PET/CT scanning joins two scans into one. PET is a nuclear medicine scan that produces a 3-D image of functional processes in the body. A PET scan uses a small amount of a radioactive drug to show differences between healthy tissue and diseased tissue. A CT (computed tomography) scan uses special x-ray equipment to take multiple images from a certain angle around the body. A computer then processes the information from the images and produces an image that shows a cross section of the area being examined.

A PET/CT scan will take about 45 to 60 minutes starting with the CT scan and followed by the PET scan.

Information about Combidex MRI

An MRI uses a powerful magnet and radio waves linked to a computer to create remarkably clear and detailed cross sectional images of the body. The day before the MRI scan, participants will receive an injection of the Combidex agent to help make any abnormal lymph nodes easier to see on the MRI scan.

An MRI takes about 30 to 40 minutes during which participants have to lie very still.

Research Sponsorship

This research study is run by the American College of Radiology Imaging Network (ACRIN) and the Gynecologic Oncology Group (GOG), and it is funded by the National Cancer Institute (NCI). ACRIN and GOG are national cancer research organizations. The goal of ACRIN is to increase the length and quality of life for cancer patients by conducting well-controlled studies to evaluate medical imaging procedures. The goal of GOG is to promote excellence in the quality and integrity of clinical and basic scientific research in the field of gynecologic cancer.
You are being asked to participate in this study because you have cervical cancer that has not been treated and has been found to be too advanced to be treated by surgery alone.

This study will evaluate two types of tests, often called “scans.” The scans are a PET/CT scan and an MRI scan using a new “agent” being studied called Combidex. (An agent is a substance that is injected at the time of an MRI scan to help doctors better see the area of interest). Researchers hope to learn whether or not the scans can determine if your cancer has spread to your lymph nodes.

These questions are important to answer because treatment for patients with cervical cancer depends on where the cancer is found. Cancer that has spread to lymph nodes is treated differently than cancer that has not spread. Finding out whether cancer has spread to the lymph nodes will help patients receive the appropriate treatment.

Who can join this study?
You may be eligible for this study if:
• You have previously untreated cervical cancer that your physician feels will be best treated with chemotherapy and radiation
• You are eligible for surgery to remove or biopsy your lymph nodes
• Your cancer has not spread to organs outside abdomen and pelvic lymph nodes

Who cannot join this study?
You cannot join this study if:
• You are pregnant or nursing
• You have received prior radiation therapy to your pelvis
• You have a severe infection or another uncontrolled illness
• You have had other cancer (except non-melanoma skin cancer) in the last 5 years
• You are unable to have an MRI (e.g., due to implanted metal or severe claustrophobia)

What happens if I choose to join this study?
Your doctor or nurse will talk with you about joining the study. You will be given an “informed consent form” that will tell you about all of the study procedures and the possible risks and benefits. If you decide to join the study, you will be given a PET/CT scan on one day, followed by an MRI scan, generally the next day. If the PET/CT scan shows cancer outside your lymph nodes, you will have a biopsy (the removal of tissue for examination). If the PET/CT scan does not show you have cancer outside the lymph nodes, you will have surgery to biopsy/remove lymph nodes in your pelvis and lower part of your abdomen. After the scans, you will undergo treatment as directed by your doctor.

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This trial may lead to a more non-invasive, accurate diagnosis and therefore treatment that is most appropriate to the patient’s needs. As a cervical cancer survivor, I know that would provide significant benefit to patients.

Nancy Roach
ACRIN Patient Advocate