

Long-term development of children born to women with twin pregnancies treated with cervical pessary or vaginal progesterone: follow-up of a randomized controlled trial

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Abstract

Objective: To compare the effectiveness of cervical pessary and vaginal progesterone in improving long-term developmental outcomes of children born to women with twin pregnancies and mid-trimester short cervical length (CL). **Design:** Randomized controlled trial (RCT). **Setting:** My Duc hospital, Ho Chi Minh City, VietNam. **Population:** Children born to women in an RCT comparing cervical pessary and progesterone (NCT02623881). **Methods:** At or after 2 years of age, their parents completed a validated Vietnamese version of Ages & Stages Third Edition Questionnaires (ASQ-3) and Red flag questionnaire. **Main Outcome Measures:** Mean ASQ-3 scores, red flag signs, and the composite outcome of perinatal death or survival with any abnormal ASQ-3 score. **Results:** In original RCT, we randomized 300 women to pessary (n=150) or progesterone (n=150). After counting the number of perinatal death and lost to follow-up, in pessary group, 116 (82.8%) parents of 229 children returned the questionnaire versus 118 (82.5%) parents of 232 children in progesterone group. Mean ASQ-3 scores of the five skills, as well as red flag signs, did not differ significantly between the two groups. However, the percentage of children having died or having abnormal ASQ-3 scores in fine motor was significantly lower in the progesterone group (1.7% vs 6.1%, P=0.01). In an exploratory analysis, there were no significant differences in the composite outcome of perinatal death or survival with any abnormal ASQ-3. **Conclusions:** Cervical pessary and progesterone have a comparable effect on developmental outcomes in [?]24 months of children born to women with twin pregnancies and short CL.

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