Introduction

Delivery by Caesarean section occurs in 15% to 25% of births (***Biswass, 2003)***. The most frequent indications for Caesarean section are previous Caesarean section, dystocia, malpresentation, and non-reassuring fetal status ***(Weinstein et al., 1996).*** In any given region, the rate of birth by Caesarean section and the rate of vaginal birth after cesarean section (VBAC) tend to be inversely related. Schell first reported VBAC in 1923, describing the successful vaginal delivery of 34 infants in 23 mothers with previous Caesarean deliveries (***Roberts et al., 1994)***.

A trial of labour (TOL) after Caesarean should be considered in women who present for prenatal care with a history of previous Caesarean birth. In certain situations, TOL after Caesarean will be contraindicated and a repeat Caesarean section will be advised, but in most cases, successful vaginal birth can be achieved safely for both mother and infant. Women and their health-care providers will need to discuss the risks and benefits of VBAC when planning the birth (***Socol and Peaceman, 1999)***. The success rate of TOL after Caesarean ranges between 50% and 85% (***Quilligan, 2001)***. In a study examining 1776 women undergoing TOL after Caesarean, the overall success rate was 74%. A Canadian study reported similar results quoting a success rate of 76.6%. Predictors of successful VBAC include nonrecurring indication for Caesarean birth, such as malpresentation or gestational hypertension and a previous vaginal delivery where success rates are as high as 82% ***(ACOG,2006)***

When the previous Caesarean birth was for dystocia, failure to progress, or cephalopelvic disproportion, some studies found the rates of

successful VBAC comparable, while others reported or lower-than-expected rates (***Bujold and Gauthier, 2001)***.

The saftety of VBAC , has been confirmed in various clinical trials. However , the possibility of uterine rupture exists with an incidence of 0.3 – 2.3% ***Chauhan, et al (2007)*** . Uterine rupture requires immediate surgical intervention and outcomes for infants and mothers are often disastrous. ***(Chaung, 2005***). Therefore, if uterine rupture cane be predicted, the trials of labor in VBAC candidates may be managed more safety .There have been a few attempts to evaluate the strength of the uterine scar during a trial labor by measuring the thickness of the lower uterine segment using ultrasound ***(Rozenberg, et al., 2004)***

When the lower uterine segment was less than 2mm in full thickness, histology of the scar tissue showed a higher incidence of disturbed healing ***(Constantinescu , and Ahluwalia, 2004).***

In performing ultrasound measurements by a transvaginal approach to measure the lower uterine segment to detect its integrity and quality of the scar healing . Using of a transvaginal approach give clearer visualization and more accuracy than transabdominal approach . ***(Sambaziotis, and Conway, et al., 2007).***

Documentation of the location and type of uterine incision used during the previous Caesarean section is ideal. In most cases, this information can be obtained by reviewing the operative record from the previous surgery. Other informations in this record, such as the indication for the Caesarean section and the opinion of the previous surgeon, may be helpful in counseling as well. The fact that the record has been reviewed and that no contraindications to a TOL after Caesarean are present should

be documented clearly on the prenatal record. If the operative record is not available, the scar is considered "unknown." (***ACOG , 1999).***