

Pregnancy Using Oocyte Donation in Women with Turner Syndrome: A Survey of Assisted Reproductive Technology (ART) Providers to Examine the Risk for Aortic Dissection

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Turner syndrome (TS) is a well-known genetic syndrome in which there is an absent (45, X) or structurally abnormal X chromosome which may occur alone or in a mosaic form with a normal chromosome complement. There is general agreement that there is an increased risk of aortic dissection and rupture among women with Turner syndrome (TS) during pregnancy conceived using oocyte donation. Multiple case reports demonstrate this occurrence and small cohort studies have led to the formation of rigorous screening recommendations for these women undergoing treatment for infertility using oocyte donation. The purpose of this study was to assess (1) the current practice of cardiac screening during treatment of women with Turner syndrome using oocyte donation, (2) the type and frequency of the risk factors associated with aortic dissection during pregnancy. An online survey was distributed to the approximately 400 assisted reproductive technology (ART) centers that are members of the Society of Assisted Reproductive Technology (SART) using SART's distribution list. From 92 (23%) responding centers, the frequency of aortic dissection was 0.44% (1/228). Pregnancy risk factors about this single case, in which aortic dissection occurred one year post-partum, were not provided; the study design did not allow re-contact of either the physician or patient. It was found that many centers have rigorous screening practices in place consistent with the recommendations set forth by the American Society of Reproductive Medicine. Additionally, many participants indicated a strong desire for information on the topic. It is hoped that the results of this study will inspire additional studies which might survey the practice of obstetric and reproductive specialists, evaluate the practice of using a surrogate mother to achieve pregnancy, and conduct prospective cohort studies to understand the risks for women with Turner syndrome who undergo ART.