

Ovarian cancer could be linked to father's X chromosome

Data from a large, long-term study of US families indicates women may inherit ovarian cancer through the X chromosome passed down from their dad, independently of genes on other chromosomes already associated with the aggressive condition.

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Dr [Kevin] Eng and his team have identified a potential gene on the X chromosome associated with the early onset of ovarian cancer, they reported [February 16] in the journal [PLOS Genetics](#). But much bigger genetic studies need to be done to identify whether any specific mutation exists, he stressed.

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Women have two X chromosomes. One is inherited from their mum, the other is inherited from their dad. BRCA mutations are on non-X chromosomes, meaning a daughter has a 50/50 chance of inheriting the mutation. But all daughters in a family would inherit an X-linked mutation if it existed.

The team trawled through data that had been collected over 30 years on the Familial Ovarian Cancer Registry and identified more than 890 grandmothers with ovarian cancer who had granddaughters with the condition.

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Around 28.4 per cent of the paternal granddaughters had ovarian cancer, compared to 13.9 per cent of those with a maternal grandmother.

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"If we are right and the pattern does seem to be X-linked, eventually we'll be able to nail down a variant ... and begin to think about how to change the screening patterns [to identify people at risk]," [said Dr. Eng]

Read full, original post: [Ovarian cancer may be passed down through dad's X chromosome](#)