**Favorable outcomes with chemoradiation and surgery for locally advanced non-small cell lung cancer: The BC Cancer Agency Vancouver experience.**

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Abstract Text:

**Background:** The role of surgery following concurrent platinum-based chemotherapy and radiation for locally advanced non-small cell lung cancer (NSCLC) remains controversial, with high surgical mortality rates reported in a large randomized clinical trial. In this retrospective study, we evaluated the safety and efficacy of concurrent chemoradiation with or without surgery over an 11 period at the BC Cancer Agency.

**Methods:** Patients were identified by the Vancouver Centre Pharmacy database. Charts were reviewed and data extracted included patient characteristics, weight loss, performance status, and method of mediastinal staging. Outcome measures were overall survival, pathological response rate, and treatment-associated morbidity and mortality.

**Results:** Between January 1999-2010, 177 patients were identified with locally advanced NSCLC (stage IIIA/B) treated with platinum and etoposide and ≥40Gy radiation therapy, with or without surgical resection. The majority of treatment plans were reached by a multidisciplinary conference consensus. 74% (n=131) of patients received chemoradiation alone (bimodality therapy) and 36% (n=46) received chemoradiation followed by surgical resection (trimodality therapy). Among the trimodality therapy group, 16 patients underwent pneumonectomy and 30 lobectomy.

**Table 1: Treatment-associated complications and survival**

<table>
<thead>
<tr>
<th>Complications</th>
<th>Bimodality</th>
<th>Trimodality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitalization</td>
<td>24%</td>
<td>11%</td>
</tr>
<tr>
<td>Death on treatment</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Survival</td>
<td></td>
<td></td>
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<tr>
<td>Median OS</td>
<td>19.6 mo</td>
<td>68 mo</td>
</tr>
<tr>
<td>5-year OS</td>
<td>17.5%</td>
<td>53.2%</td>
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</table>

**Conclusions:** In this series, bimodality therapy for patients with locally advanced NSCLC had similar treatment associated mortality and survival outcomes as reported in the literature. Trimodality therapy was associated with low treatment mortality rates and favourable survival. These two groups cannot be directly compared in this retrospective study. However, these results support a multidisciplinary approach to identify and
carefully select patients with locally advanced NSCLC to undergo additional surgical resection following concurrent chemoradiation.
April 12, 2012

NOYCLA
Novartis Oncology

Dear Sir or Madam:

RE: Wen Wen Shan, Medical Oncology Resident, BC Cancer Agency

It is a pleasure to write a letter of reference for Dr. Shan's application for support from NOYCLA. I am a Clinical Professor of Medicine since 1994 and have been on the medical oncology staff of the Vancouver Cancer Centre since 1978. In years past, I have been director of the Medical Oncology Training Program and am a former Chief Examiner for the Medical Oncology Royal College Subspeciality examination. I have known Wen Wen for about two years as a staff medical oncologist during her rotations as a medical oncology resident at BCCA Vancouver Cancer Centre.

Dr. Shan provided a good standard of care for my patients in the ambulatory care unit and hospital. She is friendly and interested. Knowledge of internal medicine is solid and she is keen to learn more. Clinical skills are good and she is able to take initiative within her knowledge. Her written notes are succinct and informative. Wen Wen gets on well with medical staff and other health care professionals in the system. Within the team structure of the BCCA that includes medical students, residents, fellows and staff, she has been responsible, motivated and punctual.

Dr. Shan worked with me on a research project examining treatment and outcome of multi-modality therapy of stage III non-small cell lung cancer. This involved the considerable expenditure of energy of putting about 200 patients into a database and reviewing all the clinical records. She was able to manipulate the database with statistical packages to create a very useful audit of results of chemoradiation and chemoradiation and surgery at this institution. The data has provided the BCCA with useful information that has helped determine our institutional policy for combined modality therapy. Moreover, she took the initiative to submit aspects of this data to the IASLC meeting in Geneva and the American Society of Clinical Oncology in Chicago. The abstracts have been chosen for a poster presentation. A manuscript will follow.

Thank you for considering her for this educational opportunity. I can recommend her without reservation.

Sincerely,

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I reviewed nearly 200 patient charts and extracted all relevant data into a database. I then analyzed the data and used SPSS to generate survival curves. I put together abstracts to submit to the European Lung Cancer Conference (ESMO) in Geneva and to ASCO in Chicago. Both conferences have accepted the abstract, with success of a poster discussion at ASCO. A manuscript is currently in preparation.

*Contribution percentage:* 90