INTRAPERITONEAL CISPLATIN AND WHOLE ABDOMEN HYPERThERMIA FOR RELAPSED OVARIAN CARCINOMA

E. Jones1, A. A. Secord2, L. R. Prosnitz1, Th. V. Samulski1, J. R. Oleson, A. Berchuck 2,
D. Clarke-Pearson2, J. Soper2, M. W. Dewhirst1, Z. Vujaskovic1
1Department of Radiation Oncology
2Department of Obstetrics and Gynecology, Division of Gynecologic Oncology, Duke
University Medical Center, Durham, NC 27710, USA

Objectives
The study was designed to determine the maximum tolerated dose (MTD) of IP cisplatin
[CDDP] combined with intravenous thiosulfate and concurrent whole abdomen hyperthermia
for advanced, recurrent, or progressive ovarian carcinoma.

Materials and Methods
Between September 1991 and November of 1998 forty one patients with advanced epithelial
ovarian cancer received escalating doses of IP (IP) cisplatin (6 cycles given every 3-4 weeks)
and whole abdomen hyperthermia with intravenous thiosulfate as second line treatment. Whole
abdomen hyperthermia was administrated using a BSD-2000 annular phased array system.

Results
Forty-one patients were enrolled in the phase I/II portions of the study. Forty-four percent
(18/41) had undergone suboptimal cytoreductive surgery and 15% (6/41) had been optimally
debulkated of their disease. Ninety percent (37/41) had platinum-resistant disease and 10%
(4/41) had platinum-sensitive disease. No DLTs occurred in the phase I testing and the recom-
manded dose for this combination schedule was 180 mg/m2 of IP cisplatin with thiosulfate
and whole abdomen hyperthermia. The overall response rate was 44% (10 CR, 8 PR) and the
median survival for all patients from protocol entry was 30 months (range 2 to 107 months).
Median duration and survival of those achieving a pathologic CR was 14 months (range 2 –
27 months), and 35 months (range 14 – 71 months, 95% CI 16 – 54 months), respectively.

Conclusion
Salvage platinum based IP cisplatin with hyperthermia did achieve pathologic CR in selected
patients and was well tolerated. These promising results suggest a role for the use of adjuvant
whole abdomen hyperthermia as a means of augmenting chemosensitization.