

Different types of ovarian cancer have different causes

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THE more children a woman has or whether a woman has had her fallopian tubes cut lowers the risk of different types of ovarian cancer to different levels, according to new research presented at the 2015 National Cancer Research Institute (NCRI) Cancer Conference today (Tuesday).

Data was collected from more than 8000 [women](#) with [ovarian cancer](#) as part of the UK Million Women Study.

Researchers then examined the risk of the four most common types of ovarian cancer - serous, mucinous, endometrioid and clear cell tumours - in women with different childbearing patterns.

For ovarian cancer overall, women with one child had about a 20 per cent reduction in risk compared to women without children, and about a 40 cent reduction of endometrioid and clear cell tumours.

Each additional birth then offered an estimated eight per cent reduction in the overall risk of ovarian cancer.

Researchers also compared risk between those women who had surgery to cut or clip their [fallopian tubes](#) with those who had not. This procedure - known as tubal ligation or sterilisation - is a surgical procedure for permanent contraception.

Women who had had this surgery had a 20 per cent lower overall risk of ovarian cancer. The risk was about 20 per cent lower for high-grade serous tumours - the most common type of ovarian cancer - and about halved for endometrioid and clear cell tumours.

Dr Kezia Gaitskell, Cancer Research UK funded lead researcher and pathologist based at the Cancer Epidemiology Unit, University of Oxford, said: "In the last few years, our understanding of ovarian cancer has been revolutionised by

research showing that many cases may not in fact come from the ovaries. For example, many high-grade serous tumours - the most common type - seem to start in the fallopian tubes, while some endometrioid and clear cell tumours may develop from endometriosis.

"We think that the significant reduction in risk among women with one child compared to women without children is likely to be related to infertility, as there are some conditions - such as endometriosis - that may make it harder for a woman to become pregnant, and which may also increase her risk of these specific types of ovarian cancer.

"For the reduced risk seen among women with tubal ligation - it could be that tubal ligation acts as a barrier to help prevent the abnormal cells that might cause these tumours passing through the fallopian tubes to the ovaries. Our results are really interesting, because they show that the associations with known risk factors for ovarian cancer, such as childbirth and fertility, vary between the different tumour types."

Professor Charlie Swanton, Chair of the 2015 NCRI Cancer Conference, said: "We've known for some time that the number of children a woman has, and her use of contraception, can influence her risk of ovarian cancer, so this research provides important further detail about different types of the disease.

"Ovarian cancer - like many other cancers - is not one disease, but different diseases that are grouped together because of where they start. It's important to know what affects the risk of different types of ovarian cancer and what factors impact this. We now need to understand the mechanisms behind these findings to develop some way to extend this lower risk to all women, regardless of how many children they have."

More information: abstracts.ncri.org.uk/abstract

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Provided by Cancer Research UK

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