

Hormone offers promise as fertility treatment

March 16 2009

New research suggests the hormone kisspeptin shows promise as a potential new treatment for infertility. The research is being presented at the annual Society for Endocrinology BES meeting in Harrogate. Scientists led by Dr Waljit Dhillon from Imperial College London, have shown that giving kisspeptin to women with infertility can activate the release of sex hormones which control the menstrual cycle. This research could lead to a new fertility therapy for women with low sex hormone levels.

Kisspeptin is a product of the KISS-1 gene and is a key regulator of reproductive function. Animals and humans lacking kisspeptin function do not go through puberty and remain sexually immature. In a previous study, Dr Waljit Dhillon and colleagues showed that kisspeptin [treatment](#) leads to the production of [sex hormones](#) in fertile [women](#); they have now extended their research to look at the effects of kisspeptin in women whose periods have stopped due to a [hormone imbalance](#).

In this study, funded by the Medical Research Council, The Wellcome Trust and National Institute for Health Research, a group of ten women who were not menstruating and infertile, were injected with either kisspeptin (n=5) or saline (control, n=5). Blood samples were then taken to measure their levels of luteinising hormone (LH) and follicle stimulating hormone (FSH), two sex hormones essential for ovulation and fertility. Kisspeptin led to a 48-fold increase in LH and 16-fold increase in FSH, when compared to the control treatment.

This is the first study to show that kisspeptin can stimulate sex hormones in women with [infertility](#) and presents kisspeptin as a potential new therapy for human infertility.

Researcher Dr Waljit Dhillon from the Department of Investigative Medicine at Imperial College London said:

"Infertility is a devastating condition that affects millions of couples worldwide. This research shows that kisspeptin offers huge promise as a treatment for infertility. From our previous results, we know that kisspeptin can stimulate release of reproductive hormones in healthy women. We have now extended this research to show that kisspeptin treatment has the same effect in women with infertility. In fact, our current data show that kisspeptin causes a greater increase in luteinising hormone production in non-menstruating women, than that in [fertile women](#) in the previous study. This is a very exciting result and suggests that kisspeptin treatment could restore reproductive function in women with low sex hormone levels. Our future research will focus on determining the best protocol for repeated kisspeptin administration with the hope of developing a new therapy for infertility."

Source: Society for Endocrinology

Citation: Hormone offers promise as fertility treatment (2009, March 16) retrieved 7 May 2024 from <https://medicalxpress.com/news/2009-03-hormone-fertility-treatment.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--