Cochrane Library

Cochrane Database of Systematic Reviews

Progestogen for treating threatened miscarriage (Review)

Wahabi HA, Fayed AA, Esmaeil SA, Al Zeidan RA

Wahabi HA, Fayed AA, Esmaeil SA, Al Zeidan RA.
Progestogen for treating threatened miscarriage.
Cochrane Database of Systematic Reviews 2011, Issue 12. Art. No.: CD005943.
DOI: 10.1002/14651858.CD005943.pub4.

www.cochranelibrary.com

WILEY

[Intervention Review]

Progestogen for treating threatened miscarriage

Hayfaa A Wahabi[1], Amel A Fayed[2], Samia A Esmaeil[1], Rasmieh A Al Zeidan[1]

[1]Chair of Evidence-Based Healthcare and Knowledge Translation, King Saud University, Riyadh, Saudi Arabia. [2]King Saud bin Abdul Aziz University for Health Sciences, Riyadh, Saudi Arabia; Alexandria University, Alexandria, Egypt

Contact address: Hayfaa A Wahabi, Chair of Evidence-Based Healthcare and Knowledge Translation, King Saud University, Riyadh, 11451, Saudi Arabia. umlena@yahoo.com.

Editorial group: Cochrane Pregnancy and Childbirth Group.
Publication status and date: New search for studies and content updated (conclusions changed), published in Issue 12, 2011.

Citation: Wahabi HA, Fayed AA, Esmaeil SA, Al Zeidan RA. Progestogen for treating threatened miscarriage. *Cochrane Database of Systematic Reviews* 2011, Issue 12. Art. No.: CD005943. DOI: 10.1002/14651858.CD005943.pub4.

ABSTRACT

Background

Miscarriage is a common complication encountered during pregnancy. The role of progesterone in preparing the uterus for the implantation of the embryo and its role in maintaining the pregnancy have been known for a long time. Inadequate secretion of progesterone in early pregnancy has been linked to the aetiology of miscarriage and progesterone supplementation has been used as a treatment for threatened miscarriage to prevent spontaneous pregnancy loss.

Objectives

To determine the efficacy and the safety of progestogens in the treatment of threatened miscarriage.

Search methods

We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (30 September 2011) and bibliographies of all located articles for any additional studies.

Selection criteria

Randomised or quasi-randomised controlled trials that compare progestogen with placebo, no treatment or any other treatment given in an effort to treat threatened miscarriage.

Data collection and analysis

At least two authors assessed the trials for inclusion in the review, assessed trial quality and extracted the data. Data were checked for accuracy.

Main results

We included four studies (421 participants) in the meta-analysis. In three studies all the participants met the inclusion criteria and in the fourth study, we included only the subgroup of participants who met the inclusion criteria in the meta-analysis. There was evidence of a reduction in the rate of spontaneous miscarriage with the use of progestogens compared to placebo or no treatment (risk ratio (RR) 0.53; 95% confidence interval (CI) 0.35 to 0.79). There was no increase in the rate of antepartum haemorrhage (RR 0.76; 95% CI 0.30 to 1.94), or pregnancy-induced hypertension (RR 1.00; 95% CI 0.54 to 1.88) for the mother. The rate of congenital abnormalities was no different between the newborns of the mothers who received progestogens and those who did not (RR 0.70; 95% CI 0.10 to 4.82).

Authors' conclusions

The data from this review suggest that the use of progestogens is effective in the treatment of threatened miscarriage with no evidence of increased rates of pregnancy-induced hypertension or antepartum haemorrhage as harmful effects to the mother, nor increased occurrence of congenital abnormalities on the newborn. However, the analysis was limited by the small number and the poor methodological quality of eligible studies (four studies) and the small number of the participants (421), which limit the power of the meta-analysis and hence of this conclusion.

PLAIN LANGUAGE SUMMARY

Progestogen for treating threatened miscarriage

Miscarriage occurs in about 15% to 20% of pregnancies. Threatened miscarriage is when a mother might be losing her baby at less than 20 weeks' gestation. The signs are vaginal bleeding, with or without abdominal pain, while the cervix is closed. The use of ultrasound scans in the management of bleeding in early pregnancy has improved the diagnosis and management, as attempts to maintain a pregnancy are likely to be effective only if the fetus is viable and has no chromosomal abnormalities. Once the cervix begins to open, pregnancy loss is inevitable. The loss can cause emotional problems including depression, sleep disturbances, and anger. Women who continue with their pregnancy after threatened miscarriage were found to have increased risk of antepartum haemorrhage, pre-labour rupture of the membranes, preterm delivery, and intrauterine growth restriction. Progestogen is an essential hormone both for establishing and maintaining pregnancy. It is therefore a possible treatment for threatened miscarriage. The review of trials located four randomised studies involving 421 women that compared the use of progestogens in the treatment of threatened miscarriage with either placebo or no treatment. The limited evidence suggests that the use of a progestogen does reduce the rate of spontaneous miscarriage. Two trials reported that treatment with progestogens did not increase the occurrence of congenital abnormalities in the newborns and the women did not have any significant difference in incidence of pregnancy-induced hypertension nor antepartum haemorrhage. Further larger studies are warranted for firmer conclusions.