Male cancer survivors less likely to reproduce

February 16 2016

Men who have survived cancer often have difficulties having children, a study of all Norwegian men born between 1965 and 1985 shows. Credit: Colourbox

Young male cancer survivors are three times as likely to turn to assisted fertilization to have children as males without a cancer diagnosis. This knowledge makes it possible to develop concrete treatment protocols, which affect fertility to a lesser degree.

Measures like preserving sperm before starting treatment can be optimised. Close to 80 per cent of those diagnosed during childhood or adolescence will survive their cancer.

According to a Norwegian study of male cancer patients diagnosed under the age of 25, many male cancer patients have problems reproducing. The researchers hope this new knowledge may contribute to changing future treatment of male cancer patients.

A study of all Norwegian men born between 1965 and 1985 shows that male cancer survivors are less likely to have children than those without a cancer diagnosis.

"These finds are important for male cancer survivors, seeing as we can identify groups at risk of having reproduction problems," says Maria Winther Gunnes, PhD candidate at the Department of Global Public Health and Primary Care at the University of Bergen (UiB) and lead author of a recently published article in the *British Journal of Cancer*.

May alter future cancer treatment

This knowledge makes it possible to develop concrete treatment protocols which affect fertility to a lesser degree. In addition, measures like preserving sperm before starting treatment can be optimised. Male cancer survivors are three times as likely to turn to assisted fertilization to have children as males with no cancer diagnosis.

Researchers from UiB and other institutions have sought to find out what cancer at a young age means for reproduction and marriage among male survivors of cancer in childhood, adolescence and young adulthood.

The number of survivors after treatment of cancer in childhood, adolescence and young adulthood has steadily increased over the past

decades, due to improvements in treatment regimens and supportive care. It is now expected that close to 80 per cent of those diagnosed with cancer during childhood or adolescence will survive their cancer and subsequent treatment.

Cancer does not affect children

The study demonstrates reduced paternity among male cancer survivors, especially among survivors of testicular cancer, brain tumours, lymphoma, leukaemia and bone cancer.

There is also less likelihood that cancer survivors get married than their peers without a cancer diagnosis.

"It is important to be able to assure young, male cancer survivors that their illness and treatment will not have a negative impact on their own children," says Gunnes.

The study shows that children of those who have survived cancer do not have an increased risk of perinatal death or congenital anomalies. Similarly, there were no indications of increased risk of preterm birth or low birth weight.

The study cohort consists of all Norwegian males born between 1965 and 1985, registered in compulsory national registries in Norway. Compulsory national registries are not prone to selection bias and have given the researchers a large sample size, fully complete on a national level.

More information: M W Gunnes et al. Reproduction and marriage among male survivors of cancer in childhood, adolescence and young adulthood: a national cohort study, *British Journal of Cancer* (2016). DOI: 10.1038/bjc.2015.455

Provided by University of Bergen