A 10-year review on propyhlactic prophylactic Mcdonald's McDonald's cervical cerclage as prevention of recurrent second trimester loss and pre-term birth in Hospital Sultanah Bahiyah, Alor Setar, Kedah

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ABSTRACT

Introduction: We aimed to study the effectiveness of prophylactic McDonald's cervical cerclage and associated risk factors in preventing recurrent second-trimester loss and pre-term birth. **Methods:** A retrospective cohort study was performed in O&G Department, Hospital Sultanah Bahiyah (HSB) from 2013 until 2022. Inclusion criteria were: 1) patients with history of second-trimester loss or pre-term birth, 2) prophylactic cerclage, 3) McDonald's suturing technique, and 4) delivery in HSB. **Results:** A total of 224 patients were included. 92.8% (n=208) had less than three episodes of second-trimester loss or preterm birth. 62.9% (n=141) history-indicated cerclage and 33.5% (n=75) were both history and ultrasound-indicated cerclage. 65.6% (n=147) vs 31.3% (n=70) had vaginal delivery and caesarean section respectively. 82.1% (n=184) of babies born vigorous while 13.4% (n=30) resulted in fetal demise. 52.6% (n=118) successfully delivered at term and pregnancies were significantly prolonged as compared to the average gestational age of previous second-trimester pregnancy loss or preterm birth ($p<0.001$). Advanced maternal age (RR=1.33, 95% CI=1.02-1.76, p=0.038), grand-multiparity (RR=1.32, 95% CI=1.01-1.74, p=0.043), and peripartum infection (RR=1.33, 95% CI=1.02-1.77, p=0.036) were significantly associated with recurrence. Pre-operative cervical length, obesity, history of cervical trauma or surgery, use of micronized vaginal progesterone, oral progesterone, period of gestation when cerclage was performed and pre-existing medical co-morbidities were not statistically significant in determining the outcome of pregnancy. **Conclusion:** Prophylactic McDonald's cervical cerclage is still a beneficial procedure in the prevention of recurrent second-trimester loss and preterm birth. However, for patients with advanced maternal age and grand-multiparity, adjuvant non-invasive treatment should be considered.

Prospective double-blinded trial of transabdominal versus transvaginal cervical length screening for prevention of preterm births

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ABSTRACT

Introduction: This study aimed to determine the feasibility of transabdominal sonography as a primary modality for screening of short cervix in place of transvaginal sonography. **Methods:** Cervical length was measured prospectively in women attending the mid-trimester morphology screening by transabdominal (TA) followed by transvaginal (TV) sonography. Measurements were performed by credentialed maternal-fetal medicine specialists or fellows using the Fetal Medicine Foundation criteria and each was blinded to the other's findings. TA measurements were performed both pre- and post-void. **Results:** 222 women with a singleton pregnancy between 18-24 weeks were included in the study. Six women declined transvaginal sonography. Twelve women had TV measurements of less than 25 mm giving an incidence of the short cervix of 5.6%. Of these, three women already had a dilated cervical os on speculum examination (1.4%), requiring an emergency cerclage. Using 32 mm cut-off (TV) as a surrogate for 25 mm (TA), the sensitivity was 83.3% (51.6%-98.0%), specificity 70.0% (63.1%-76.2%) and the negative predictive value was 98.6% (95.1%-99.8%). Using a 36 mm the negative predictive value was 97.9%. Bladder filling and body habitus did not have a significant effect on the feasibility of TA measurements. **Conclusion:** TA ultrasound is a sensitive method to screen for short cervix in the mid-trimester using a cut-off of 32 mm, with a high negative predictive value. TV ultrasound can be avoided in almost 3 out of 4 women at this threshold. This will likely improve acceptance of routine mid-trimester cervical length screening in women.