

# **The Effect of Natural Cesarean Section on the initiation of breastfeeding A Randomized Clinical Trial**

**Thesis**

*Submitted for Partial Fulfillment of Master Degree  
In Obstetrics and Gynecology*

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## **List of Abbreviations**

- AWHONN : Association of Women's Health, Obstetric And  
Neonatal Nurses.
- CS : Cesarean Sections.
- ECG : Electrocardiogram .
- HIV : Human Immunodeficiency Virus.
- NICU : Neonatal Intensive Care Unit.
- QBL : Quantification of Blood Loss.
- SSC : Skin to skin Cesarean Section.
- UNECIF : United Nations International Children's  
Emergency Fund.
- VBAC : Vaginal Births After Cesarean .
- WHO : World Health Organization .

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## Introduction

The term 'caesarean section' refers to the operation of delivering a baby through incisions made in the mother's abdominal wall and uterus (**Neilson, 2003**).

Caesarean sections (CS) are the most frequent major surgery in the world with an estimated 18.5 million procedures being performed each year (**WHO, 2013**). According to the latest official estimates, 15% of all deliveries in the world occur through CS, with large variations between and within countries, ranging from less than 5% in some African regions to over 50% in several Latin American countries and in china (**Betrán, 2007; WHO, 2013**).

In Egypt, caesarean sections were performed in 38.84 % of deliveries in 2008, 37.88 % in 2009, 39.08 % in 2010, 37.72 % in 2011, 41.17 % in 2012 (**Waleed et al., 2013**).

Caesarean section is an intervention to reduce complications associated with childbirth. While it can be a life-saving procedure for both the mother and the unborn child, caesarean section is also used in situations when neither the mother nor the unborn child has a greater risk of complications than the rest of the peripartum population. Caesarean section itself has risks, including maternal infections, haemorrhage, organ injury, anaesthetic complications (**International Cesarean Awareness Network, 2002**).



A transient impairment of bowel motility is expected after any major surgery, including CS (**Holte, 2000; Bauer, 2004**). This condition, known as postoperative paralytic ileus (or ileus) is defined as the functional inhibition of propulsive bowel activity (**Livingston, 1990**).

Caesarean section is associated with more postpartum pain than vaginal birth (**Kainu, 2010**) and leads to more acute and chronic pain (**Ingrid, 2006**).

Women undergoing caesarean section have an increased risk of postoperative Infection and infectious morbidity compared with women giving birth vaginally (**Declercq, 2007**).

Bladder injury quoted as the most frequently injured organ during pelvic surgery (**Mendez, 2001**). The incidence of bladder injury during cesarean section ranges from 0.08 to 0.94% (**Lee et al., 2012**).

Increasing evidence shows that women undergoing caesareans have a less satisfactory childbirth experience than those delivering vaginally and are more prone to postnatal depression, bonding difficulties and unsuccessful breastfeeding (**Dewey et al., 2003**).

Caesarean delivery has been associated with decreased breastfeeding initiation in multiple studies (**Perez-Rios et al., 2008**). Early skin-to-skin contact and initiation of breastfeeding

within 30 minutes as recommended by the WHO/UNICEF Baby Friendly Initiative is almost nonexistent (**World Health Organisation, 1989**), (**Anderson et al., 2003**), (**Rowe-Murray et al., 2002**).

Partners undergoing caesarean section will be anxious about the baby and the operation theater which is a new environment for them (**Wyatt et al., 2001**).

(Natural Caesarean Section) is described for straightforward elective caesareans in healthy women with non-compromised singleton fetuses at term. It can be adapted for nonurgent emergency procedures but is not suitable for preterm or breech presentations (**Smith et al., 2008**).

In (Natural Caesarean section) the wife and her husband are allowed to see the operation room preoperatively and observe the delivery of the baby. Early skin-to-skin contact in Natural Caesarean provides early starting of breastfeeding (**Smith et al., 2008**).

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## Aim of The Work

The purpose of this study is to assess the effect of natural caesarean section on initiation of breastfeeding.

### **Research Question**

In women undergoing Natural caesarean section, dose initiation of breastfeeding occur earlier than in women undergoing traditional caesarean section.

### **Research Hypothesis**

Women undergoing Natural caesarean section start breastfeeding like those having traditional caesarean section, without any delay.

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## Patients and Method

**Setting:** Ain Shams University Maternity Hospital (Labor ward).

**Study design:** prospective randomized clinical trial on 128 full term pregnant women undergo caesarean section.

All patients will be asked to participate in this clinical trial.

**Patients:**

**Criteria of inclusion:**

1. Age group (20 to 40 years old).
2. Primigravida and para one elective section (with no experience in breastfeeding due to non permanent causes).
3. Full term, cephalic, single baby, average weight.
4. Spinal anesthesia.
5. BMI up to 35.

**Criteria of exclusion:**

1. High risk pregnancy.
2. Women with known or suspected fetal malformation.
3. Women with uterine malformations.
4. Breech or transverse lie.
5. Emergency caesarean section.
6. Previous two or more caesarean section.

**Consent:**

Written informed consent will be obtained from each woman antenatally.

**Ethical committee approval:** This study will be done after the approval of the ethical committee.

**Methodology:**

- The patients will be classified randomly into 2 groups; group A (64 patients) undergoes natural caesarean, group B (64 patients) undergoes traditional caesarean.
- Randomization will be through computer generated randomized table.
- Full history taking with special attention to confirmation of the inclusion criteria.
- Two senior registrars are forming the team that will do this clinical trial.

**Steps of Natural caesarean section:**

- Antenatally, we use video clips to demonstrate what happens at a (Natural caesarean section ).
- The woman and her husband (mother or sister) will meet the obstetrician preoperatively and are shown the operating theater to render the environment less intimidating.
- In theater, the pulse oximeter is positioned on the mother's foot to keep her hands free, and the intravenous line is placed

in the nondominant arm as per usual practice to facilitate skin-to-skin contact.

- The anesthetic block (spinal) aims to permit pain-free surgery without requiring supplementation (which may affect the woman's responses).
- The patient will be asked to evacuate her bladder before operation as urinary catheter will not be used.
- Bladder flap will not be done as well.
- After uterine incision, the drape is lowered to enable the mother and the husband to watch the birth.
- The principle for the surgeon is then hands-off, as the baby autoresuscitates.
- Once crying, the baby's shoulders are eased out, and the baby then frequently delivers his/her own arms.
- Five units of syntocinon will be given intravenous after the delivery (if within 5 minutes the uterus is not well contracted another 5 units of syntocinon will be given intravenous).
- Once the baby is finally born and wellbeing confirmed, the cord is clamped and cut in view of the parents.
- The baby will be positioned on the mother's chest. Skin-to-skin contact will be established within a minute of delivery.
- The uterus will be closed in 2 layers by vicryl, peritoneum, muscle and sheath will be closed by vicryl, skin will be closed subcuticular by prolene 2/0.

- The neonatologist will be available in the room in case the baby needed any further resuscitation.

### **Steps of traditional caesarean section:**

- Spinal anesthesia, catheterization.
- Opening anterior abdominal wall in layers.
- Opening of visceral peritoneum and bladder flap formation.
- C-shaped incision of the uterus.
- Delivery of the baby with separation of the placenta.
- Clamping of the cord and the baby will be early resuscitated by the neonatologist.
- There is no skin-to-skin contact in the traditional caesarean section.
- Close the uterus in 2 layers by vicryl, close the sheath by vicryl and close the skin subcuticular by non absorbable prolene 2/0.

### **Primary outcomes:**

- Time to start breastfeeding.

### **Secondary outcomes:**

- Time to resumption of bowel motion.
- Postoperative pain score and need for extra analgesics.
- Length of hospital stay.
- Patient and husband satisfaction.
- Need for neonatal resuscitation.