

New treatment in sight for ovarian cancer

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In the future, women with metastatic ovarian cancer could be treated with a radioactive substance that can seek and destroy tumour cells. An initial study in patients conducted jointly by the Sahlgrenska Academy at the University of Gothenburg and Sahlgrenska University Hospital has found that the treatment has no unwanted side-effects.

"Our research team has long hoped to be able to target radiotherapy in this way," says [oncologist](#) Håkan Andersson from Sahlgrenska University Hospital, who is leading the research alongside professor Ragnar Hultborn from the Sahlgrenska Academy and radiation physicist Lars Jacobsson.

"There is a good chance of this treatment working, as the study indicates that a sufficient amount of the active substance reaches the tumour cells in the abdominal cavity without any measurable side-effects."

The aim of this initial patient study, just published in the *Journal of Nuclear Medicine*, was to study the substance's distribution in the body and any side-effects in nine women with ovarian cancer.

The new treatment has been developed jointly over a number of years by researchers at the Sahlgrenska Academy and Sahlgrenska University Hospital. The treatment entails injecting the patient with a radioactive isotope bound to carrier molecules. This complex has the ability to bind to structures on the surface of [tumour cells](#) where the isotope emits alpha particles with such a short range that only the very nearest tumour cells' DNA is destroyed. The injection is administered straight into the

abdominal cavity.

"We have previously seen that mice with ovarian cancer given this treatment are generally cured without serious side-effects, so we hope that this will become an established and effective treatment for women with metastatic ovarian cancer," says Ragnar Hultborn, professor of oncology at the University of Gothenburg's Sahlgrenska Academy. "But it will still be several years of development."

The research is being funded partly by the Swedish Research Council and the Swedish Cancer Society.

"In our next study, 80 [women](#) with [ovarian cancer](#) will receive this treatment as a supplement to their ordinary treatment so that we can scientifically test whether the effect is as good in real patients as the animal studies indicate," Håkan Andersson says.

Source: University of Gothenburg ([news](#) : [web](#))

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