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This press release is in support of a presentation by Dr Lucky Saraswat on Tuesday 16 June 2015 at the ESHRE annual meeting in Lisbon.

Endometriosis associated with a greater risk of complications in pregnancy

Rates of miscarriage and ectopic pregnancy found higher in nationwide analysis of more than 14,000 subjects

Lisbon, 15 June 2015: Women with endometriosis are at an increased risk of miscarriage and ectopic pregnancy, according to results of a huge nationwide study presented today. Moreover, women with a history of endometriosis whose pregnancies progressed beyond 24 weeks were found to be at a higher than average risk of complications, including haemorrhage (ante- and postpartum) and preterm birth.

"These results indicate that endometriosis predisposes women to an increased risk of early pregnancy loss and later pregnancy complications," said the study's first author Dr Lucky Saraswat, consultant gynaecologist from Aberdeen Royal Infirmary, UK.

The study was a nationwide cohort study using discharge data from all state hospitals in Scotland. Records of women with and without a confirmed diagnosis of endometriosis were cross-linked to their maternity records to evaluate pregnancy outcomes. A total of 14,655 women were included in the analysis, with their medical records followed-up for a maximum of 30 years between 1981 and 2010.

Details of the study will be reported this week at the Annual Meeting of ESHRE, held in Lisbon from 14 to 17 June.

Dr Saraswat explained that the impact of endometriosis - a relatively common condition in which cells from the lining of the uterus (endometrium) are found elsewhere in the pelvic area - is relatively unknown in pregnancy in general populations of women, with most studies performed in infertile women having assisted reproduction.(1) There have been few large studies so far to link population data with a laparoscopically confirmed diagnosis of endometriosis.

This latest study, however, compared the reproductive and pregnancy outcomes in 5375 women with endometriosis with those of 8280 women without endometriosis who were pregnant at the same time. After adjustments for age and previous pregnancy, results showed that women with endometriosis had a significantly higher risk of early pregnancy complications than the controls. This risk was 76% higher for miscarriage (odds ratio 1.76) and nearly three-times higher for ectopic pregnancy (OR 2.7).(2)

In women with a previous diagnosis of endometriosis the risks of adverse pregnancy outcomes, including ante- and postpartum haemorrhage and preterm birth, was also significantly increased.

The investigators report that the findings should now be taken into account when counselling women with endometriosis about their family plans and care during pregnancy.

Suggesting a possible explanation for the risk, Dr Saraswat said that endometriosis is associated with increased inflammation in the pelvis, and structural and functional changes in the lining of the uterus. "We believe such changes in the pelvic and uterine environment could influence implantation and development of placenta, predisposing them to adverse pregnancy outcomes," she said.

She added that women with a diagnosis of endometriosis should be counselled about the higher risks of miscarriage and ectopic pregnancy in the first trimester, "which warrants increased monitoring by ultrasound scans, and greater vigilance to identify potential complications such as bleeding and preterm delivery". "Data from this Scotland wide study," said Dr Saraswat, "should inform healthcare strategies for surveillance and early identification of complications in pregnancy in order to optimise outcomes in women and their babies."

Co-investigator Professor Andrew Horne, consultant gynaecologist at the MRC Centre for Reproductive Health of the University of Edinburgh and a member of ESHRE's Special Interest Group steering committee on endometriosis, said 60-70% of women with endometriosis will get pregnant spontaneously and have children. "However," he added, "we do not discuss what happens when they do become pregnant. These new findings suggest that we may need to warn women with endometriosis who become pregnant that they are at higher risk of both early and late complications in pregnancy, and may warrant increased antenatal monitoring."

Abstract O-122, Tuesday 16 June 10.15 WEST

Reproduction and pregnancy outcome in women with endometriosis: a Scottish national record linkage study

Notes

- I. The latest ESHRE guidelines on the management of endometriosis describe the condition as the "presence of endometrial-like tissue outside the uterus, which induces a chronic, inflammatory reaction", adding that "while some women with endometriosis can experience painful symptoms and/or infertility, others have no symptoms at all". The exact prevalence of endometriosis is unknown but estimates range from 2 to 10% of all women of reproductive age, and up to 50% of infertile women.
- See Dunselman GAJ, Vermeulen N, Becker C, et al. ESHRE guideline: management of women with endometriosis, Hum Reprod 2014; 29: 400-412.
- 2. In the general population one in five pregnant women are likely to miscarry. This study shows that in women with endometriosis this risk is increased to about one in four. Ectopic pregnancy is a rarer (one in 100) but potentially life threatening condition in the absence of timely intervention. This risk is more than doubled in women with endometriosis.
- * When obtaining outside comment, journalists are requested to ensure that their contacts are aware of the embargo on this release.

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