



Surfing for Knowledge

ESHRE: Middle-Age Fertility May Be in the Genes.

Carrying certain genes may be the key to slowing ovarian aging and preserving fertility after age 45. A study of 250 women older than 45 who conceived spontaneously and had successful pregnancies found that having a specific genetic profile might explain why these women remained fertile at an age when many women are beginning menopause. The study participants also had a large number of children and also a low miscarriage rate. The investigators identified 716 genes that were different in the highly fertile group compared with the controls. The eight super-fertile women had a significant change in expression of 12 genes that are involved in DNA repair and apoptosis. These included increased expression of the genes ERCC1, Q9UNK7, RAD17, RAD1B, RBBP4, REC1, RPA1, FEN1, and RAD23A and decreased expression of GTF2H2, NHL, and UBE2B.

Comparison of tamoxifen and clomiphene citrate for ovulation induction: a meta-analysis

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Four trials were included. After pooling all the trials, the use of tamoxifen or clomiphene citrate resulted in similar ovulation rates [odds ratio (OR) 0.755, 95% confidence interval (CI) 0.513-1.111]. There was no benefit of tamoxifen over clomiphene citrate in achievement of pregnancy per cycle (OR 1.056, 95% CI 0.583-1.912) or per ovulatory cycle (OR 1.162, 95% CI 0.632-2.134). CONCLUSIONS: Clomiphene citrate and tamoxifen are equally effective in inducing ovulation. Although data regarding pregnancy rates and outcome are limited, there does not appear to be a significant benefit of one medication over the other.

A First: Baby Born After Ovarian Transplant Restores Fertility.

A 24-year old woman treated with an ovarian-tissue transplant for premature ovarian failure has delivered a healthy baby girl. Sherman J. Silber, M.D., of St. Luke's Hospital and colleagues reported that the woman resumed normal menstrual cycles within three months of transplantation with ovarian tissue harvested from her monozygotic twin. "The patient conceived naturally and her pregnancy progressed uneventfully," the authors wrote in a New England Journal of Medicine brief report that was released online and published in the July 7 print issue. "This, to our knowledge, is the first case of transplantation of ovarian tissue from one person to another resulting in a birth," said the editors of the NEJM in explaining their decision to release the study early. The donor underwent laparoscopic removal of her left ovary under general anesthesia. The ovarian cortical tissue was trimmed to a thickness of 1 to 2 mm. The recipient underwent a minilaparotomy through a 3.5-cm incision above the pubis. The cortex of each streak ovary was resected, exposing the entire raw surface of the medulla. A section of approximately one third of the donor ovarian cortex was laid over the medulla of each ovary in the recipient and sutured onto the medulla. The transplant recipient was diagnosed with premature ovarian failure at age 14 and for the 10 years prior to the transplant she had no menses. When she was 20 years old, a laparoscopic examination and ovarian biopsy revealed atrophic, elongated ("streak") gonads with no follicles and a small uterus with an otherwise normal reproductive tract. This suggests that young women who are sterilized as the result of cancer treatments may have fertility restored with ovarian transplantation.

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