

MEDIA RELEASE

For immediate release

From: Kasey McCulloch, Media Manager, Mercy Health

Date: Friday 16 February 2018

Tablets could replace surgery to treat life-threatening pregnancy condition

In an exciting discovery, Translational Obstetrics Group (TOG) researchers based at Mercy Hospital for Women and the University of Melbourne have made a finding that has the potential to change the way we treat ectopic pregnancy. Researchers are investigating whether the life-threatening pregnancy condition can be treated with just a few tablets instead of surgery.

Ectopic pregnancies occur when an embryo implants outside of the womb, most commonly within the fallopian tube. Ectopic pregnancies are dangerous as they can cause the fallopian tube to burst and cause massive internal bleeding.

TOG Researcher Roxanne Hastie said about 5,000 Australian women experience an ectopic pregnancy each year and the condition is the leading cause of maternal death in early pregnancy.

"Currently, most ectopic pregnancies are treated surgically," Ms Hastie explained. "While this is safe, surgery still carries significant risks and is a costly option. The surgical removal of an ectopic pregnancy often involves removing the entire fallopian tube, which can impact on a woman's chances of falling pregnant again."

There is one medical alternative to surgery for these women — injection(s) of a chemotherapy drug called methotrexate. However, it isn't always effective and can only treat ectopic pregnancies detected at an early stage.

However, TOG researchers were amazed to discover vinorelbine — a tablet currently used to treat a variety of cancers with minimal side effects, and safely used on an ongoing basis — was 100 to 1,000 times more potent in the laboratory when compared to methotrexate.

Ms Hastie, lead author of the study to be published in the March issue compilation of international scientific journal *EBioMedicine*, said the research showed treating mice with a high dose of vinorelbine did not affect their ability to fall pregnant.

"We also found exposing human fallopian tube samples to vinorelbine did not damage them," Ms Hastie said.

"The remarkable possibility exists that the drug may be so potent just a few tablets could be enough to treat the majority of ectopic pregnancies without affecting a woman's fertility."

In light of these exciting findings in the laboratory, the team has collaborated with colleagues in New Zealand to begin a clinical trial to test whether oral vinorelbine alone could be used to treat ectopic pregnancy.

Dr Tu'uhevaha Kaitu'u-Lino, a senior author on the research paper said "the team was hopeful that this drug will allow women with an ectopic pregnancy to preserve their fertility and have future successful pregnancies".

"This kind of treatment option would be particularly beneficial to women living in remote or rural areas with limited access to specialised surgery," Dr Kaitu'u-Lino added.

This work was funded by the National Health and Medical Research Council, University of Melbourne and the Austin Medical Research Fund. The TOG also collaborated with the Queens Medical Research Institute at the University of Edinburgh, the Garvan Institute of Medical Research and Monash University.

– Ends –

For interviews, photos or filming opportunities, please contact:

Kasey McCulloch Media Manager Mercy Health Ph: 03 8416 7521 Mobile: 0477 720 337 Email: KMcCulloch@mercy.com.au