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Some cancer immunotherapy treatments may damage fertility: Australian study

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Researchers seek appropriate interventions that can preserve fertility and ovarian function

Researchers from Monash University, Australia have discovered that some immunotherapy treatments used to treat cancer can cause fertility damage.

It means these treatments could affect the future fertility and hormonal health of female cancer survivors, prompting experts to call for more research and preventative measures, such as freezing eggs.

Led by the Biomedicine Discovery Institute at Monash University and the Peter MacCallum Cancer Centre, the pre-clinical trial showed that immune checkpoint inhibitors, a common type of immunotherapy drug, resulted in permanent damage to mouse ovaries and the eggs stored inside.

Traditional cancer therapies, such as chemotherapy and radiotherapy, are already linked to permanent, negative side effects on the ovaries. This can lead to infertility and premature menopause in young girls and women. Until now the potential fertility side effects of immunotherapy, an emerging and increasingly common cancer treatment that stimulates the immune system, have been unknown.

The study found that a type of immunotherapy called immune checkpoint inhibitors, which ‘release the brakes’ on the immune system to enhance a patient's ability to fight cancer, could impair immediate and future fertility.

Its authors said studies in female patients were now needed to investigate the findings. In the meantime, fertility preservation through egg or embryo freezing should be considered for women using these immunotherapies.