



A Report From the American Society of Clinical Oncology 2007 Annual Meeting

Gynecologic Cancers

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Each year, more than 11,000 women in the United States are diagnosed with cervical cancer. Although once one of the most common causes of cancer death for American women, since 1955 the death rate for this cancer has plummeted by 74 percent. That is thanks to the increased use of the Pap smear, a screening test that can find changes in the cervix before cancer develops. Today, cervical cancer occurs most often in Hispanic women. Infection with the **human papillomavirus (HPV)** is the most important risk factor for cervical cancer. In 2006 the first **vaccine** to prevent infection by this virus became available, and, as we report here, another vaccine is in the pipeline.

Cancer of the endometrium is now the most common cancer of the female reproductive organs, diagnosed in more than 39,000 women each year in the United States. About 70 percent of all cases are found in women between the ages of 45 and 74, with the highest number diagnosed in the 55 to 64 age group. Female hormones play a part in the development of most endometrial cancers. Among the other risk factors are obesity, use of tamoxifen, use of hormones after menopause, and family history.

Each year about 22,500 cases of ovarian cancer are diagnosed in the United States. It accounts for about 3 percent of all cancers in women. Since 1985, the incidence of ovarian cancer has decreased by almost 1 percent a year. Ovarian cancer develops mainly in older women; about two-thirds

What's New, What's Important

- For women between the ages of 15 and 55, the Cervarix vaccine may protect against new infections with the type of virus that can cause cervical cancer.
- Early results from clinical trials show that pazopanib, a new drug that targets specific areas of cancer cells while sparing healthy tissues, may be useful against advanced ovarian cancer.

of the patients are 55 or older. It is slightly more common in white women than African-American women. Risk factors include obesity, possibly the prolonged use of fertility drugs, and a family history of breast, colorectal, or ovarian cancer. However, most women with ovarian cancer do not have any known risk factors.

Cervical Cancer

ANOTHER PREVENTION VACCINE

In June 2006, the U.S. Food and Drug Administration approved Gardasil, the first vaccine to prevent cervical cancer in females aged 9 to 26. Now a new study shows that another vaccine, called Cervarix, may also help to prevent viruses that can cause cervical cancer.

Both vaccines target strains of HPV, two of which are linked to cervical cancer and two of which cause genital warts. Sometimes, these naturally occurring infections go away without treatment, but women exposed to HPV may not be protected against future infections with the same virus type. Some infections persist, especially in older women, and develop into precancerous tumors, which can advance to cancer within a few years.

The Cervarix vaccine was studied in more than 600 healthy women, ages 15 to 55, from Germany and Poland. Early results on 90 women show very positive results with this vaccine. Eighteen months after the first dose of a three-dose **vaccination** schedule, blood tests indicated that all of the women in all age groups seemed to be protected against new infections. Researchers will continue to study more than 500 of these women for as long as four years.

This vaccine appears to be a safe and effective way to protect women from new infections with the type of virus that can cause cervical cancer. Long-term results from this study should shed more light on the future role of Cervarix.

Advanced Gynecologic Cancer

PAZOPANIB FOR OVARIAN CANCER

Most women with ovarian cancer have advanced cancer at the time of diagnosis. Typically, the treatment they receive is surgery followed by combination chemotherapy. Even though most of these women respond initially to such treatment, in many cases the cancer returns.

In the search for other treatment options, researchers are studying a new drug called pazopanib for many different tumor types, including ovarian cancers. Pazopanib belongs to a newer class of drugs that targets specific areas of cancer cells primarily, sparing healthy tissues and causing less severe side effects. Known as **targeted treatments**, these drugs zero in on cell mechanisms that supply blood to tumors and promote their growth. Pazopanib helps stop cancer by blocking **receptors** for vascular endothelial growth factor (VEGF) and platelet-derived growth factor (PDGF). These substances play a critical role in the growth of new blood vessels in the body and in the spread of tumors.

Pazopanib was studied in a small group of women with various gynecologic cancers, including ovarian cancer, that had not responded to previous chemotherapy. Early results with pazopanib have been promising. Of 22 patients, nine responded with a decrease in **CA-125** levels. Women with ovarian cancer often have high levels of this protein, and a decrease in CA-125 levels is a sign that women are responding to the drug.

Further studies with pazopanib are under way.



What's New, What's Important

- Nab-paclitaxel (Abraxane), a drug that has already been approved for treating advanced breast cancer, appears to be an effective option for women with recurrent gynecologic cancers.
- The combination of AP23573 and paclitaxel has shown encouraging early results in people with different types of advanced tumors, including ovarian cancer.
- The targeted treatment AP23573 may be an option for women who have advanced endometrial cancer.

NAB-PACLITAXEL (ABRAXANE) FOR ADVANCED CANCER OF THE OVARIES, PERITONEUM, AND FALLOPIAN TUBES

Women with recurrent ovarian cancer that is sensitive to platinum drugs respond quite well to repeated treatment with cisplatin. Researchers are looking for alternatives for those women with gynecological cancers that are not sensitive to platinum drugs. They may have found one in nab-paclitaxel (Abraxane). In 2005, the U.S. Food and Drug Administration approved this drug for the treatment of advanced breast cancer.

Researchers based in Texas and Oregon gave nab-paclitaxel to about 45 women with recurrent cancers of the ovaries, peritoneum (the lining of the abdomen), and the fallopian tubes (tubes on either side of the uterus). These cancers were considered to be sensitive (or responsive) to a drug like nab-paclitaxel.

In 50 percent of the women treated with nab-paclitaxel, the tumor shrank significantly. This **response rate** was even better (almost 65 percent) in the subgroup of women whose cancer was marked by increased CA-125 levels. Studies are ongoing to learn whether nab-paclitaxel can prolong the lives of these women as well.

On the Horizon

AP23573 AND PACLITAXEL (TAXOL) FOR ADVANCED TUMORS

Many drugs can shrink tumors and prolong the lives of people with cancer, but they can also cause serious side effects that make it difficult for patients to complete their treatment. Striking a balance between the benefits and risks of cancer treatment is the key to finding out whether any new treatment approach is worthwhile.

This search has led researchers in Italy from the Southern Europe New Drug Organization to study a combination of a newer drug and an older one in people with different types of advanced tumors. The newer drug is called AP23573. It acts to block mTOR—a substance that acts like a master switch, turning on a number of different reactions in cells that promote the growth of cancer. The older drug is paclitaxel (Taxol), which has been used for many years to treat breast, head and neck, lung, and ovarian cancers.

The combination of AP23573 and paclitaxel was tested in a group of about 30 people with growing tumors, including ovarian and other cancers. All of these patients had received prior treatment with at least one type of chemotherapy. This early clinical trial, which tried to define the best dosing combinations of these two drugs, showed that 12.5 milligrams (mg) or 37.5 mg of AP23573 and 60 mg or 80 mg of paclitaxel were the ideal doses. People who took part in the clinical trial experienced mild mouth sores and moderate neutropenia—a low white blood cell count that can increase the risk of infection.

Researchers were encouraged by the results with this combination and plan to study it further in larger clinical trials.

AP23573 FOR ADVANCED ENDOMETRIAL CANCER

AP23573 also appears to be an option for women who have

advanced cancer of the endometrium (the lining of the uterus). Researchers gave this new drug to 45 endometrial cancer patients in the United States and Europe. All but two of the patients had already received chemotherapy before the study. In all of the women, the cancer had grown during the three months before they entered the clinical trial. AP23573 was given **intravenously** for five days every two weeks.

The researchers reported that almost 10 percent of the women had a decrease of at least 50 percent in the size of their tumor. In nine women, the tumor neither shrank nor grew for more than 16 weeks. Altogether, almost 30 percent of the women responded to this new drug. The study also suggests that AP23573 might be effective in patients who have not received chemotherapy.

Clinical trials of this drug continue.



Please note: Although the treatments discussed in this chapter are showing promise, most are still in clinical trials—some in earlier phases of research—and may not be available yet to the general public. Your doctor can help guide you as to which new medications could be right for you and whether you are eligible to take part in the clinical trials of these new treatments.