Short term Outcomes of Term Breech Deliveries in Ain Shams Maternity Hospital During last 3 years.
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Thesis

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بسم الله الرحمن الرحيم

﴿... نَرْفَعُ دَرَجَاتٍ مَّن نَّشَاءُ

وَفَوْقَ كُلِّ ذِي عِلْمٍ عَلِيمٌ ﴾

صدق الله العظيم

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List of Abbreviations

ACOG : American College of Obstetricians and Gynaecologists

CI : Confidence interval

ECV : External cephalic version (ECV)

ELCS : Elective caesarean section

KNOV : Royal Dutch Organization for Midwives

NICU : Neonatal intensive care unit

NVOG : Dutch Society for Obstetrics and Gynaecology

OR : Odd's ratio

PCS : Planned caesarean section (PCS)

PVB : Planned vaginal birth

RCOG : Royal College of Obstetricians and Gynaecologists

RR : Relative risk

TBT : Term Breech Trial

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Introduction

Breech presentation has been of concern to obstetricians since antiquity. Hippocrates was well aware of this malpresentation and regarded it as a bad omen ***(Kirschbaum et al., 1998).***

Finding the delivery mode with the lowest risks for both mother and child has always been a controversial issue among obstetricians.

Breech deliveries have always been topical issues in obstetrics because of the very high perinatal mortality and morbidity. These are due to combination of trauma, birth asphyxia, prematurity and congenital malformation ***(Hyftern, 1982).***

In addition 19.4% of neonates undergoing term breech deliveries have long-term morbidity up to the school age irrespective of mode of delivery ***(Danielian et al., 1996).***

Thus wide ranges of management policies have been instituted with the aim of reducing this perinatal morbidity and mortality, and hence improve the quality of life of these infants later in life.

Breech presentation occurs in 3% to 4% of pregnancies at term. The randomized multicentre Term Breech Trial (TBT) showed that a planned elective caesarean section (ELCS) reduces the risk for adverse perinatal outcomes or serious

maternal morbidity when compared to a planned vaginal breech birth in the short term ***(Hannah et al., 2000).***

Long term follow-up at 2 years has not found neonatal neurological outcomes or maternal outcomes differing between women who had an ELSCS compared to vaginal breech birth ***(Whyte et al., 2004).***

A large study conducted in the Netherlands following the TBT study found that the rapid increase in caesarean section rates resulted in substantial improvements in perinatal outcomes leading to halving of perinatal mortality rates, and ever greater reductions in the incidence of perinatal birth trauma ***(Rietberg et al., 2005).***

However, the view remains that if the application of strict criteria before and during labor is met; planned vaginal delivery of a singleton breech at term is a reasonable management option ***(Royal College of obstetricians and Gynecologists, 2006).***

Cesarean delivery of breech presentation at any gestational age has been recommended to reduce neonatal morbidity and mortality, although some studies have failed to demonstrate this advantage. Furthermore, cesarean delivery has been accused of increasing maternal morbidity ***(Kazmierczak et al., 2011)***.

When weighing the pros and cons of Caesarean Section, however, one should be aware that these results may be due to the safety of low segment surgery and the safer anesthesia now available. On the other hand, the problem of the uterine scar has to be considered, especially in families that want to have more children. There have also been some suggestions that babies delivered by C-section more frequently suffer from respiratory problems ***(Pajntar, 1998).***

Although many papers on the topic can easily be found in computerized bibliographies, as well as in works from earlier times and obstetrical manuals published over the last two centuries, there is still no universally accepted way to manage breech delivery ***(Kazmierczak et al., 2011)***.

Even Meta analyses do not give a clear answer to the question as to which mode of delivery is better. A study by Hannah (Toronto) has proven that cesarean section (C-section) seems to be safer for the infant ***(Hannah et al., 2000).***

In light of recent studies that further clarify the long-term risks of vaginal breech delivery, the American College of Obstetricians and Gynecologists recommends that the decision regarding mode of delivery should depend on the experience of the health care provider. Cesarean delivery will be the preferred mode for most physicians because of the diminishing expertise in vaginal breech delivery. Planned vaginal delivery of a term singleton breech fetus may be

reasonable under hospital-specific protocol guidelines for both eligibility and labor management. Before a vaginal breech delivery is planned, women should be informed that the risk of perinatal or neonatal mortality or short-term serious neonatal morbidity may be higher than if a cesarean delivery is planned, and the patient's informed consent should be documented ***(Marti, 2002).***

During the past decade, there has been an increasing trend in the United States to perform cesarean delivery for term singleton fetuses in a breech presentation. In 2002, the rate of cesarean deliveries for women in labor with breech presentation was 86.9 % ***(Martin et al., 2003).***

The number of practitioners with the skills and experience to perform vaginal breech delivery has decreased. Even in academic medical centers where faculty support for teaching vaginal breech delivery to residents remains high, there may be insufficient volume of vaginal breech deliveries to adequately teach this procedure ***(Lavin et al., 2000).***

In a previous study from Latin America, it was reported that the risk of death during intrapartum period was almost tenfold higher for fetuses with breech presentation when compared with fetuses with cephalic presentation independently of gestational age. Data from the Perinatal Information System database of the Latin American Centre for Perinatology and Human Development (Montevideo, Uruguay) show that 66% of

singleton term breech presentations underwent caesarean section. Moreover, compared with term breech fetuses delivered by caesarean section, term breech fetuses delivered by vaginal route had almost nine times increased risk of perinatal mortality ***(Conde-Agudelo et al., 2000).***

Also, it was found that Forty-four per cent of studied women came from countries with a high perinatal mortality rate (developing countries). In these countries, the benefits of planned caesarean delivery to the infant were much lower than in countries with a low perinatal mortality rate. A more plausible explanation is that intrapartum care providers in countries with a high perinatal mortality rate may be more experienced and skilled in vaginal breech delivery. Performing planned caesarean section for all term fetuses in the breech presentation would require large additional investments in most developing countries. Furthermore, in these countries where there are poor facilities for regional anesthesia, blood transfusion and aseptic conditions etc., a policy of caesarean section for all breech presentations would increase the risk to women as well as put them at greater risk in their future pregnancies due to the presence of the scar in the uterus. Thus, in some settings the risk of caesarean section may outweigh the risk of vaginal birth ***(Hannah et al., 2001).***

Aim of the Work

The aim of this study was to assess the practice and short term maternal and neonatal outcomes of term breech deliveries in Ain Shams Maternity Hospital during the period (January 2011- December, 2013).