

CHEMOTHERAPY AFTER COMPLETE REMOVAL OF NON-OAT CELL LUNG CARCINOMA

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It has often been said that even small improvements in lung cancer survival percentages will translate into thousands of lives saved.

A new evaluation has reported a benefit with chemotherapy after complete surgical removal of non-oat (or non-small) cell lung carcinomas. This research by Wada et al from Japan was recently published in [The Journal of Clinical Oncology](#).

One might ask why is additional therapy important if cancer is totally removed? The answer lies in the survival rates following complete resection. Depending on the stage and type of cancer, a great proportion - even a majority of patients - will have recurrence of their cancer. It is because many patients have recurrence that additional therapies are offered to improve results. For lymph node positive patients, often radiation therapy is administered in an attempt to prevent local recurrence.

Now this Japanese study reports on the use of combination chemotherapy after surgery. Researchers used oral treatment that permitted long term continuous therapy. This entailed a derivative of the drug 5 Fluorouracil (5FU) called Tegafur and Uracil. 5FU has been used for decades as an anti-cancer agent.

The authors report that the combined use of Tegafur and Uracil produces high levels of 5FU in tumor tissues. Furthermore, the authors believe that short-term use of 5FU is inadequate anti-cancer therapy and long-term usage warrants evaluation. Therefore, the authors performed a study comparing three groups of patients - one received Cis-platin, Vindesine and one year of Tegafur plus Uracil; one group received Tegafur/Uracil only and a third group that had no further treatment after surgery.

The authors stated they used Uracil/Tegafur because it had only mild reactions especially against the immune system and was suitable for long-term use.

Those evaluated were 323 patients including 115 in the combined chemotherapy arm and 108 in the single chemotherapy arm and 100 in the control arm. Because 13 patients were excluded from the study, 310 were evaluated.

Five year survival rates were calculated and were found to be 60.6% for the combined chemotherapy group; 64.1% for the Tegafur/Uracil group but 49% for the control group. Statistical analysis was performed and found significance to this latter difference.

Hematologic toxicity occurred in 29% of the patients with combined chemotherapy and 11% in the Uracil/Tegafur group. About 10% in each group had abnormal liver functions which were felt to be not serious.

Interestingly, the recurrence rates in the three groups were similar - combination chemotherapy 38.6%, the Uracil/Tegafur group 39.9% and the control group 42.9%.

Cause of death in these three groups was lung cancer respectively in 31.2%, 28.2% and 38.8%. Second or other cancers were fatal in a small group of patients in each group. This included 2.8% in the combination chemotherapy group, 1.9% in the Uracil/Tegafur group and 5.1% in the control group.

The authors similarly reported that "In addition to the evaluation of the usefulness of Uracil/Tegafur by itself compared with surgery alone, a concomitant Cis-platin/Vindesine group was established in the study. Although Cis-platin plus Vindesine is regarded as an aggressive chemotherapy regimen, the effectiveness of the therapy was not clearly shown and its value when used concomitantly with Uracil/Tegafur therapy was not demonstrated because comparison of survival rates showed usefulness of Uracil/Tegafur by itself."

In an accompanying editorial by Ronald Feld of the Princess Margaret Hospital, it was noted that "Adjuvant treatment should not yet be part of standard treatment for patients with completely resectable non-small cell lung cancer. Instead we should take advantage of the new age that is available for study along with our ability to allow adequate doses of drug to be delivered. Eligible patients should be entered onto appropriately designed randomized clinically trials with careful surgical staging rather than empirically treating them with available chemotherapy that "looks promising." By the turn of the century, adjuvant chemotherapy will likely be standard as it presently is for breast cancer. Had we made enough progress in this field? Most definitively, but not enough!"