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High Risks Associated With Egg Donation to Women With Turner's Syndrome, Research Reveals

ScienceDaily (May 4, 2011) — Pregnancy via egg donation for women with Turner's syndrome is potentially risky, both for the mother and the child, according to a multi-centre study presented at the European Congress of Endocrinology in Rotterdam.

Turner's syndrome is a chromosomal disorder which affects approximately 1 in 2500 women. Most women are born with two X chromosomes, but a woman with Turner's syndrome has only a single X chromosome, which leads to a variety of health problems. These include a greater tendency to heart disease, skeletal problems, and short stature (which is often treated with growth hormone). In addition, women who grow up with Turner's syndrome are normally infertile.

Some women with Turner's syndrome have been able to bear children by receiving donated eggs (oocyte donation), leading to the possibility that they will be able to raise a family. However, new work led by researchers from the University of Nice in France now shows that this is a high-risk option.

Professor Patrick Fénichel led a multi-centre study which looked at the results of Turner pregnancies in almost all the French centres for assisted reproduction carrying out egg donation. They followed the pregnancies of 93 mothers who had Turner's syndrome. They found that in 37.8% of pregnancies, mothers suffered from pregnancy-associated hypertensive disorders; these included preeclampsia in 54.8% of cases, and severe eclampsia in four patients. In the babies of Turner's mothers, 38.3% were born premature and 27.5% of the babies suffered from *in-utero* growth retardation. Two mothers died from rupture of the aorta after giving birth by caesarean section, and a fetal death was linked to eclampsia in the mother. Only 40% of pregnancies were associated with a normal outcome for both the mother and child.

Researcher Professor Patrick Fénichel commented:

"Most women with Turner's syndrome are infertile. If you can't have a baby it can be very distressing, and donated eggs can give these women a chance of raising a family. However, this work shows that for women who have Turner's syndrome, pregnancy is a high-risk option, both for the mother and the baby. The mothers have a significantly increased risk of illness and even death by aortic dissection and eclampsia, but in addition the fetus is also at risk of problems, such as growth problems following pre-eclampsia, and stress. Only 40% of the pregnancies we studied produced an absolutely normal outcome for both mother and baby.

"In these circumstances, we need to be very cautious indeed about recommending mothers to undergo egg donation. It is important that women with Turner's syndrome who undergo egg donation have their cardiac function monitored before, during and after pregnancy, and that they are very closely monitored by their physician throughout and after pregnancy."

Professor Fénichel went on to state, "My group and the French oocyte donation research group will now concentrate on understanding if eclampsia is linked only to Turner's syndrome or also to egg donation itself. We will also look at ways in which better monitoring during pregnancy, delivery and the immediate post-partum period in an appropriate hospital centre might improve the outcomes of pregnancy in Turner's mothers."

Story Source:

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