

Robotic surgery is feasible for some women with ovarian cancer



Robotic surgery reduces the length of hospital stay, blood loss, and the need for transfusions.

INTRODUCTION

The ovaries are a pair of organs that store a woman's eggs. The ovaries are connected to the womb and make up part of the female reproductive system. Cancer affecting the ovaries is one of the most common reproductive system cancers. Ovarian cancer mainly affects women over the age of 50 – after they have gone through menopause.

In traditional open surgery, large incisions (or cuts) are made with a scalpel that allow the surgeon access inside the body. In robot-assisted (robotic) surgery, much smaller incisions are needed – often just a fraction of an inch. The surgery can be done through these small openings using thin robotic arms with cameras and instruments attached. The surgeon controls these arms from a computer. Less invasive surgical procedures like these can reduce complications and pain compared to traditional open surgery. Because of this, robotic surgery is already common in some types of cancer. With the introduction of chemotherapy before surgery (neoadjuvant chemotherapy) for ovarian cancer, many women have minimal disease at the time of their surgery, and the need for open surgery has been questioned.

WHAT DID THE AUTHORS HOPE TO LEARN?

The authors wanted to look at the safety of robotic surgery in women with advanced ovarian cancer who had already had chemotherapy to shrink the cancerous tumors.

WHO WAS STUDIED?

The study looked at 91 women, from one cancer treatment center, who had surgery following chemotherapy for ovarian cancer. All women had Stage III or IV cancer and had been operated on between 2008 and 2014.

HOW WAS THE STUDY CONDUCTED?

This was a retrospective observational study, which means that the authors used existing patient records to look back and find women for each group. They then compared disease outcomes from before and after the introduction of robotic surgery.

WHAT WERE THE MAIN FINDINGS OF THE STUDY?

The main finding was that disease outcomes were similar before and after the introduction of robotic surgery, and there was no difference in survival. However, women who had robotic surgery had shorter hospital stays and lost less blood than those who had traditional open surgery.

ARE THESE FINDINGS NEW?

No, these findings are not new. There have been previous studies that compared robotic and open surgery in ovarian cancer. However, the earlier studies tested robotic surgery only in women with the best potential outcome. These newer findings are important because they show how well robotic surgery works for women who have a greater variety of potential outcomes.

WHAT ARE THE LIMITATIONS OF THE STUDY?

The main limitation is that this was a preliminary retrospective study on a small number of patients from a single cancer treatment center. It also included only women undergoing neoadjuvant chemotherapy (chemotherapy before surgery). Because of this limitation, it is not possible to generalize the findings to other groups of women with ovarian cancer.

WHAT DO THE AUTHORS PLAN ON DOING WITH THIS INFORMATION?

The authors are involved in a large randomized clinical trial called LANCE that will look further into the use of robotic surgery in ovarian cancer patients.

WHAT IMPACT WILL THIS STUDY HAVE ON PATIENT CARE?

If you have ovarian cancer, you may be offered robotic surgery after your chemotherapy to help remove any residual disease (remaining cancer cells after treatment). In the future, there might be new robotic treatment options that use computers and artificial intelligence.

If you have any concerns about your disease or treatment, you should talk to your doctor.

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