Predicting chances of pregnancy could become more accurate

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(Medical Xpress) -- Science may soon be able to more accurately predict how long a woman will remain fertile during her lifetime, thanks to research carried out at the University of St Andrews.

A survey of healthy women, carried out with experts from Edinburgh and Glasgow universities, has revealed the normal range of levels of the hormone anti-Mullerian Hormone (AMH) which reflects the activity of the ovaries right across lifespan.

The findings are likely to help younger women know whether they are likely to have an early or later menopause, and thus how long they may be fertile. Currently there is no accepted test that will reliably predict how many immature eggs remain for an individual woman. Many clinicians currently use the measurement of AMH as a surrogate measure of ovarian reserve.

The team from St Andrews, Glasgow and Edinburgh already knew that when levels of AMH fell below a certain level, IVF treatment became less successful. The study examined 3,200 samples from healthy girls and women to find out average levels of AMH. This will now allow fertility experts to tell how a woman's AMH level compares to the average for her age.

Tom Kelsey, a lecturer in the School of Computer Science at St Andrews said: "We knew that high AMH levels were good for conception but we could not back that up statistically.

"This study now provides us the level you would expect to find in a normal healthy woman.

"Before, we knew that once the levels of this hormone dropped below a certain level, it was hard to conceive."

Professor Richard Anderson, Professor of Reproductive Medicine at the University of Edinburgh said: "Predicting how long you might remain fertile can be very important, and it seems that AMH can help in this. Our data show how AMH changes with age in normal women."

Professor Hamish Wallace, a paediatric oncologist at the Royal Hospital for Sick Children in Edinburgh said: "Currently there is no accepted test that will reliably predict how many immature eggs remain for an individual girl or young woman.

"For a young patient with cancer who may be at high risk of infertility as a result of their proposed treatment, our study will assist the counselling of these vulnerable patients at diagnosis and may influence decisions regarding fertility preservation before they start their cancer treatment".

It is hoped in the future the St Andrews findings will help the development of tests which will be able to predict length of fertility.

Professor Scott Nelson of the University of Glasgow said: "We can now interpret a woman's or child's AMH with confidence and that is a huge step in ensuring we can accurately counsel patients regarding their potential reproductive lifespan."

Provided by University of St Andrews

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