Progesterone protects babies from preterm birth in women with a short cervix, research shows

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At around 20 weeks of pregnancy women with a short cervix have an increased risk of preterm birth. Preventing preterm birth in pregnant
women with a short cervix is a crucial step in protecting the health of the child. Research from Amsterdam UMC now shows that, in pregnant women with a short cervix around 20 weeks, progesterone is better than a cervical pessary at reducing the risk of severe preterm birth. This study was published in the *BMJ*.

"This is an important improvement that can contribute to the reduction of preterm births and the associated complications, such as an increased risk of infant mortality and long-term health problems for the child," says Eva Pajkrt, professor of obstetrics at Amsterdam UMC.

Preterm birth, defined as birth prior to 37 weeks, remains a serious problem with far-reaching consequences. Approximately 13.5 million children worldwide are born preterm each year. Children who are born preterm are at higher risk for, both physical and developmental, lifelong complications. Preventing preterm birth is therefore a major priority at the obstetrics department of Amsterdam UMC.

**Reducing extreme preterm birth**

The research team at Amsterdam UMC investigated the best treatment for women with a cervical length shorter than 25 mm at the 20-week ultrasound scan. A total of 25 centers across the Netherlands participated in this study. Women with a short cervix were eligible for randomization between progesterone and pessary.

The results of this study show that progesterone is more effective than a pessary in reducing extreme preterm birth. This study underlines the importance of measuring the length of the cervix during the 20-week ultrasound scan and informing women with a cervix shorter than 25 mm about the possibility of treatment with progesterone.
No significant difference

For women with a cervical length between 25 mm and 35 mm, there was no significant difference in the number of complications due to preterm birth between the group taking progesterone and the group using a pessary.

"Based on our study, we recommend measuring the length of the cervix of all pregnant women during the 20-week ultrasound. Women with a cervix shorter than 25 mm should be informed about the possibility of treatment with Progesterone," says Pajkrt.

The results of this study are of great importance for the health care system and can contribute to the reduction of preterm births and the associated complications. With major consequences for both the individual and for our society," Pajkrt concludes.

More information: Cervical pessary versus vaginal progesterone in women with a singleton pregnancy, a short cervix, and no history of spontaneous preterm birth at less than 34 weeks' gestation: open label, multicentre, randomised, controlled trial, The BMJ (2024). DOI: 10.1136/bmj-2023-077033

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