

Henriette Magelssen, Oslo 2008. *Reproduction and pregnancy outcome in cancer survivors*

Increased incidence and survival of cancer has yielded a large group of cancer survivors. Future fertility and reproduction, including obstetric and perinatal outcome, are some of the main points of concern for individuals diagnosed with cancer during young adult life. Cancer and its treatment threaten male fertility and may reduce the chances of post-treatment paternity. The present study is based on the patient registry at the Norwegian Radiumhospital merged with data from the Medical Birth Registry. The principal aim was to study the impact of cancer and its treatment on reproduction and pregnancy outcome in patients diagnosed during adolescence and young adulthood and comparing reproduction and pregnancy outcomes with the general population.

About 50% of the young and middle-aged patients newly diagnosed with testicular cancer are interested in pre-treatment semen cryopreservation if offered. Seven percent later use their frozen semen for IVF to achieve fatherhood, with success in about 50%.

First-time post-diagnosis parenthood probabilities vary with gender, age and type of diagnosis, being highest for young male cancer survivors. Survivors of uterine choriocarcinoma, however, display the highest 10-year probability of post-diagnosis parenthood (64%). Male cancer survivors aged 35 years have an approximately 65% probability of overall first-time parenthood, similar to the general population. For female cancer survivors, the comparable figure is 66%, significantly reduced compared to the general population (79%).

Pregnancies in women with a prior cancer diagnosis have a 2-3-fold increased risk of low birth weight children and preterm births, and should be considered as high-risk pregnancies. There might be increased risk of congenital anomalies in first post-diagnosis infants fathered by male cancer survivors and increased perinatal mortality in first births to female cancer survivors.

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