province, weighing 5.5 kg and length was 57 cm[4]. February 8, 2006, a big baby girl with a weight of 6.15 kg was born in Xuzhou, East China's Jiangsu provience by caesarean operation[4].

No such record is found in our country**.** We report the case, so that pediatrician is familiar with that unexpected situation.

Case Report:

A baby boy was born by caesarian section on 14.06.08 at 12.36pm in Uttara Adhunic Medical College Hospital, with a birth weight of 6 kg (Fig. 1 & 2). His length was 58 cm and OFC 37.5 cm. APGAR score at 1minute was 7/10 and at 5 minute was 9/10. Mother is a home maker, taking average family diet during pregnancy and did not have any significant illness. She was in regular antenatal checkup. Her blood sugar was normal during pregnancy but she had H/O gestational diabetes during her first pregnancy. Birth weight of her first baby was 5.4 kg.

Baby's mother and father have average height and weight (Mother's weight 74 kg, height 160 cm, Father's weight 76 kg and height 167 cm). BMI of mother is 28.90 kg/m^2.

Fig.-1 : *Nacrisinuc baby*

The macrosomic baby has no facial dysmorphism, maintain normal blood glucose level. Initially he was tachypneic, but investigations reveal normal findings. He was admitted in our SCABU for 4 days, well and was discharged on 5th day of his life.

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Fig.-2 : *Macrosomic baby with a normal birth weight baby*

Discussion

Variation in the percentage of macrosomia in different ethnic group has been observed independent of diabetes. Factors associated with fetal macrosomia include genetics, duration of gestation, presence of gestational diabetes and diabetes mellitus of mother. Genetic, racial and ethnic factors influence birth weight. Male newborns typically weigh more than female newborns and thus comprise a greater proportion of infant with weights exceeding 4500 gm at any gestational age. Hispanic woman have a higher risk of fetal macrosomia compared to African, American or Asian woman[5].

Genetic factors, such as parental height and weight, may also play a role in determining newborn birth weight. A BMI of greater than 30 kg/m^2 is associated with larger infants at delivery. Maternal diabetes, impaired glucose tolerance test, multiparity, previous macrosomic infant, prolong gestation, maternal obesity, male fetus, parental stature all are risk factor associated with macrosomia[6-10]. Despite the identification and characterization of risk factors, no combination of these risk factors can predict macrosomia accurately. Even when two or more risk factors are present the risk of macrosomia only 32 percent. Further more, 34 percent of macrosomic infants are born to mothers without any risk factors and 38 percent of pregnant woman have at least one risk factor[6].

So, much of the birth weight variation remains unexplained and most macrosomic infants do not have identifiable risk factors.

Over all risk associated with macrosomic baby during delivery include birth trauma (3-7%), including shoulder dystocia(24%) brachial plexus injuries (1-4%) and death (0.4%). Risk associated with macrosomic neonate includes hypoglycemia (50%), hematological disturbances (polycythemia) and electrolyte disturbances (up to 50%).

The most feared result of macrosomia is shoulder dystocia, and up to one fourth of infants with shoulder dystocia experience brachial plexus or facial nerve injuries, or fractures of the humerus or clavicle[11]. The most feared complication secondary to shoulder dystocia is asphyxia, which is rare[12,13].

Three major strategies used to detect macrosomia, clinical risk factor, clinician estimation and ultrasonography but all have substantial limitation in accuracy.

Conclusion

Although macrosomic newborn is not a major problem in our country but sometimes it create a great concern to obstetrician as well as a paediatrician.

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