Comparative Study between cervical cerclage and weekly progesterone injection on outcome of preterm labour in patients with history of preterm labour

Thesis

Submitted for partial fulfillment of the MD degree in obstetrics and gynecology

By

Hazem Galal Abdlhamid

M.B, B.CH

Assistant lecturer of obstetrics and gynecology

Faculty of medicine, Fayoum University

Supervised by

Prof.Gamal Gamal El-Din Youssef

Professor of Obstetrics and Gynecology

Faculty of medicine, Cairo University

Dr. Abdel Samie Abdel Monem Abdel Samie

Assistant professor of Obstetrics and Gynecology

Faculty of medicine, Fayoum University

Dr.Motaz Mahmoud Elsherbini

Lecturer of Obstetrics and Gynecology

Faculty of medicine, Cairo University

Faculty of medicine

Cairo University

2013

SUMMARY

Preterm labor is a common obstetric problem. It is any birth that occurs before 37 completed weeks' of gestation .The incidence is between 5% and 10% in most developed nations.

Prematurity represents a major cause of perinatal death and long term handicap. Although the incidence of preterm labor is increasing in the last years in USA and in Europe, neonatology has advanced, and the survival of babies has improved. Yet, handicaps continue to occur in babies born at very early gestational ages. The majority of problems facing preterm neonates are mainly due to organ immaturity, particularly the lungs, and it seems clear that the severity is inversely proportional to gestational ages.

Prevention is directed towards identification of women at risk.recent studies have identified clinical, sonographic, and biochemical markers that help to identify the women at highest risk. Determining cervical length and measuring cervicovaginal fibronectin have been proposed as useful tools for evaluating women at risk of preterm birth and may identify those who might benefit from antenatal corticosteroids, but effective interventions to prevent preterm birth remain elusive.

The treatment of established preterm labor should be directed towards identifying those women in whom a delay in delivery is likely to be beneficial and those in whom it may be lethal in terms of neonatal or infant outcome. Although there is little hard evidence that tocolysis improves the outcome for the baby, most obstetricians treat threatened uncomplicated preterm labor in order to administer steroids or transfer the mother to an appropriate hospital.

Because of the multiple roles of Progesterone in the establishmentand maintenance of pregnancy, it has been a natural choice for thetreatment and prevention of preterm labor. Multiple trials have examined the use of progesterone in various preparations for prophylaxis against recurrent preterm birth, which have proved aprotective effect of progesterone, with a significantly longer meanduration of pregnancy, higher mean birth weight, and lower perinatal mortality rate. There has been a recent reappearance ofinterest in the use of progesterone supplementation to prevent preterm delivery in high-risk patients as evidenced recenttrials; such as Meis et al 2003 and Mustafa Ibrahim 2009 and our study support the hypothesis that progesterone supplementation reduces preterm birth in a select high-risk group of women.

Use of cervical cerclage in patients with short cervix < 2.5cm during antenatal care as a therapeutic method is established. But its use in cases of spontanous preterm labour as a prophylactic method is controversial.

In our study comparisonbetween 17 OH progesterone 250 mg weekly injection starting at 20 weeks gestational age and prophylactic McDonald cervical cerclage revealed that both methods reduce the recurrence of preterm labour. With 17 OH progesterone 250 mg weekly injection more superior as this method was associated with better gestational age at time of delivery, less need to tocolysis and patients' compliance is good. On the other hand more complications were associated with cerclage regarding need to tocolysis, pyrexia and vaginal discharge .otherwise no Statistical difference between both methods regarding the fetal birth weight outcome and neonatal morbidity and mortality.