

Radiology Report—St. Elsewhere Medical Center
09/29/2007

CT Scan of Neck with and without Contrast

Indication: Bilateral neck masses

Helical 5 mm images were obtained from the skull base to the lung apices prior to and following intravenous bolus of contrast. There are no comparison studies.

Findings: A 3.2 x 2.4 cm irregular heterogeneously enhancing mass is present with the left neck. The mass is located deep and inferior to the normal appearing left parotid gland. The mass is centered approximately 3 cm superior to the left carotid bifurcation, and displaces the left internal carotid artery, external carotid artery, and internal jugular vein medially. The mass demonstrates primarily peripheral enhancement with central low attenuation. A 13 mm nodule adjacent to the inferior margin of the mass is consistent with an enlarged lymph node. An additional 11 mm prominent posterior cervical chain lymph node is present approximately 2 cm inferior to the mass. Mild thickening of the left posterior pharyngeal soft tissues is present. There is also mild thickening of the left tongue base and left tonsillar region. The right parapharyngeal and posterior pharyngeal soft tissues are normal in thickness. No airway stenosis is present. The uvula is normal in size. No additional submental or cervical chain lymphadenopathy is present. The right parotid gland and bilateral submandibular glands are normal. The vocal cords appear normal in thickness. The thyroid gland is normal. No supraclavicular lymphadenopathy is identified. An air fluid level opacifies approximately one-third of the right maxillary sinus.

Impression:

1. Heterogeneous 3.2 x 2.3 cm left neck mass, located deep to the normal appearing left parotid gland and approximately 3 cm superior and lateral to the left carotid bifurcation. Associated prominent adjacent lymph nodes and left parapharyngeal and posterior pharyngeal soft tissue thickening is noted with involvement of the left tongue base and left tonsillar region. Differential diagnosis includes conglomerated lymphadenopathy with surrounding inflammation versus neoplasm such as squamous cell carcinoma. Biopsy is recommended.
2. No soft tissue mass or lymphadenopathy is present with the right side of the neck. Normal soft tissue structures underlie the right sided BB marker.
3. Right maxillary sinusitis

Pathology Report—Memorial General Hospital
10/14/2007

Specimen:

1. Biopsies from base of tongue
2. Left neck mass
3. Soft tissue of neck, tumor versus neural ganglioma
4. Hypopharyngeal lateral wall

Gross Description:

Specimen received in four containers.

1. Container #1 labeled “biopsies from base of tongue” contains four thin light gray to tan tissue fragments up to 3 mm in greatest dimension. They are submitted entirely in cassette 1A.
2. Container #2 labeled “left neck mass” contains a 128 gram 12 x 11.2 by up to 4.4 cm radical neck dissection including a 5.3 cm greatest dimension submaxillary gland, 7 cm long, 0.6 cm in diameter segment of jugular vein and approximate 5.5 cm segment of grossly concerning appearing sternocleidomastoid muscle. Sectioning through the salivary gland shows a normal appearing grossly lobulated architecture and adjacent lymph node. No malignant features are identified within the salivary gland. The majority of what appears to be the sternocleidomastoid muscle is infiltrated with gray white necrotic tumor measuring up to 5.1 cm in greatest dimension. This area of tumor appears to extend to the superior deep aspect of the specimen (marked in green) as well as the superior (marked in black). The gross features of this mass suggest carcinoma metastatic to a lymph node with extensive extra capsular extension. The jugular vein is adherent to the tumor. This mass lesion irregularly infiltrates sternocleidomastoid muscle and occupies the majority of the level I region of the radical neck dissection. Section reveals four additional suspicious appearing lymph nodes in the level I region of the specimen. Section through the level II-V sections of the neck dissection show several other small lymph nodes including a cystic and highly suspicious lesion in level V. Sections are submitted as follows:

Cassettes

- 2A-2C Salivary gland
- 2D-2E Jugular vein adjacent to tumor
- 2F-2H Tumor/likely lymph node with metastatic tumor and deep margin
- 2I Superior soft tissue margin
- 2J Additional lymph nodes adjacent to large mass from level I
- 2K-2L Level II lymph nodes
- 2M-2N Level III lymph nodes
- 2O-2P Level IV lymph nodes
- 2Q-2S Level V lymph nodes

3. Container #3 labeled "soft tissue of neck, tumor versus neural ganglioma" contains a 4 mm greatest dimension tan pink tissue fragment. It is submitted entirely in cassette 3 FS. Also submitted in this container is a separate 6 mm gray tan nodule. It is submitted entirely in cassette 3A.
4. Container #4 labeled "high jugular node" contains a 2.0 and 1.5 cm in greatest dimension pink red rubbery to soft tissue fragment as well as adjacent gray tan tissue. It is submitted entirely in cassette 4A.

Immediate Consultation:

Soft tissues of neck, tumor versus neural neck, including squamous cell carcinoma and areas suspicious for perineural invasion.

Final Diagnosis:

1. Base of tongue, biopsy: Squamous epithelium with focal reactive changes. No tumor seen.
2. Tissue designed left neck mass, radical neck dissection: Level I lymph nodes with metastatic keratinizing squamous cell carcinoma. Largest single tumor dimension 5.3 cm. Prominent extra capsular and soft tissue extension of tumor. Tumor invades sternocleidomastoid muscle. Multifocal perineural invasion present. Tumor extends to superior and deep soft tissue margins of resection. No intraluminal jugular vein invasion seen. Metastatic squamous cell carcinoma in four of four lymph nodes. Level II lymph nodes (5), no metastatic tumor seen. Level III lymph nodes (8), no metastatic tumor seen. Level IV lymph nodes (7), no metastatic tumor seen. Level V lymph nodes, metastatic keratinizing squamous cell carcinoma in two of ten lymph nodes. Submaxillary gland: No tumor seen.
3. Soft tissue of left neck, designated tumor versus neural ganglion, biopsy including mostly squamous cell carcinoma. Focal areas of perineural invasion present.
4. Soft tissue designated as possible high jugular node: Neural ganglion with invasion by squamous cell carcinoma. No lymph node tissue present.

Comment:

The large mass of squamous cell carcinoma identified in the level I portion of the radical neck dissection shows areas of residual lymph node tissue. The mass most likely represent confluent growth of numerous lymph nodes involved by metastatic squamous cell carcinoma with extensive extra capsular invasion into adjacent soft tissue.

Radiation Oncology Consultation #1—Bigen-Fancy Oncology Center
10/27/2007

Stage, Primary Site, and Histopathology: The patient was initially diagnosed with a head and neck carcinoma from an unknown primary, but is most likely a stage IVA T2 N2b MX left soft palate cancer.

History of Present Illness: The patient is a 65-year-old lady who noted a left neck mass in 08/2007. The patient presented to her PCP who started her on antibiotics. The mass did not resolve. The patient was then referred and had a fine needle aspirate biopsy on 09/27/2007, which revealed a squamous cell carcinoma. The patient underwent biopsy of the base of tongue and a left radical neck dissection at Memorial General on 10/14/2007. The biopsy of the base of the tongue did not reveal any tumor. The left neck mass revealed squamous cell carcinoma. The largest single tumor dimension was 5.3 cm. There was extracapsular extension and soft tissue extension of the tumor. The tumor invaded the sternocleidomastoid muscle. There was multifocal perineural invasion present. There were 4 out of 4 lymph nodes involved with squamous cell carcinoma. There were 5 level II lymph nodes removed. None of them had cancer. There were 8 level III lymph nodes removed and none of those had cancer. There were 7 level IV lymph nodes removed and none of them had metastatic tumor. There were 2 out of 10 level V lymph nodes which had squamous cell carcinoma. The patient underwent a neck CT on 10/25/2007, which revealed findings consistent with postoperative changes in the left neck. There was persistent thickening in the left parapharyngeal and posterior pharyngeal soft tissues as well as the left base of tongue. The patient presents here to be considered for possible adjuvant treatment.

Past Medical/Surgical History: The patient is status-post hiatal hernia repair 18 years ago, cholecystectomy 18 years ago and she had repair to a slipped lumbar disc 15 years ago.

Medications: Premarin, Tylenol III (every 4 hours as needed for pain), aspirin

Allergies: No known drug allergies

Gynecologic History: Age at menarche 14. Menopause at age 36. The patient is G3P2.

Family History: The patient has 2 paternal aunts who had breast cancer. One paternal aunt had cancer involving the brain.

Social History: The patient is an office worker. She is divorced. She does not drink alcohol. She used to drink 2-3 alcoholic drinks per day in the past. She quit smoking on 12/11/2003. She used to smoke 3 packs per day for 44 years.

Review of Systems:

General: The patient denies fever, chills, drenching sweats

Skin: The patient bruises easily since she has been on aspirin. She had a rash on her body which has resolved. She had seen dermatologists in the past concerning that.

Lymph Nodes: As per history of present illness
Endocrine: The patient denies hot/cold intolerance
Hematology/Immunology: The patient denies anemia, recent bleeding
Musculoskeletal: The patient denies arthritis, painful or swollen joints
Head/Neck: The patient has had a sore throat since her surgery
Respiratory: The patient denies shortness of breath, cough or wheezing
Cardiovascular: The patient denies palpitations or irregular heartbeat
Gastrointestinal: The patient denies nausea, vomiting
Neurologic: The patient denies focal weakness

Physical Examination:

Height: 5' 3.5". Weight: 118 lbs (lost 5 lbs since surgery). Pulse 64, BP 98/68. In general, the patient appears her stated age and is alert, oriented and in no acute distress. Lymph nodes – No cervical or supraclavicular lymphadenopathy. She has a healing surgical incision on the left side of her neck. HEENT – pupils are equal, round and reactive to light and accommodation. Mouth has no visible lesions. The patient is edentulous. She wears dentures. I had her remove them for her oropharyngeal exam. She has no visible or palpable lesions in her mouth and oropharynx. On nasopharyngolaryngoscopy, there is a mass involving the left soft palate otherwise the base of tongue appears unremarkable. The patient appears to have some abrasion of her epiglottis which may possibly be due to her intubation during her operation. Her true vocal cords are mobile bilaterally without any visible lesions. Heart has a regular rate and rhythm without murmur. Lungs are clear to auscultation. Abdomen is nontender. Spleen is not palpable. Liver is at the costal margin. Extremities – There is no clubbing, cyanosis or edema. Neurologic – Cranial nerves II through XII are intact. Sensation is intact. There is 5/5 strength throughout.

Assessment: The patient has squamous cell carcinoma from an unknown primary. Based on physical examination the oropharynx is the most likely primary site. In that case it would be a Stage IVA TXN2BMX oropharyngeal carcinoma.

Plan: I recommended postoperative radiation therapy with evaluation for concurrent chemoradiotherapy. This is based on studies such as the one in France where patients with stage III and IV oropharyngeal cancer were randomized between radiation therapy alone versus chemoradiotherapy. In those patients who received chemotherapy they improved survival and disease free survival. The patient indicated that logistically it would be easier for her to be treated elsewhere. Therefore I have referred her for consideration for radiation therapy closer to her home. I also referred her for evaluation for possible concurrent chemotherapy. Since the patient will most likely have significant odynophagia during treatment I also referred her to gastroenterology to be evaluated for a gastric tube. I ordered tests to complete her staging workup, which included a PET scan, chest x-ray, complete metabolic panel, complete blood count, TSH and free T4 checked. I gave her a refill for her Tylenol III. I told the patient when she is seen on 11/08/2007, that she may possibly be considered for biopsy of the soft palate area if felt to be suspicious. The patient will be receiving her treatment. She has no further follow ups scheduled with me.

Pathology Report—My Facility
11/01/2007

Specimen:

5. Soft palate biopsy
6. Lateral pharyngeal wall biopsy, left
7. Lateral nasopharyngeal wall, left
8. Hypopharyngeal lateral wall

Gross Description:

1. Received labeled “soft palate biopsy” contains two soft gray tan tissue fragments 2 to 4 mm in greatest dimension. They are submitted entirely in cassette 1.
2. Received labeled “lateral pharyngeal wall biopsy” contains two pink red to tan gray tissue fragments up to 2 mm in greatest dimension. They are submitted entirely in cassette 2.
3. Received labeled “lateral nasopharyngeal wall” contains five pink red to gray tan tissue fragments up to 6 mm in greatest dimension. They are submitted entirely in cassette 3.
4. Received labeled “hypopharyngeal lateral wall” contains three pink red to gray tan tissue fragments up to 7 mm in greatest dimension. They are submitted entirely in cassette 4.

Final Diagnosis:

1. Soft palate, biopsy: Squamous cell carcinoma (see comment)
2. Left lateral pharyngeal wall, biopsy: No tumor seen
3. Left lateral nasopharyngeal wall, biopsies: No tumor seen. Chronic inflammation.
4. Lateral hypopharyngeal wall, biopsy: No tumor seen

Comment:

The soft palate biopsy shows some irregular acanthosis and parakeratosis with some disordered maturation and occasional mitotic figure about the basal layer. Step sections show focal but conclusive areas of invasive squamous cell carcinoma.

Consultation—My Facility Radiation Therapy Center
11/02/2007

Reason for Consultation: Patient is a 65-year-old lady who was recently diagnosed with squamous cell carcinoma involving the left neck from an unknown primary (recent biopsies currently pending).

History of Present Illness: The patient's history dates back to approximately mid August when she began to notice a swelling in the left neck region. The patient describes an enlarging mass just inferior to the left earlobe. It gradually progressed in size and extended both posterior and anterior to the left earlobe. The patient was evaluated by her primary physician and started on antibiotics. The mass progressed and she was subsequently referred to ENT surgeon. The patient underwent a needle biopsy which was positive for carcinoma (formal report currently unavailable). The patient subsequently underwent a CT scan of the neck on September 29, 2007 and this revealed a 3.2 x 2.4 irregular heterogeneous mass within the left neck deep and inferior to the normal appearing left parotid gland. It is centered approximately 3 centimeters superior to the left carotid bifurcation and a 13 millimeter nodule just inferior to the margin of the mass consistent with an enlarged lymph node was noted as well as an 11 millimeter posterior cervical lymph node 2 centimeters inferior to the mass. Mild thickening of the left tongue base and left tonsillar region was noted. No airway compromise was noted. The remaining images were essentially unremarkable except for an air fluid level in the right maxillary sinus.

The patient underwent further evaluation and was taken to surgery on October 14, 2007 at Memorial General where left radical neck dissection was performed by ENT surgeon. The pathology from this procedure revealed that the biopsy at the base of the tongue was negative for any tumor noted. The left neck mass contained metastatic keratinizing squamous cell carcinoma with the largest single dimension of 5.3 centimeters. Prominent extracapsular and soft tissue extension of the tumor was noted with involvement of the sternocleidomastoid muscle and perineural nerve involvement. The tumor extended to the superior and deep soft tissue margins of resection.

Metastatic squamous cell carcinoma was noted in four out of four nodes at this level which was noted as level I (this is not consistent with the level noted by the patient's description on the CT scan). Five lymph nodes from level II were reportedly negative. Eight lymph nodes from level III were reportedly negative. Seven lymph nodes from level IV were negative for metastatic disease and two out of ten lymph nodes in level V were positive for metastatic squamous cell carcinoma. Additional soft tissue from the left neck designated tumor versus neuroganglion. Biopsy was positive for squamous cell carcinoma. Additional soft tissue noted as a possible high jugular node was positive for neuroganglion with invasion of squamous cell carcinoma. Under the comment section, a large mass of squamous cell carcinoma identified in the level I portion of the radical neck dissection showed focal areas of residual lymph node tissue and most likely this was confluent growth of numerous lymph nodes with extracapsular extensive extension into the soft tissue. The patient subsequently recovered fairly well from her surgery.

Recently the patient was noted to have a possible soft palate mass. The patient subsequently had a biopsy of the soft palate mass on October 29, 2007 and the pathology from this is currently pending. The patient requested to be treated closer to her home and was subsequently referred to this clinic.

Currently patient continues to have pain in the left neck operative site as well as pain with swallowing. She notes some mild hoarseness type symptoms.

Past Medical History: Past medical history is significant for prior hysterectomy in 1975, cholecystectomy and hiatal hernia in 1985 and lumbar laminectomy. She has a history of gastroesophageal reflux. She is G-3, P-2. She does not have any history of prior radiation therapy.

Allergies: No known drug allergies

Medications: Premarin, vitamins, glucosamine, and Tylenol #3

Family History: Significant for the patient's aunt who was diagnosed with brain tumor and another aunt diagnosed with breast cancer.

Social History: Patient is accompanied by her two daughters. She is single. She has a positive smoking history of two to three packs per day for forty-four years, and quit two years ago. She drinks alcohol occasionally.

Review of Systems:

Constitutional: Patient notes a ten pound weight loss since her surgery.

HEENT: Per history of the present illness

Neurologic: Negative

Cardiovascular: Negative

Respiratory: Negative

Gastrointestinal: Patient reports constipation, but is otherwise negative

Genitourinary: Negative

Musculoskeletal: Negative

Skin: Negative

Psychiatric: Negative

Neck: Patient does report left neck pain which ranges from 3-8/10 in severity following her surgery.

Physical Examination:

General Appearance: On exam patient is resting comfortably in no acute distress and looks her stated age

Vital Signs: WT: 114 pounds. BP: 138/80. P: 72. R: 18.

HEENT: Pupils are equal round and react to light and accommodation

Extraocular muscles are intact. Examination of the oral cavity reveals the patient to be edentulous. Mild erythema is noted in the soft palate region. Fiberoptic exam was refused by the patient.

Neck: Examination of the left neck reveals surgical changes consistent with recent radical neck dissection. The incision appears to be healing well without significant erythema. The tissues are moderately indurated on the left neck. There is no palpable cervical or supraclavicular adenopathy noted in either the right or left neck.

Lungs: Clear to auscultation and percussion

Spine: Spine is nontender

Lymph Nodes: Axilla exam was negative bilaterally

Cardiovascular: Regular rate and rhythm without murmurs or rubs appreciated.

Abdomen: Soft and nontender abdomen with normal abdominal wounds. No evidence of hepatosplenomegaly

Extremities: Without clubbing, cyanosis, or edema

Neurologic: Exam does not reveal any focal motor or sensory deficits in any of the upper or lower extremities, although the patient does report decreased sensation of fine touch in the left neck area

Psychiatric: Patient is alert, oriented, and cooperative

Assessment and Plan: Patient is a 65-year-old lady who is diagnosed with TX N2b MX squamous cell carcinoma of the left neck with extensive adenopathy as noted above. The primary site is unknown at this time and recent biopsy of the soft palate lesion is currently pending.

Recommendations: I discussed the aforementioned diagnosis with the patient and her daughters. I have advised them to obtain a PET scan in addition to a chest x-ray for further staging and possible elucidation of the primary site. I will be following up with the recent biopsy of the soft palate results.

Patient appears to be at high risk for recurrence given the aforementioned pathologic findings. I certainly would recommend proceeding with postoperative treatment in order to reduce the risk of local regional recurrence. Recent randomized phase III trials were reported in the New England Journal of Medicine (May 6, 2004). These two trials, one from the RTOG and the second from the EORTC, both randomized patients in a similar fashion to either postoperative radiation therapy only or postoperative radiation therapy with the addition of cisplatin systemic therapy. Both trials showed a significant advantage with the addition of concurrent chemotherapy. The RTOG trial showed an improvement in local control and disease free survival with no improvement in overall survival. There was a marked increase in treatment related acute toxicity with the combined chemoradiation therapy. The EORTC trial likewise showed an improvement with combined chemoradiation therapy and this was statistically significant for overall survival as well.

I discussed with patient my tentative recommendation to proceed with combined chemoradiation therapy if the patient is felt to be a good candidate following the aforementioned staging studies and after evaluation by medical oncology. I understand this appointment is scheduled for

November 5, 2007. I have noted to patient that given the anticipated acute toxicity of her treatment, she would benefit from percutaneous endoscopic gastrostomy tube placement and this is tentatively scheduled for November 9, 2007 with gastroenterologist.

Patient states she would like to proceed with further radiographic work-up. She reiterated on several occasions her desire to delay any therapy until she is feeling better. I explained my concern that she may be at further risk of recurrence if she delays treatment too long. At this point she notes she may delay her percutaneous endoscopic gastrostomy tube placement by one to two weeks in order to recuperate further. She requested additional pain medication and was prescribed Percocet as well as Flexeril.

I will arrange for patient to followup with myself on 11/09/2007 to review the results of the PET scan, chest x-ray, and recent pathology as well as to review the recommendations from medical oncology. Tentatively the patient is willing to be scheduled to undergo simulation that day pending the aforementioned results. I will be writing further update at that time.

Thank you again for allowing me to participate in the care and evaluation of this very pleasant lady. Please contact me if there are any questions or concerns.

Sincerely,

Radiation Oncologist #2

Radiology Report—My Facility
11/04/2007

PET Head and Neck Imaging - Initial Staging

Clinical History: Squamous cell carcinoma of the neck, initial staging

PET imaging was performed with 12.38 mCi of F18 FDG. The patient's glucose level was 92. Correlation was made with chest CT performed at Open MRI Center on 10-25-07. The patient was diagnosed in October 2007 and had radical neck dissection on the left.

PET imaging showed asymmetric diffuse activity along the left side of the neck, lower aspect of the face, and extending towards the supraclavicular fossa on the left. Focally increased activity in that location is not demonstrated. The maximum degree of activity is demonstrated more or less in the left tonsillar pillar region or slightly caudal to that region and has a standardized uptake value of approximately 2.8 which is indeterminate. There is fairly symmetric activity in the region of the vocal folds and arytenoids, probably relating to muscular activity. There is mildly increased activity around the glenohumeral joints bilaterally, again probably muscle or inflammatory activity. A moderate degree of colonic activity is seen diffusely. This can be a normal finding, however, if the patient is experiencing GI symptoms including pain or diarrhea, further evaluation for colonic abnormality such as colitis or pseudomembranous colitis may be helpful.

Impression: Diffuse mildly increased activity along the left side of the neck probably related to the patient's radical neck dissection. The degree of increased activity is indeterminate and not definitive or particularly suspicious for focal malignancy.

Symmetric increased activity in the region of the vocal folds probably relating to muscular activity.

Periarticular glenohumeral activity probably relating to either muscle activity or inflammation.

Diffuse colonic activity, can be normal variant. Correlation with any clinical signs of symptoms of colitis or pseudomembranous colitis suggested.

Radiology Report—My Facility
11/05/2007

Two View Chest

Clinical History: Head and neck carcinoma

PA and lateral views of the chest are compared to a prior study from 8-14-06.

Cardiomediastinal silhouette is unremarkable. There is a somewhat linear, somewhat nodular area of increased density in the left lung base. Lung nodule not excluded. This could potentially be partially related to nipple shadow. This is more prominent than on the previous study. Further evaluation with CT scanning of the chest is recommended. No confluent alveolar infiltrate is seen, nor is there evidence for pleural fluid. Surgical clips are present in the right upper quadrant.

Conclusion: There is a linear and nodular area of increased density in the left lung base which could represent an area of scarring or atelectasis versus poorly marginated lung nodule. Further evaluation with ct scanning of the chest is recommended. Stable cardiomediastinal silhouette.

Radiology Report—My Facility
12/07/2007

CT Chest with Contrast

Clinical History: This is a 65-year-old with head and neck cancer, previous right upper neck dissection.

Technique: Contiguous axial images of the chest were obtained following administration of 116 ccs Omnipaque 300 contrast material intravenously.

Findings: No prior studies are available to compare. Visualized thyroid appears unremarkable. There is soft tissue thickening and distortion along the left neck. Correlation with CT of the neck is advised. There is no significant axillary, hilar, or mediastinal adenopathy. There are calcified subcarinal lymph nodes. There is no pleural or pericardial effusion. No focal infiltrate is seen. Mild right apical scarring is present. Subtle nodular density noted left lung base on image #24. This is not definitely calcified. Lower cervical degenerative changes are present. The gallbladder is surgically absent. Hiatal hernia noted.

Post therapeutic changes of the left neck. Some residual soft tissue thickening is present. Correlation with prior ct neck is advised to document stability and ensure that this is all post therapeutic in nature.

No evidence for hilar or mediastinal adenopathy.

Small irregular nodular density left lung base. This likely reflects scarring. Other etiology not excluded. Follow-up chest ct is advised in 4-6 months.

Radiotherapy Summary

Dear Colleagues,

I would like to provide you with patient's formal treatment details regarding her aggressive combined modality treatment for her TNM stage T1, N2b, M0 squamous cell carcinoma of the soft palate. The patient initially underwent neck dissection under the direction of ENT surgeon on October 14, 2007 which revealed multiple lymph nodes involved in the left neck including metastatic adenopathy involving the carotid bifurcation. Subsequent biopsy of the soft palate was positive for squamous cell carcinoma. The patient was subsequently seen in this clinic as she lives close to this clinic. I recommended PEG tube placement for nutritional support. The patient was evaluated as well by Medical Oncology for concurrent systemic therapy. I subsequently recommended proceeding with radiation therapy using an intensity modulated radiation therapy treatment approach. The patient was treated with concurrent systemic chemotherapy with cisplatin.

TREATMENT:

SITE: Planning treatment volumes.
ENERGY: 6 MV photons
FIELD ARRANGEMENT: 9 Gantry angles using an IMRT technique
DOSE PER FRACTION: 200 cGy to the primary site
PRESCRIPTISODOSE LINE: 93.6%
TOTAL FRACTIONS: 35
TOTAL DOSE: 70 Gy

TREATMENT DATES: November 30, 2007 to January 25, 2008

The patient was initially simulated on our dedicated CT scanner using IV contrast for careful delineation of the lymph node levels and tissue planes. Subsequently, a variety of structures were carefully contoured on multiple axial slices including the gross target volume of the soft palate as well as the CTV 63 which was the high risk postoperative area of the left neck as well as the CTV 58 which was the low risk of right neck and bilateral retropharyngeal regions. In addition, a variety of normal structures including the spinal cord, brain stem, glottic larynx, normal tissue, oral cavity, posterior fossa, right and left cochlea, mandible, right parotid, right submandibular gland, lips, mandible and optic nerves were contoured with appropriate expansions as needed. Subsequently a carefully conformal inverse planned intensity modulation radiation therapy treatment plan was developed. The dose to the primary site in the left soft palate was 70 Gy given in 35 fractions. The dose to the high risk postoperative left neck region was 63 Gy given in 35 fractions, and the dose to the lower risk right neck and bilateral retropharyngeal areas was 58 Gy given in 35 fractions. After approval of the plan, the physics staff subsequently performed a careful quality assurance using diode chamber readings as well as careful film dosimetry. This was approved, and the patient was subsequently treated.

Clinical Treatment Course: The patient developed the anticipated side effects of confluent mucositis by approximately the third week of treatment. She had continued pain and discomfort

in the left neck region postoperatively, and the patient's Duragesic was increased to 50 mcg q. 72h. The patient started using her PEG tube for nutritional support after approximately the second week. She continued on cisplatin systemic therapy given approximately every three weeks under the direction of Dr. B. The patient did require hospitalization secondary to nausea and dehydration. This necessitated a few days of treatment interruption. The patient subsequently resumed her radiation therapy without further difficulty. At the time of her end of treatment evaluation, the patient's weight had decreased to 101.5 pounds compared to a pretreatment weight of 114 pounds. This was in spite of aggressive nutritional support with the PEG tube.

I have asked patient to follow up with myself in three weeks. She continues on her narcotic analgesics for pain relief.

Thank you again for allowing me to participate in the care and treatment of this very pleasant lady. Please contact me if there are any questions or concerns.

Sincerely,

Radiation Oncologist #2

History & Physical—My Facility Emergency Department

Admission Date: 12/06/2007

Presenting Complaints: Nausea, vomiting, dehydration and neck pain

History of Present Illness: This is a 65-year-old Caucasian female who had recently been diagnosed with advanced squamous cell carcinoma of the soft palate. She had a left radical neck dissection and has now been started on concomitant chemotherapy/radiation. She received her first dose of cisplatinum a few days ago. She has had persistent problems with nausea, vomiting and poor p.o. intake. She states that her nausea is preceded by paroxysmal severe pain in the neck area. She had been started on Duragesic patches. In view of poor p.o. intake and dehydration she was admitted for further evaluation.

Past Medical History: Significant for hypercholesterolemia, gastroesophageal reflux disease, gout and onychomycosis.

Past Surgical History: Significant for back surgery, hiatal hernia with cholecystectomy, total abdominal hysterectomy and bilateral salpingo-oophorectomy.

Allergies: No known drug allergies

Medications: Elavil, Duragesic patches, Reglan, Zofran

Family History: Noncontributory

Social History: She smoked heavily in the past but stopped about a year ago. She drinks alcohol on the weekends. She is divorced.

Review of Systems: As in history of present illness

Physical Examination:

General Appearance: The patient is alert, oriented, in moderate distress

Vital Signs: Stable and she is afebrile

HEENT: Pupils are equal, round and react to light and accommodation.

Extraocular muscles are intact. No pallor or icterus. Throat is normal.

Neck: Evidence of modified radical neck dissection on the left side

Lungs: Clear to auscultation and percussion

Cardiac: S1 and S2, no murmurs, irregularities or additional sounds

Abdomen: Unremarkable

Extremities: The upper and lower extremities are normal

Assessment Plan: Nausea, vomiting, dehydration and locally advanced head and neck cancer. The patient will be started on IV fluids as well as antiemetics. We may need to adjust the pain regimen as well and add Neurontin.