eReview
LATEST DEVELOPMENTS IN FAMILY FRIENDLY RESEARCH
INSTITUTE OF MARRIAGE AND FAMILY CANADA

No. 8 JANUARY 31, 2007

The **eReview** provides analysis on public policy relating to Canadian families and marriage. Below please find a commentary on the issues facing the newly appointed board of Assisted Human Reproduction Canada.

Women's health and freedom of information

Will the newly-staffed Assisted Human Reproduction Canada fully disclose information on fertility?

By Kate Fraher, Researcher, Institute of Marriage and Family Canada

The wait is over. Late last year, the government appointed a board, president and chairperson to Assisted Human Reproduction Canada and with this the agency can finally begin its work.

This article is the first in a series that aims to uncover some of the missing pieces of the assisted human reproductive technologies (ARTs) debate: the effect of fertility treatments on women's health, how donor-conceived adults can inform our understanding of ART and the need for ART to respect human life, even in the earliest stages. This article will deal exclusively with women's health.

Surveys show that women—even highly educated women—are ill informed about their own fertility. Like any medical procedure, fertility treatments involve risks and uncertain outcomes. [1] The question is - how risky? How uncertain? And are women aware of the risks?

What are the possible short-term risks of fertility treatment?

The most immediate health risk for women undergoing fertility treatments are those posed by ovulation drugs or 'fertility drugs.' [2] Fertility drugs can cause ovarian hyperstimulation syndrome (OHSS) which involves swelling of the ovaries. Patients with moderate hyperstimulation experience abdominal pain and sometimes nausea and vomiting. In more serious cases, fluid accumulates in the abdominal cavity and chest, causing swelling and shortness of breath. [3] Severe cases include complications such as blood clotting disorders, kidney damage and twisted ovary (ovarian torsion). [4] A report by Delvigne and Serge in 2002 found that the prevalence of the severe form of OHSS is small, ranging from .5 to 5%. Yet the report states that women should not ignore the associated complications. The authors write, "Nevertheless, as

LINKS

FAMILYindex
A database of family research

IMFCanada Home Page

eReview
Previous eReviews

this is an iatrogenic complication of a non-vital treatment with a potentially fatal outcome, the syndrome remains a serious problem for specialists dealing with infertility." [5] A report by the American Society for Reproductive Medicine reveals that at least 30% of patients undergoing ovarian stimulation suffer mild cases of OHSS. [6]

Apart from ovarian hyperstimulation, the process of egg extraction carries with it "a slight risk of bleeding, infection, and damage to the bowel, bladder, or blood vessel." [7] When more than one embryo is transferred to the uterus, the chance of multiple pregnancy increases, bringing a host of possible complications to the pregnancy. [8]

What are the possible long-term risks of fertility treatment?

There have been concerns that the use of fertility drugs could lead to an increased risk of ovarian cancer. While the findings are inconsistent, research has yet to rule out the link. [9] In a study of women undergoing fertility treatment by the University of Toronto's Department of Obstetrics and Gynecology, over 50% were unaware of studies showing increased lifetime risks of ovarian cancer after the use of fertility drugs even though two-thirds of them had taken fertility drugs. [10] The study commented that "the faith of women in the safety and efficacy of fertility treatment, and in their own and their doctors' control over the onset of ovarian cancer and ability to successfully treat it, is misguided when one considers the data." [11]

"THE FAITH OF WOMEN IN THE SAFETY AND EFFICACY OF FERTILITY TREATMENT, AND IN THEIR OWN AND THEIR DOCTORS' CONTROL OVER THE ONSET OF OVARIAN CANCER AND ABILITY TO SUCCESSFULLY TREAT IT, IS MISGUIDED WHEN ONE CONSIDERS THE DATA." [11]

What are women's chances of success with fertility treatment?

On November 23, 2006 the Canadian Fertility and Andrology Society, an advocacy group which aims to educate in the area of reproductive health, released its annual report on assisted reproduction success rates in Canada. This showed an overall birthrate of 24% per IVF cycle started. [12] For women under the age of 35, the live birth rate per cycle started was 32%; for women aged 35-59 the overall birthrate dropped to 22%. For women 40 years and older, the overall birthrate was a mere 10%.

This information combined with other surveys and studies reveals a huge discrepancy between actual success rates and women's predictions about their personal chances of pregnancy with fertility treatment. The University of Toronto study found in 2001 that over 55% of women did not know their own probability of pregnancy using IVF, or thought their chances were 50% or greater. Fully 15% of women held significantly inflated views of their chances of pregnancy through IVF: they believed the chance of a pregnancy

with treatment was 74% or greater. The study concludes, "In general, women rated their personal chances of success with fertility treatment to be greater than that for women in general." [13]

And in a University of British Columbia Reproductive Health Survey released in November 2006, less than half of the female students surveyed knew that age is the main predictor in determining fertility and about 75% and thought the chances of a 40-year-old woman getting pregnant were 30%. [14]

How can women prevent infertility?

The Infertility Awareness Association of Canada, a Montreal based group that aims to educate about infertility, knows that age is one of the most common causes of infertility today as women's fertility declines significantly after their early thirties. [15] Other factors that can cause infertility include smoking, drinking, low body weight, obesity, and sexually transmitted diseases. [16] Yet women appear to be unaware that their chances of a successful pregnancy decrease with age. With more knowledge about the causes of infertility, it is possible that fewer women would need to rely on fertility treatment in order to become pregnant.

What now, Agency?

Canadian women do not have enough information to make informed decisions regarding their reproductive health. The Agency is perfectly poised to ensure full disclosure of information about possible outcomes of fertility treatment including short and long-term health risks, the chance of getting pregnant and women's reproductive health in general. Fertility doctors working in private clinics with financial incentives should not be solely responsible for informing women. The Agency can partly assume a role as educator about the effects and outcomes of fertility treatment. The big question is whether they'll expose honest, unbiased information—and for that we can only wait and see.

---

[1] Of the many types of fertility treatments available, the greatest concern surrounds those that involve fertility drugs. The side effects can be life threatening and controversy still exists on whether there is a long-term risk to women of developing cancer following the use of fertility drugs.

[2] Fertility drugs increase the number of eggs that mature and are released in a female's monthly cycle. This can increase her chances of pregnancy when trying to conceive naturally or through other methods such as in-vitro fertilization.

In-vitro fertilization involves fertilizing a woman's egg(s) outside of the body by combining the egg and sperm in a laboratory dish. The process requires the removal of mature eggs from the ovaries. To get the most out of the extraction procedure, fertility drugs are administered to stimulate the production of multiple eggs for harvesting. Through a process called transvaginal ultrasound aspiration, an ultrasound probe is used to identify mature egg follicles in the ovaries and a suction needle guided through the vagina to the follicles extracts the eggs. Once the eggs have been fertilized, they are then transferred back into the woman's uterus.

For further information on the procedure, see the American Society for Reproductive Medicine's Assisted Human Reproductive Technologies: A Guide for Patients published in 2003. Retrieved online January 31, 2007 from http://www.asrm.org/Patients/patientbooklets/ART.pdf

[3] Ibid.

[4] Retrieved from
http://www.dukehealth.org/Services/Fertility/Resources/Diagnoses/OvarianHyperstimulationSyndrome

[5] Delvigne, A. and Rozenberg, S. (2002) Epidemiology and prevention of ovarian hyperstimulation syndrome (OHSS): a review. Human Reproduction Update, 8(6): 559-577. Retrieved from
http://humupd.oxfordjournals.org/cgi/reprint/8/6/559

[6] American Society for Reproductive Medicine. (2003). Assisted Human Reproductive Technologies: A Guide for Patients. Retrieved online January 31, 2007
http://www.asrm.org/Patients/patientbooklets/ART.pdf

[7] Ibid.

[8] According to the Society for Assisted Reproductive Technology, "Multiple gestation poses an increased risk for both mother and baby. For the mother, there is an increased chance of hypertension, blood clots, preterm labor, toxaemia, and other pregnancy complications. For the babies, there is an increased chance of prematurity and associated problems, and a slight increased risk of birth defects." Retrieved from http://www.sart.org/Guide_GonadotropinStimulation.html

[9] See Mahdavi, A. et al. (2006). *Induction* of Ovulation and Ovarian Cancer: A Critical Review of the Literature. *Fertility & Sterility,* 85: 819-26. The American Society for Reproductive Medicine. Retreived online January 31, 2007 from
http://www.asrm.org/Professionals/Fertility&Sterility/induction_ovulation_ovarian_cancer.pdf

[10] Stewart, D.E. et al. (2001). The Disconnect: Infertility Patients' Information and the Role They Wish to Play in Decision Making. *Medscape General Medicine,* 3 (4).

[11] Ibid.

[12] Retrieved online January 31, 2007 from http://www.cfas.ca/2006_Press_Release.pdf

[13] Stewart, D.E. et al. (2001). The Disconnect: Infertility Patients' Information and the Role They Wish to Play in Decision Making. *Medscape General Medicine,* 3 (4).

[14] Cobb, Chris. (2006, November 17). Delay Takes Toll on couples' Fertility. *National Post.* Page A8

[15] Zhang, Aina. Overcoming Age Related Infertility with Traditional Chinese Medicine. Retrieved online January 26, 2007 from http://www.iaac.ca/en/library/alt-medicine/overcoming-age-related-infertility-with-traditional-chinese-medicine

[16] The Royal Commission on Reproductive Technologies. (1993). Proceed with Care: Final Report of the Royal Commission on New Reproductive Technologies.