Study recommends ending heparin use for women with recurrent miscarriage and inherited thrombophilia

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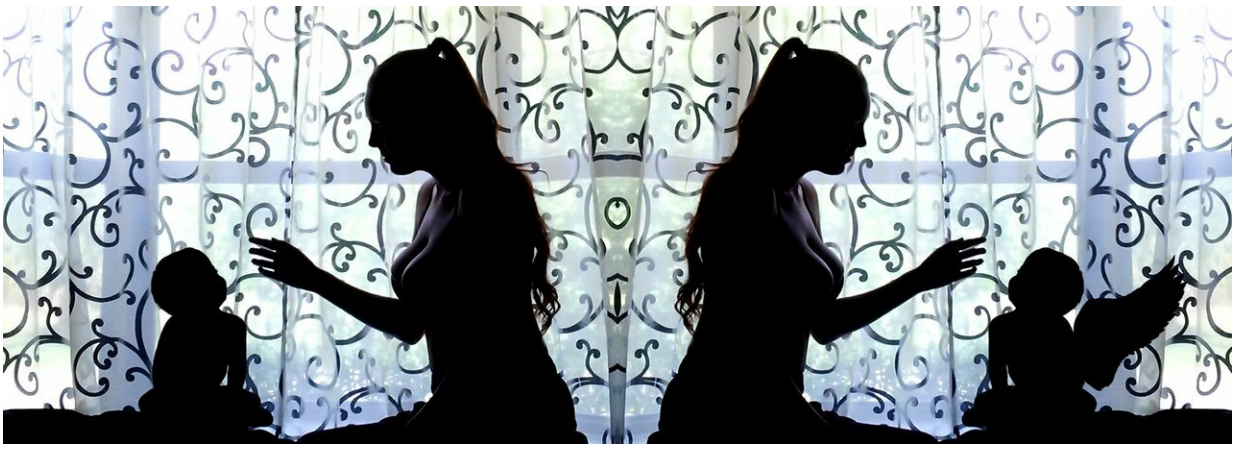

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A medication commonly prescribed to pregnant women with an inheritable blood clotting condition and a history of recurrent miscarriage does not help to reduce their miscarriage risk, a new international study led by UK researchers has found.

Researchers are now advising doctors to stop offering the anticoagulant Low Molecular Weight Heparin (heparin) to women and birthing people with inherited thrombophilia—a condition where the blood has an increased tendency to form clots in veins and arteries.

Despite the lack of evidence and guidance, doctors often prescribe heparin to women with recurrent miscarriage and inherited thrombophilia. It's costly for health services, and inconvenient for women who must inject the drug daily and are more likely to experience bruising as a result.

Stopping screening for inherited thrombophilia and ending the use of heparin as a treatment for these women could save the NHS around £20m per year, researchers say, with funding diverted to other services or treatments.

A new study published in *The Lancet* shows that a daily injection of heparin does not improve the chance of a live birth for women who have previously had 2 or more miscarriages and confirmed inherited thrombophilia, when compared to standard care.

Led by Professor Siobhan Quenby, Deputy Director of the Tommy's National Centre for Miscarriage Research and Professor of Obstetrics at the University of Warwick, the ALIFE2 trial recruited women from 40 hospitals in the UK, Netherlands, U.S., Belgium and Slovenia.

326 women with inherited thrombophilia and recurrent miscarriage were split into 2 groups—164 received heparin across the course of their pregnancy, starting from as soon as possible after a positive pregnancy test and ending at the start of labor. 162 were not offered the medication.

All women received standard obstetrician-led care and all women were encouraged to take folic acid.

The rate of live births for each group was roughly the same: 116 women (71.6%) treated with heparin had a baby born alive after 24 weeks' pregnancy. 112 women (70.9%) in the standard care group had a baby

born alive after 24 weeks' pregnancy.

The risk of other pregnancy complications, including miscarriage, babies with low birth weight, placental abruption, premature birth or pre-eclampsia, was about the same for both groups.

As expected, bruising easily was reported by 73 (45%) of women in the group taking heparin (mostly around injection-sites) and only 16 (10%) in the standard care group.

Professor Siobhan Quenby says, "Based on these findings, we don't recommend the use of Low Molecular Weight Heparin for women with recurrent pregnancy loss and confirmed inherited thrombophilia."

"We also suggest that screening for inherited thrombophilia in women with recurrent pregnancy loss is not needed. Patients and doctors will always value knowing about any factor which could be associated with recurrent miscarriage, but the association between inherited thrombophilia and recurrent miscarriage isn't proven: a recent review of research showed that thrombophilia is as common in the general population as it is in women with recurrent miscarriage."

"Many women with recurrent miscarriage around the world are tested for inherited thrombophilia and are treated with heparin daily. Research now shows that this screening is not needed, the treatment isn't effective, and it is giving false hope to many by continuing to offer it as a potential preventive treatment."

28% of women who participated in the trial lost their badly wanted pregnancies, and these unexplained losses will be the focus of further study, as our researchers continue to search for answers and treatment to prevent early pregnancy loss.

More information: Heparin for women with recurrent miscarriage and inherited thrombophilia: an international multicentre randomised control trial (ALIFE2), *The Lancet* (2023).

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