Gynaecological Oncology News

Prof. Andreas Obermair **May 2007**

Intraperitoneal Chemotherapy

New Strategy for Ovarian Cancer Patients

Patients with advanced ovarian cancer might benefit from applying chemotherapy directly into the abdominal cavity rather than giving chemotherapy i.v.; an update was given at the Women's Cancer Conference in San Diego in March 2007.

Epithelial Ovarian Cancer (EOC) mainly spreads within the peritoneal surfaces within the abdomen. Aggressive surgical cytoreduction is advocated to minimise the cancer load and to increase the chances of chemotherapy to be effective.

Intraperitoneal chemotherapy allows a several-fold increase of pharmacological exposure of chemotherapy drugs compared to i.v. chemotherapy. The drugs commonly used are Cisplatin and Paclitaxel.

A Southwestern Oncology Group (SWOG) trial included 68 patients with optimally debulked advanced EOC, all of whom had i.p. treatment added to their i.v. chemotherapy regimen. Survival rates were beyond expectations: Two year disease-free survival was 66% and median overall survival was 51 months.

Subsequently, GOG172, a randomised trial comparing i.v and intraperitoneal (i.p.) chemotherapy included 429 patients with optimally debulked stage 3 EOC. Patients were randomly assigned to i.p. or i.v. chemotherapy, both given six times in three weeks intervals. There was a significant survival benefit of 16% in favour of the i.p. treatment arm.

However, i.p. chemotherapy was also associated with significantly increased toxicity. Only 42% of patients were able to complete all six cycles of treatment due to catheter problems (infection, blockage, leakage). In addition, haematologic toxicities, gastrointestinal events, abdominal pain, metabolic abnormalities and neuropathy occured significantly more often in the i.p. treatment arm.

As a result, the U.S. National Cancer Institute issued an alert that i.p. chemotherapy should be considered in EOC patients with minimal residual tumour after surgery.

Recently, a Cochrane review completed a meta-analysis of eight randomised clinical trials comparing standard i.v. chemotherapy with the new i.p. chemotherapy regimen. This analysis again supports i.p. chemotherapy.

Limitations **-** Results from GOG172 and a number of randomised clinical trials suggest that i.p. chemotherapy is beneficial in patients who had successful surgical cytoreduction. The areas of concerns are:

1. Patients who required a bowel or bladder/ureter resection should not have i.p. chemotherapy until the surgical anastomosis is effectively healed. Anastomotic leaks would otherwise be very common.

2. Patients who form adhesions postoperatively might experience troublesome side-effects from i.p. chemotherapy and these patients might not complete i.p. treatment. However, they can easily switch over to the current standard i.v. chemotherapy.

My practice **–** (Provided the patient is medically fit to tolerate major abdominal surgery) I do the utmost possible to achieve optimal cytoreduction (no or minimal residual tumour) after initial surgery.

I recommend the first cycle of chemotherapy given i.v. (standard), then perform a diagnostic laparoscopy to determine the extent of adhesion formation. If adhesion formation is minimal, I insert an i.p. port subcutaneously through which i.p. chemotherapy can be given the following day.

CA125 in uterine cancer

Tumour marker predicts extrauterine spread

The tumour marker CA125 is a glycoprotein derived from mesothelial cells of the peritoneum, the pleura and the pericard.

A prospective study found that a CA125 level of ≥20 U/mL correctly indicated spread to lymph nodes, the ovaries or fallopian tubes in 80% of patients.

"A high preoperative CA125 level in a patient with uterine cancer makes me suspicious of extrauterine spread"

An elevated serum CA125 certainly does not replace standard surgical staging at present as the test is not reliable enough.

Standard preoperative work-up for patients with uterine cancer include CT scan (abdomen, pelvis), Chest X-Ray, serum CA125 plus serum biochemistry and a blood count.

Please contact me if I can answer questions about this or any other topics raised or if you require advice about a patient.

A. Obermair, www.obermair.info; ☎ 07 3847 3033 (Mon – Fri 8.30 to 4.30)