



## **Cervical pessary versus vaginal progesterone for the prevention of preterm birth in women with a twin pregnancy and a cervix <38 mm**

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### **Objective**

The aim of the study was to compare the effectiveness of cervical pessary and vaginal progesterone in the prevention of preterm birth and its consequences on neonates in women with a twin pregnancy and a short cervix.

### **Methods**

This randomised controlled trial (NCT02623881) was conducted at My Duc hospital, Viet Nam. Asymptomatic women with a twin pregnancy and a cervical length (CL) <38 mm were randomised to pessary or progesterone (400 mg per day). Primary outcome was PTB <34 weeks. Secondary outcomes were maternal and neonatal complications, including a composite of poor perinatal outcome. We pre-planned a subgroup analysis according to CL divided into four quartiles. Analysis was by intention to treat.

### **Results**

Between March 2016 and June 2017, 300 women underwent randomisation. PTB <34 weeks occurred in 24 (16.2%) women in pessary group and in 33 (22.1%) women in progesterone group (RR 0.73, 95% CI 0.46 to 1.18). The use of pessary significantly reduced the composite of poor perinatal outcome (26.5% versus 18.6%, RR 0.70, 95% CI 0.43 to 0.93). In women with a CL <25th percentile (<28 mm), pessary significantly reduced the PTB rate <34 weeks from 45.7% (16/35) to 21.3% (10/47) (RR 0.47 (0.24 to 0.90)). The composite of poor perinatal outcome was also significantly improved.

### **Conclusion**

Cervical pessary, as compared to vaginal progesterone, reduced the PTB <34 weeks and significantly improved neonatal outcomes in women with a twin pregnancy and a short cervix. For women with a very short cervix (<28 mm), the effectiveness of pessary over progesterone was more profound.