84-16-1623-29

CXR: PA & Lat
Ct cuts used for treatment planning
Verification or port films (or polaroids) for the original field.*
Polaroids of patient in treatment position with fields marked.
Radiotherapy Daily Dose Calculation Check Form (RT-1)
Dose calculation work sheets for central axis dose calculations.

NAV1.954415.003

Double exposure port films are suggested to enhance perception of adjacent anatomy. Polaroid pictures of portal films are acceptable instead of standard copies. However, they must be in proper focus and the image no smaller than a 5:1 minification of a standard 14" X 17" (35.6 X 43.2 cm) film, i.e. 7 X 8.5 cm.

4.322 **Forward the following copies upon completion of treatment:**

CXR PA & Lat after 3,000 cGy if needed to document peripheral clearing.
Localization films for the boost.
Polaroids of the portal or verification films for the boost.
RT-1 for the boost.
Radiotherapy Total Dose Record (RT-2).
Patient's treatment record: daily doses & dose calculations.
Any dose calculation worksheets for the original and boost volumes.
Isodose maps for the boost volume (if other than AP-PA) showing tumor, lung, and spinal cord volumes. Place the contour for the isodose map at the central axis of the boost volume.

4.323 **Direct any questions regarding completion of RT-1 and RT-2 data forms, required dose calculations or other documentation to:**

Lawrence E. Reinstein, Ph.D.
Chief Physicist
Quality Assurance Review Center
Rhode Island Hospital
593 Eddy Street
Providence, RI 02902
401-277-5215

5.0 TREATMENT PLAN

5.1 **Chemotherapy**: Patients will be randomized to receive:

Regimen I Radiation Therapy Alone
Regimen II Chemotherapy followed by Radiation Therapy

For patients on Regimen II:

Administer Vinblastine (VBL) and Cisplatin (DDP):
VBL: 5 mg/m^2 I.V. bolus weekly x 5.

VBL is a vesicant and should be administered through a running I.V. with good blood return.

ENCLOSURE(10)

84-16-1623-29

DDP: 100 mg/m^2 over 30-60 min. I.V. d1 and 29 only.*

*Hydration for Platinum

1. Over 24 hours prior to giving DDP, hydrate with ≥3 po ± IV.
2. Over 1-2 hours prior to giving DDP give 1 liter D_5 .45NS with 8mEq $MgSO_4$.
3. Immediately prior to DDP, give 12.5 gm Mannitol IV over 10 minutes.
4. Administer DDP
5. Then over 2 hours give 500 ml of D_5 .45NS with:
   10 mEq KCL
   8 mEq MG SO_4
   12.5 gm Mannitol
6. Replace urine output with an equal volume of D_5.45NS until p.o. intake adequate.

5.2 Radiation Therapy: See Section 4.4 for Quality Assurance Documentation. Begin Radiotherapy:

Regimen I: As soon as possible after randomization, (≤4 weeks following the establishment of the diagnosis).

Regimen II: Week 7 (Day 50; following two cycles of cisplatin, vinblastine) if WBC >3,500/ul and platelets >100,000/ul.

If counts are too low to start RT on day 50, repeat counts weekly and begin RT when WBC >3,500/ul and platelets >100,000/ul.

5.21 Equipment

Modality - Use External beam photon irradiation.

Energy - Use Radiation of megavoltage quality, i.e. Cobalt-60 or accelerator beams with nominal energy of between 4-10 MeV.

Geometry - Use isocentric teletherapy with a source to axis distance (SAD) ≥80 cm.

Dose Rate - The dose rate must be ≥50 cGy/min. at D Max. (1cGy = 1 rad)

5.22 Treatment volume consists of two parts which are radiated sequentially: the original and the boost volumes.

Original Volume: Based upon conventional CXR and CT taken before any cytotoxic therapy is delivered, generally this volume will include the volume of the primary lesion and the ipsilateral pulmonary hilum, upper mediastinal lymph nodes, and supraclavicular fossa. For left lower lobe primaries, both supraclavicular fossae will be in the original treatment volume.

Boost Volume: Include the entire original (pre-therapy) radiologically defined primary tumor volume and clinically involved regional hilar and/or mediastinal nodes. Do not include pulmonary infiltrates which clear with chemotherapy and/or radiation to the original tumor volume if judged to be secondary to obstruction (infiltrate, atelectasis).

ENCLOSURE(103)