relate to the observed toxicity and efficacy in both sequences will accompany
this trial. These data should provide clear direction for the optimal techniques
of incorporating gemcitabine in the setting of concurrent radiation.

P-172
Postoperative Radiotherapy for none small cell lung
cancer, a retrospective review
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Purpose: None small cell lung cancer (NSCLC) is the most common cancer in
malignancy in our hospital. The initial treatment for bronchial early disease is usually
surgery. Adjuvant radiotherapy may be given if evidence of high risk of local
recurrence, such as cut end invasion, larger tumor, regional LN metastasis, etc.
The results of the postoperative radiotherapy are reviewed retrospectively.

Materials and Methods: From January 1990 through December 2000, a total of
120 patients with NSCLC had received postoperative radiotherapy. External
beam with 6 or 10 MV photon from linear accelerator to cover all mediastinal
area and tumor bed area by conventional technique is used. The planning dose
is around 50-60 Gy with booster dose to high risk area. But 19 (15.8%) pa-
tients could not complete treatment over 60 Gy. Most patients without received
chemotherapy.

Results: There were 93 males, 27 females, age range 34-85, median 64
years. Squamous cell 58, adenocarcinoma 42, adenosquamous cell 10, other 9.
Follow up to end of 2002, 101 (84%) patients expired, 19 (16%) were alive.
The median survival time is 22 months, overall 2-, 5-year survival rate is 43%,
8% respectively. Patients with upper cut invasion and higher radiation dose over 60 Gy had slight better survivals.
Five patients developed radiation pneumonitis after radiotherapy.

Conclusions: Postoperative radiotherapy for NSCLC may benefit to treat
local disease but may be limited for improving survivals. Further increased ra-
diation dose by new techniques or adjuvant with chemotherapy might be con-
sidered in future.

P-173
Interleukin-6 and transforming growth factor-beta1 are
increased in bronchoalveolar lavage fluid following
thoracic radiotherapy
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Introduction: Radiation therapy, frequently used to treat lung cancer patients,
induces pulmonary injury in up to 20% of them. The most important and seri-
ous pulmonary complications associated with thoracic radiotherapy are radia-
tion pneumonitis and lung fibrosis. The molecular mechanisms responsible for
these radiation-induced lung injuries have been extensively studied in animals
but less so in human.

Aim: This study was designed to assess the effects of thoracic irradiation
on the local IL-6 and TGF-β1 level in lung cancer patients by measuring the
concentrations of these cytokines in the bronchoalveolar lavage (BAL) fluid
collected before, during and after radiotherapy.

Materials: Eleven patients with lung cancer requiring irradiation as part
of their treatment were studied. They had histologically proved lung cancer with
out metastasis and an ECOG performance status 0-2 at the time of diagnosis.
BAL were performed bilaterally before, during and 1, 3 and 6 months after ra-
diotherapy. Before each BAL session, their clinical status was assessed using
the BAL fluid recovered from the irradiated lung areas demonstrate that these
cytokines may contribute to the process leading to radiation-induced response
of the human lung tissue. The higher TGF-β1 response in patients of group II
further suggests that TGF-β1 may contribute to the pulmonary fibrosis in irradi-
ated lung patients.

P-174
A phase I study of weekly low dose gemcitabine (G) and
cisplatin (P) with involved field radiotherapy (RT) in stage
IIIB-III non-small cell lung cancer (NSCLC)
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A phase I study of weekly low dose gemcitabine (G) and cisplatin (P) with
involved field radiotherapy (RT) in stage IIB-III non-small cell lung cancer
(NSCLC) C Prins, JAT Innisre, A FA Little. University of Edinburgh and Pri-
fiburg Cancer Centre, Edinburgh, UK Background Previous studies have pro-
duced conflicting evidence regarding concomitant G-P-RT in stage III NSCLC.
Three studies reported significant esophagitis. Only one described the RT
volume, which included the primary cancer, hilum and mediastinum. Two
weekly regimes reported dose limiting toxicity at total doses of G 750mgm-2 P
135mgm-2 and G 900mgm-2 P 72mgm-2, but one delivered G 2400mgm-2 P
160mgm-2. To clarify this, we have started a phase I study of weekly low
dose G-P-RT using involved field radiotherapy.Aim To determine the maximum
tolerated dose (MTD) of weekly gemcitabine and cisplatin with involved field
thoracic RT. Methods 60 Gy in 30 daily fractions was delivered to the primary
cancer and involved nodes. Dose escalation commenced at G 100 mgm-2 P 2
mgm-2, and will continue to G 125 mgm-2 P 2.5 mgm-2; G 200 mgm-2 P 3
mgm-2; G 250 mgm-2 P 2.5 mgm-2; G 300 mgm-2 P 3 mgm-2. MTD is defined
as G/C or late RTG grade 3 toxicity in lung, heart, oesophagus or spinal
cord in 2/8 patients in one cohort. Previously untreated patients with irre-
sparable stage IIB-III NSCLC, PS 0-2, normal bone marrow reserve and FEV1
> 11 are eligible. Results 4 male and 5 females, median age 60 (range 55-78) years,
have completed the first two dose levels, 1 had adenocarcinoma, 3 squamous
and 3 NSCLC. 2 patients had stage IIIB, 5 IIa and 2 IIb disease. Median plan-
ning target volume was 600 cm3. 95% of chemotherapy doses were delivered.
Median follow-up is 52 weeks. No ULI has been seen to date. Two patients at
dose level 2 died within 3 months of RT, one from progressive NSCLC and one
from unknown causes, further follow-up and post-mortem examination being
depressed. The response rate is 59% (66%), 6 patients are alive and progression-
free at median 57.9 weeks. Conclusion No evidence of significant toxicity has
been seen at levels of G-P-RT (G 900 mgm-2 P 90 mgm-2 60 Gy) previously
reported to be dose limiting. This may reflect smaller RT volumes in this study.
Patient accrual continues at dose level 3.

P-175
Clinical Outcome of Patients with Stage I Non-small Cell
Lung Cancer Treated with Radiation Therapy Alone
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Purpose: The aim of this study is to investigate the efficacy of radiation therapy for
Stage I non-small cell lung cancer (NSCLC).

Materials and Methods: Sixty-six consecutive patients (58 males and 8 fe-
males) with stage I(A/B) (28/38 NSCLC treated with definitive radiotherapy dur-
ing the period from 1983 to 2002 were retrospectively analyzed. The median
age was 77 years (range, 58-91 years).

Results: Median survival time (MST) was 26 months and the 6 year sur-
vival rate was 44%. There was no statistical significant difference in the survival
curves between stage I A and IB (57% and 36%, respectively). Recurrences
occurred in 10 patients (23%) including local recurrence in 11 patients and
distant metastases in 8 patients. The 5-year local control rate of all patients
was 73%. Since 2001, patients with lung cancer have received the examina-
tion of FDG-PET at the beginning of radiation therapy. All patients will in Stage I diagnosed by FDG-PET are free from disease in short observation.

Conclusion: The local control of stage I NSCLC treated with conventional
radiotherapy was relatively good. FDG-PET is recommended for diagnostic
modality of stage I NSCLC.