

Are Hypothyroidism and Breast Cancer Linked?

BY FRAN LOWRY
Orlando Bureau

Hypothyroid postmenopausal women appear to be at significantly higher risk of developing breast cancer, Argentinian researchers reported in a poster presentation at the annual meeting of the North American Menopause Society.

In the prospective study, Dr. Maria Franchina and her colleagues of the Preventive Medical Center in Buenos Aires found a high incidence of



breast cancer among postmenopausal women who were newly diagnosed with autoimmune hypothyroidism or whose hypothyroidism was poorly controlled because they had stopped taking their thyroid medication.

Among a total of 180 hypothyroid women attending their clinic between January 2006 and June 2007, 33 (18%) had breast cancer, compared with 15 (5%) of 300 euthyroid women, the investigators reported.

The median age of the women was 52.9 years, and all were within 1 year of their last menstrual period.

There could well be an association between the two phenomena, but such a finding is controversial.

DR. FRANCHINA

More hypothyroid than euthyroid women had thyroid cancer, 8% vs. 1%, but this difference was not statistically significant, Dr. Franchina said. (See accompanying graphic.)

The researchers also compared the prevalence of endometrial, thyroid, and ovarian cancers between the two groups, but did not find any significant differences in those measures.

“Growing breasts require several hormones, such as prolactin, estrogen, progesterone, adrenal steroids, insulin, growth hormone, and thyroid hormones, so there could well be an association between low thyroid hormone and breast cancer,” she said in a telephone interview.

But she added that such an association is controversial.

“There have been many discrepant results reported in the literature, with some researchers reporting that thyroid diseases are common in women with breast cancer, and others reporting just the opposite.”

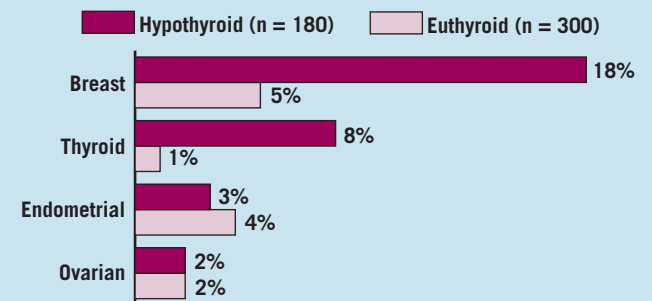
In truth, whether thyroid autoimmune

diseases actually increase a woman's risk for developing cancer is still not known, Dr. Franchina concluded.

The study generated a lot of interest among North American Menopause Society delegates, Dr. Franchina said.

She and her associates are planning a correlative study to further investigate this finding. ■

Cancer Prevalence in Postmenopausal Women



Source: Dr. Franchina

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Medical and Surgical Abortions Are Equally Safe for Future Pregnancies

BY MICHELE G. SULLIVAN
Mid-Atlantic Bureau

Medically induced abortions were just as safe as surgical abortions with regard to the outcomes of future pregnancies, according to a large study conducted in Denmark.

The population-based study of almost 12,000 pregnancies that occurred subsequent to elective abortions in the first trimester showed no significant differences in the risk of ectopic pregnancy, preterm birth, miscarriage, or low birth weight, reported study authors Dr. Jun Zhang, of the National Institute of Child Health and Human Development, and colleagues (N. Engl. J. Med. 2007;357:648-53).

The investigators examined data on all women living in Denmark who had undergone an abortion for nonmedical reasons between 1999 and 2004 and had at least one subsequent pregnancy between 1999 and 2005. The first pregnancy after each abortion was included in the study.

Data for each of the 11,682 women in the study were linked to the Danish National Birth Registry and National Patient Registry.

Of the 11,814 pregnancies in these women, 9,104 were preceded by a surgical abortion, and 2,710 were preceded by a medical abortion in-

volving mifepristone and misoprostol, or misoprostol alone.

Most of the subsequent pregnancies (85%) resulted in live births; there were 1,486 miscarriages (13%), 274 ectopic pregnancies (2%), and 36 stillbirths (0.3%).

The incidence of ectopic pregnancy, miscarriage, preterm birth (defined as gestation less than 37 completed weeks), and low birth weight (defined as less than 2,500 g) was not significantly different between the groups, even after the investigators adjusted for maternal age, parity, interpregnancy interval, maternal residence, cohabitation status, and gestational age at the time of the abortion. (See table below.)

There were too few stillbirths to make a meaningful comparison between groups, the authors said.

The findings differ from those of a previous study, which showed a significant association between medical abortion and ectopic pregnancy (Am. J. Epidemiol. 2003;157:185-94).

However, that case-control study relied on self-report of abortion and pregnancy outcomes, rather than a clinical registry, Dr. Zhang and coauthors pointed out.

A recent Chinese multicenter cohort study found results similar to the Danish study, the authors noted. That study of almost 10,000 women

found no difference in low birth weight or preterm birth between women who had a previous surgical or medical abortion (Am. J. Epidemiol. 2004;160:110-7).

None of the investigators in the Danish study reported conflicts of interest relative to the research. ■

Vitrification Superior to Slow Freeze in Two Studies

BY HEIDI SPLETE
Senior Writer

WASHINGTON — Increased pregnancy rates and oocyte survival rates support the superiority of vitrification over the traditional slow-freeze cryopreservation technique, based on the results from several studies presented at the annual meeting of the American Society for Reproductive Medicine.

In vitrification, blastocysts briefly are immersed in a medium and then quickly frozen using liquid nitrogen. The debate over which method of cryopreservation yields the best clinical results continues, but emerging data from studies of vitrification appear to favor the fast-freezing method.

Early outcomes data from one study of 41 women showed that blastocyst vitrification yielded significantly more pregnancies than embryos that had been slow frozen.

In this study, Alicia L. Clifford and her colleagues at the Center for Reproductive Biology of Indiana in Indianapolis compared pregnancy rates from 30 patients who received embryos from slow-frozen eggs with 11 patients who received embryos from vitrified eggs.

Overall, 4 of 10 women in the vitrification group (40%) had positive fetal cardiac activity at 6 weeks, compared with 4 of 29 women (14%) in the slow-freeze group.

Fetal cardiac activity data were pending for one woman in each group at the time of the poster presentation.

The mean age was similar be-

tween the slow-freeze and vitrification groups (33 years vs. 31 years), and each group had an average of three embryos transferred.

In a second study of 84 oocytes from 42 women, oocyte survival rates were significantly higher when they were frozen using vitrification than slow frozen. Dr. Susan Sarajari and colleagues at the University of California, Los Angeles, and her colleagues thawed 44 oocytes that were slow frozen and 40 oocytes that were frozen using vitrification after 2 days in order to test their viability.

Overall, 17 of the 40 vitrified oocytes survived (42%), compared with 11 of the 44 slow-frozen oocytes (25%). The surviving oocytes from each group were selected for in vitro maturation (IVM), incubated, and then re-assessed after 24 hours.

“The number and percent of oocytes that matured by IVM was also higher in the vitrification group,” the researchers noted, although the difference was not statistically significant (eight oocytes in the vitrification group vs. five in the slow-freeze group).

Cryopreservation of immature oocytes by any method has clinical application potential for women at risk of losing ovarian function for any reason and for women who simply wish to preserve their fertility, but larger outcome studies are needed to confirm the most effective techniques.

None of the authors of either study had any financial conflicts to disclose. ■

Pregnancy Outcomes After Surgical and Medical Abortions

	Surgical Abortion* (n = 9,104)	Medical Abortion (n = 2,710)	Adjusted Relative Risk
Ectopic pregnancy	2.3%	2.4%	1.07
Miscarriage	12.7%	12.2%	0.87
Preterm birth	6.7%	5.4%	0.88
Low birth weight	5.1%	4.0%	0.82

*Reference group.

Note: Based on a study of women who had an abortion for nonmedical reasons.

Source: New England Journal of Medicine

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