

Comparative outcomes of cervical cerclage, arabin pessary and vaginal progesterone: A retrospective look at cervical support strategies

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ABSTRACT

Introduction: Preterm birth remains a leading cause of neonatal morbidity and mortality worldwide. Cervical insufficiency is a potentially preventable risk factor for spontaneous preterm birth. **Objective:** To compare the effectiveness of cervical cerclage, Arabin pessary and vaginal progesterone in the prevention of preterm birth and improvement of perinatal outcomes in women at risk of cervical insufficiency. **Materials and Methods:** An audit was done from year 2020-2024 in our centre using descriptive statistics. **Results:** Among those with a short cervix on ultrasound, 58.3% delivered before 32 weeks, 70% before 35 weeks and 66.7% before 37 weeks. In the history-based treatment group, 33.3% were delivered before 37 weeks. Among the progesterone group, 25.6% delivered before 32 weeks, compared to 38.2% in the Arabin pessary group and 37% in the cervical cerclage group. Perinatal mortality was 28% in the progesterone group, 32% in the cerclage group, and 38% in the Arabin group. Maternal infection was most prevalent in the cerclage group, 42.2%, while neonatal sepsis rates were similar across all three groups. We also analysed the average cost per treatment group. The Arabin pessary cost RM17,600 for 55 patients, the cerclage group RM64,000 for 46 patients (including inpatient stay and antibiotics), and the progesterone group RM12,000 for 39 patients over an average of 10 weeks of use. **Conclusion:** Overall, progesterone was the most cost-effective intervention, along with lower rates of perinatal mortality, preterm delivery and maternal infections. Ultrasound-based screening showed a better outcome in accurately identifying patients at risk of cervical insufficiency.