Progesterone test can predict viability of pregnancy

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Measuring progesterone levels in women with pain or bleeding during early pregnancy is a useful way to help to discriminate between a viable and a non-viable pregnancy, according to research by University of Birmingham researchers published on bmj.com today

The results suggest that a low level of progesterone in these women can rule out a viable pregnancy in the vast majority of cases.

Vaginal bleeding or pain occurs in around a third of women in early pregnancy. Doctors use ultrasound to test whether it is a viable pregnancy or a non-viable pregnancy, such as a miscarriage or an ectopic pregnancy, but this can sometimes be inconclusive.

Some studies have suggested that a single progesterone measurement in early pregnancy may be a useful test, but results are conflicting.

So a team of UK and Dutch researchers set out to determine the accuracy with which a single progesterone measurement in early pregnancy can discriminate between a viable and a non-viable pregnancy.

They analysed the results of 26 studies involving 9,436 pregnant women. Seven studies looked at women with pain or bleeding and an inconclusive ultrasound assessment, while 19 studies looked at women with pain or bleeding alone.

Differences in study quality were taken into account to identify and minimise bias.

The results show that a single low progesterone measurement for women in early pregnancy presenting with bleeding or pain can discriminate between a viable and a non-viable pregnancy when an ultrasound investigation proves to be inconclusive.

For women with pain or bleeding who did not have an ultrasound, the progesterone test was less accurate in predicting viability of a pregnancy.

The researchers stress that low progesterone levels may occur in some viable pregnancies and, as such, “the test should be complemented by another test to increase its diagnostic accuracy.”

They also suggest that ‘this test is highly accurate when complemented by ultrasound and could be added to the existing algorithms for the evaluation of women with pain or bleeding in early pregnancy as it can accelerate diagnosis.’

- *Accuracy of single progesterone test to predict early pregnancy outcome in women with pain or bleeding: meta-analysis of cohort studies.*

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