Intraperitoneal Aids IV Chemo in Ovarian Cancer

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MIAMI BEACH — Intravenous combined with intraperitoneal chemotherapy provides a significant survival benefit to women with advanced epithelial ovarian cancer, compared with intravenous delivery alone, according to three published studies discussed at an ob.gyn. conference sponsored by the University of Miami.

These trials further support a clinical announcement from the National Cancer Institute in January 2006 that recognized a "significant survival benefit" with the combination administration. This protocol is one of the new approaches researchers are assessing to improve overall survival. Currently, 5-year survival is about 44% for women of all races. There are nearly 26,000 new cases of ovarian cancer and approximately 16,000 deaths each year in the United States.

"More and more we are making them live longer and improving their quality of life," said Dr. Nicholas C. Lambrou who is on the gynecologic oncology faculty at the University of Miami. "The real new chemotherapy is this new mode of delivery."

The intraperitoneal cavity is a major route of metastatic spread for ovarian cancer. Intraperitoneal chemotherapy provides an increased concentration of drug for a prolonged period of time to target any residual peritoneal tumor. Dual delivery also may decrease bone marrow toxicity, compared with IV-only chemotherapy, Dr. Lambrou said.

Poor tumor penetration of bulk disease and less exposure of any extraperitoneal cancer to chemotherapy are potential limitations of intraperitoneal delivery. Therefore, the combination approach may work best in women with minimal residual disease following surgery.

Three large studies—two published in 2007 and one in 2006—support use of intraperitoneal chemotherapy for women with advanced epithelial ovarian cancer, Dr. Lambrou said. In one, researchers performed a meta-analysis to assess first-line intraperitoneal versus IV chemotherapy for these patients (Cancer 2007;109:692-702).

There were statistically significant overall survival benefits with intraperitoneal cisplatin-containing chemotherapy, compared with IV chemotherapy alone, according to the meta-analysis. In the three largest trials, all phase III studies, overall survival increased by between 8 and 16 months. The survival improvements suggest patients should be offered cisplatin-containing intraperitoneal chemotherapy, despite more common severe adverse events and catheter-related complications, Dr. L. Elit and associates at the Hamilton Regional Cancer Centre in Hamilton, Ont., wrote.

In another study conducted for the Gynecologic Oncology Group (GOG), Dr. L.B. Wenzel and associates at the University of California, Irvine, demonstrated that patients receiving intraperitoneal chemotherapy experienced more disruption of their health-related quality of life, greater abdominal discomfort, and more neurotoxicity during treatment than did patients who received IV therapy (J. Clin. Oncol. 2007;25:437-43). However, they added, only a higher incidence of neurotoxicity remained 1 year after treatment, a finding that should be weighed against improved survival in these patients.

The study is a follow-up to another GOG assessment of the same 415 women with optimally debulked, stage III ovarian cancer (N. Engl. J. Med. 2006;354:34-43). Dr. D. Armstrong and associates at the Johns Hopkins University Kimmel Cancer Center in Baltimore demonstrated improved survival among those treated with IV paclitaxel plus intraperitoneal cisplatin and paclitaxel, compared with conventional IV paclitaxel plus cisplatin. For example, progression-free survival was 24 months in the 205 patients treated with the combination versus 18 months in the 210 patients treated with IV chemotherapy only. In addition, overall survival with combination chemotherapy was 66 months versus 50 months survival in the IV-only group.

Hematologic toxicity was the primary adverse event associated with intraperitoneal chemotherapy in this study, Dr. Lambrou said. Some adverse events related to the abdominal catheter were also reported. "We may see fewer in the future as people get comfortable placing these," he said. He recommended a Bard-type venous access port placed on a woman's rib to minimize this complication. ■