Discharge Summary

Date of Admission: 10/30/2007

Date of Discharge: 11/07/2007

Chief Complaint: Nausea and vomiting and weakness

Principal Diagnosis: Uncontrolled hypertension

Secondary Diagnosis: Hypercalcemia

History of Present Illness: This is a 48-year-old Asian male who was experiencing lethargy, nausea and vomiting for a week and one-half. There have been some episodes of nausea and vomiting as well with no diarrhea, no abdominal pain. The patient does not have a PCP and the last time he went to a physician was years ago.

Laboratory Data/Radiology Data: Abdominal ultrasound done on 11/06/2007 that did not show any renal artery stenosis and no adrenal enlargement. Serum calcium on admission 10/30/2007 was 12.3 and upon discharge on 11/07 was 9.4. IPTH got drawn on 11/04/2007 was within normal range at 20. Renin activity, plasma metanephrine, and plasma aldosterone is pending. Chest x-ray done on 10/31/2007 showed a mediastinal mass that is approximately 7 mm in diameter and on 10/31/2007 a CT of his lower abdomen and pelvis again showed a left hilar mass measuring 2.2 x 1.2 cm in size and some associated lymph nodes.

Hospital Course: The patient was admitted and the calcium was attempted to be brought down with IV fluids and diuretics. For 2 days his calcium was refractory to this and then Zometa was used with adequate results to bring down his serum calcium. As the serum calcium dropped, his symptoms of lethargy, nausea and vomiting subsided. His blood pressure remained elevated for several days as we added the beta-blocker hydralazine and then Norvasc. Blood pressure tended to be elevated up to the 180/110s. Control of his blood pressure was finally achieved with the addition with clonidine 0.1 mg t.i.d. Primary hyperparathyroidism was ruled out with a normal PTH and hyperaldosteronism and pheochromocytoma labs are still pending, although these diagnoses are not likely. While here, the patient finally got his bronchoscopy on 11/07/2007 due to his uncontrolled hypertension and at this time biopsies were taken of the mass that are now in pathology and these results are pending.

Discharge Medications: Norvasc 10 mg 1 tablet p.o. q. daily; Lopressor 75 mg p.o. b.i.d.; hydralazine 75 mg p.o. t.i.d.; clonidine 0.1 mg 1 tablet p.o. t.i.d.

Followup: Follow up with PCP for his hypertension as well as hemorrhoids. Follow up with hematology/oncology to evaluate the results of his lung mass.

Studies Pending: Biopsy stain results and tissue studies as well as serum aldosterone, renin and metanephrine.

Discharge Disposition: To home

Radiology Report 10/31/2007

Thorax with Contrast

Clinical History: R/O lung mediastinal mass, malignancy work-up

Results: CT of the chest, abdomen and pelvis was performed with oral and intravenous contrast. Changes of severe emphysema are noted. There is a mass in the left hilar area measuring 2.2 x 1.2 cm in size that represents either an enlarged lymph node or mass and there is a 3.2 x 2.0 cm mass located in the posterior left lower lobe questionable for lung primary. No mediastinal lymphadenopathy can be seen.

Liver and spleen are unremarkable. Adrenal glands are not enlarged.

Renal outlines are normal and there maybe some small renal calculi present on the left. No retroperitoneal lymphadenopathy or fluid collections can be seen and a large amount of stool can be seen in the bowel.

Impression: Possible pulmonary neoplasm

Operative Report 11/07/2007

Preoperative Diagnosis: Left lower lobe mass and infiltrate

Postoperative Diagnosis: Left lower lobe mass and infiltrate

Procedure: Fiberoptic bronchoscopy

Anesthesia: Topical Xylocaine, IV Versed, and IV fentanyl

Procedure: After informed consent was obtained, fiberoptic bronchoscopy was performed in the usual manner.

Examination of the upper airways and vocal cords did not show any localized abnormal findings. Likewise, examination of the trachea and the main carina was normal.

Examination of the lobar and segmental airways on the right did not show any localized endobronchial abnormalities.

Examination of the lobar and segmental airways on the left revealed an endobronchial obstruction in the posterior basilar segment of the left lower lobe. This was a somewhat polypoid and ragged endobronchial mass. This was brushed, washed, and biopsied. The samples obtained will be submitted to the laboratory for histology and cytology examination.

The patient tolerated the procedure satisfactorily with stable vital signs throughout and is being returned to his hospital room for routine post-bronchoscopy monitoring. He will be seen in follow-up in the hospital to determine what additional treatment or evaluation may be needed.

Pathology Report 11/07/2007

Diagnosis and/or Comments: Small cell carcinoma.

Preoperative Diagnosis: Endobronchial polypoid mass, left lower lobe, found on CT

Specimen: Specimen: LLL Bronchial Brush and Left lower lobe endobronchial polypoid mass

Gross Description:

Received in formalin are multiple fragments of soft, pink to tan tissue measuring 0.7 x 0.7 cm. Entirely submitted in a single cassette.

Microscopic Description:

Sections show tissue with an extensive infiltrate of cohesive malignant cells with scant cytoplasm, evidence of nuclear molding and readily identifiable mitotic figures. Immunohistochemical staining shows positive labeling of the cells in question with cytokeratin AE1/AE3, CD56, synaptophysin and minimal focal positivity with chromogranin. The cells fail to label with TTF1.

Gross and Microscopic Diagnosis: Small cell neuroendocrine carcinoma

Discharge Summary

Date of Admission: 11/17/2007

Date of Discharge: 11/29/2007

Chief Complaint: Rectal bleeding

Principal Diagnosis: Non-small cell lung cancer with brain metastases

Secondary Diagnosis:

- 1. Rectal prolapse
- 2. Hypertension
- 3. Hydrocephalus secondary to brain metastases
- 4. Deconditioning

History of Present Illness: The patient is a 48-year-old male who presented to the emergency department with a chief complaint of rectal bleeding secondary to a rectal prolapse. At this time he was confused and provided a vague history of blurred vision for 2 to 3 weeks and headaches on and off.

Review of Systems: Positive for blurred vision, shortness of breath sometimes and pain on defecation.

Physical Examination:

Vital Signs:

General Appearance: It was also noted that he was quite confused on physical exam. HEENT: Eyes: Pupils were equal round and reactive to light. His oropharynx was clear.

Neck: Supple without thyromegaly.

Respiratory: On auscultation of the lung fields, he was clear to auscultation bilaterally Cardiovascular: He had a regular rate and rhythm with no murmurs, rubs or gallops. He had good femoral and pedal pulses.

Rectal Exam: He had a bleeding prolapsed rectum

Psychiatric: Decreased short-term memory and confusion

Laboratory Data: Labs on admission were significant for sodium of 134, potassium 4.1, chloride 102, CO2 of 22, BUN 12, creatinine 0.9, glucose of 112. White blood cells of 10.5, hemoglobin 9.3, hematocrit 21.8, platelets of 421,000.

He was admitted to the ICU.

Hospital Course: Problems: (1) Small cell lung cancer with brain metastases. The patient had a MRI with and without contrast of the head on November 17, 2007. It was found at this time he had four areas of abnormal enhancement consistent with metastatic disease. The largest was in the left cerebellar hemisphere pressing on the 4th ventricle and cerebellar aqueduct and a resulting obstructing hydrocephalus was identified. There was a mass effect also identified upon the pons and there was superior bulging without upward or downward herniation. The above

noted posterior frontal right parasagittal mass showed some evidence of prior hemorrhage. It was determined that the patient should undergo a craniotomy for resection of his brain metastases, to the point that this could be accomplished. He was taken to the OR on November 18, 2007, and successfully underwent a craniotomy. He was then started on November 27, 2007, on dose 1 of 15 of radiation therapy. He will complete the course of radiation as an outpatient and will follow with hematology oncology as an outpatient.

- 1. Rectal prolapse: The patient was seen on November 15, 2007, by colorectal surgery. He noticed his rectal mass, no acute surgical intervention was necessary at the time. They recommended conservative treatment for his rectal lesion including Vaseline dries and procto cream.
- 2. Deconditioning: The patient was highly deconditioned after his surgery, however, has been responding to PT and OT very well. He will continue receiving PT and OT as an outpatient through the Home Health organization.

Discharge Medications: The patient will be discharged home on the following medications regimen:

- 1. Percocet 5/325 mg 1 to 2 tablets by mouth every 4 to 6 hours p.r.n. pain
- 2. Bacitracin and zinc 500 units per gram 1 application topical daily as directed
- 3. Dexamethasone 4 mg 1 tablet by mouth every 6 hours. This is to be tapered as an outpatient by the hematology oncology clinic
- 4. Colace 100 mg 1 capsule by mouth twice a day
- 5. Nexium 40 mg 1 capsule by mouth daily
- 6. ProctoCream HC/1-1% 1 application rectally t.i.d.
- 7. Antivert 25 mg 1 tablet t.i.d.
- 8. Norvasc 2 mg 1 tablet by mouth daily
- 9. Lopressor 50 mg 1.5 tablets by mouth twice a day
- 10. Hydralazine 50 mg 1.5 tablets p.o. t.i.d.
- 11. Clonidine 0.1 mg 1 tablet by mouth t.i.d.

Diet: Low salt

Activity: As tolerated

Studies Pending: None

Follow Up:

- 1. The patient will follow up for the remainder of his radiation treatments as scheduled
- 2. He will have transportation provided for him
- 3. He will also have Home Health which includes a safety evaluation
- 4. Home PT and OT to treat his deconditioned status
- 5. The patient will also follow up with hematology oncology clinic in 1 to 2 weeks
- 6. The patient will have his dexamethasone dose tapered as an outpatient in clinic

Discharge Disposition: The patient will be discharged home in stable condition

Condition on Discharge: Stable

Radiology Report 11/17/2007

MRI Brain with and without Contrast

Clinical History: Left cerebellar lesion, RT frontal lesion, RT parietal-frontal/history of small cell carcinoma.

Results: Routine MRI of the brain was performed including T1, T2, flair, gradient echo, and diffusion weighted sequences. Post-contrast T1 sequences were obtained after administration of omniscan intravenous contrast. Stealth sequence was also performed for surgical planning. There is no prior exam available for comparison.

In the left cerebellar hemisphere there is a large ring enhancing mass which measures 5.3 x 3.9 x 3.2 cm which obliterates the fourth ventricle and cerebral aqueduct and shows some mass effect superiorly without overt upward or downward herniation identified. This mass also caused mass effect upon the pons. This is consistent with metastatic disease. In the right superior posterior frontoparietal location there is another enhancing mass measuring 1.3 cm which shows decreased gradient echo signal consistent with some prior hemorrhage. In the right frontal lobe a superficial 1.4 cm ring enhancing mass is also identified. In the left corona radiata there is a few millimeter small area of abnormal enhancement. These findings are also consistent with metastatic disease.

The third and lateral ventricles are dilated with transependymal flow consistent with hydrocephalus most likely secondary to posterior fossa mass effect on the fourth ventricle and cerebral aqueduct. The major vascular flow voids are present. The orbits, sella, paranasal sinuses, and surrounding visualized structures show no significant abnormalities.

Impression:

- 1. Four areas of abnormal enhancement are identified in the brain most consistent with metastatic disease. The largest of these is in the left cerebellar hemisphere causing compression of the fourth ventricle and cerebral aqueduct and resultant obstructive hydrocephalus as identified above. Mass effect is also identified upon the pons and there is superior bulging without overt upward or downward herniation.
- 2. The above-noted posterior frontal right parasagittal mass shows evidence of prior hemorrhage.
- 3. Stealth protocol sequence was obtained for surgical planning.

Doctor was notified of results at the time of the exam.

Operative Report 11/18/2007

Preoperative Diagnosis: Metastatic lung carcinoma to left cerebellum with hydrocephalus

Postoperative Diagnosis: Metastatic lung carcinoma to left cerebellum with hydrocephalus

Procedure: Left suboccipital craniotomy, excision of cerebellar tumor with neuro navigation

microsurgery

Anesthesia: General endotracheal

Estimated Blood Loss: 350 mL

Drains: None

Condition at End of Procedure: Satisfactory

Brief History: This 48-year-old man was seen in the hospital 2 weeks ago with headache and weight loss and was found to have a lung lesion. He was in the process of workup when he showed up with rectal bleeding, confusion and headache. A CT scan was obtained showing a large left cerebellar cystic tumor and 2 smaller supratentorial tumors. He has obstructive hydrocephalus associated with the cerebellar tumor. He was then transferred, MRI obtained and he was brought for excision of the cerebellar tumor.

Procedure in Detail: The patient was taken first to the MRI suite where fiducials were applied to the scalp and MRI obtained to allow for intraoperative navigation. He was brought to the operating room in the supine position under pre-medication on his bed intubated, induced with general anesthesia. A cannula was placed in the right radial artery for continuous blood pressure monitoring, a Foley catheter inserted, sequential compression devices applied to legs and various intravenous lines started. He was then turned to the prone position with the back raised and the neck flexed (Concorde position). The head was turned somewhat to the left and immobilized in this position with the Mayfield three-point skeletal fixation device. The findings were then registered to the neuro navigation system. The area of the transverse sinus identified, the tumor outlined and a strip of hair in the occiput on the left shaved. This portion of the scalp was prepped with Betadine and draped in a sterile fashion. A paramedian linear incision was outlined and injected with 1% Xylocaine and epinephrine.

The incision was carried through skin, galea and cervical fascia, bleeding controlled with bipolar coagulation and the skin edges retracted with Gelpi retractors. The suboccipital muscles were divided with the Bovie cutting current and elevated from the occiput with the cutting current and periosteal elevator and retracted with a cerebellar retractor and a Gelpi retractor. The transverse sinus was identified and two bur holes placed just below this, two bur holes placed inferiorly and these connected with the craniotome to form a small quadrilateral craniotomy. The bone flap was removed and saved for later replacement. Some additional bone was taken off of the inferior occiput to provide a little more space. Clean towels were then placed around the incision and the Greenberg retractor affixed to the Mayfield skeletal fixation device. The dura was

opened with a U-shaped incision hinged on the transverse sinus and retracted with 4-0 Nurolon sutures. The operating microscope was brought into the field. A transverse corticotomy over the cerebellar folia which were distended was made with the Bovie cutting current and cut with a 15 blade and using suction, the cerebellum opened. Immediately thick yellowish fluid came out under considerable pressure. It had been noted by MRI that the tumor was largely cystic. This was then followed down, the cerebellum retracted and necrotic appearing grayish tumor encountered. Specimens were sent to the laboratory and consistent with metastatic adenocarcinoma. The tumor was then removed using microsurgical technique with suction and bipolar. Some additional specimens were saved for permanent section. The tumor was quite necrotic, somewhat infiltrated into the cerebellum. There was not a clearly defined nodule, however, with suction this could be separated from the white matter of the cerebellum in a circumferential way and with the microscope it appeared that all gross tumor had been removed. With the tumor excised, Surgicel was placed in the tumor bed and some thrombin solution placed in the cavity. No bleeding was noted. The retractors removed, the dura was closed with interrupted 4-0 Nurolon sutures. A piece of Duragen was placed over the dura and the bone flap returned in place using a Synthes micro plate system with 2 bur hole covers and twelve 4 mm screws. The suboccipital muscles were then reapproximated with interrupted 2-0 Vicryl sutures. The cervical fascia and galea were closed with interrupted 2-0 Vicryl sutures. The subcutaneous tissue was close with inverted interrupted 3-0 Vicryl sutures and skin closed with skin staples. A Telfa and bacitracin dressing was applied to the wound and held in place with tape. The patient was then released from the skeletal fixation device. He was returned to the full supine position on his gurney, allowed to awaken from anesthesia, extubated, and left the operating room in satisfactory condition. He received 1 gram of Claforan and 12 mg of Decadron at the beginning of the procedure and bacitracin containing antibiotic irrigating solutions were used throughout.

Pathology Report 11/18/2007

Clinical Diagnosis: Brain tumor

Specimen:

1-2. Cerebellar brain tumor

Gross Description:

- 1. Received fresh is a 1 x 0.7 cm rubbery, soft, tan, hemorrhagic tissue fragment. Entirely submitted following frozen section.
- 2. Received in formalin are multiple fragments of rubbery, soft, somewhat papillary, tan-pink, hemorrhagic tissue measuring in aggregate 1.8 x 1.4 cm. Sectioned and entirely submitted in a single cassette.

Final Pathologic Diagnosis:

1 and 2. Cerebellar biopsies: Metastatic small cell undifferentiated carcinoma.

Radiology Report 11/19/2007

Head without Contrast

Clinical History: S/P Craniotomy

Results: Comparison: MRI Dated 11/17/2007. Without the administration of contrast axial images were obtained through the head.

Within the left cerebellar region there are postsurgical changes with a left suboccipital craniotomy, with pneumocephalus observed consistent with the patient's history of postop day 1 suboccipital craniotomy and excision of cerebellar metastatic lesion. Additionally, in the right frontoparietal area along the falx cerebri there is a well circumscribed rounded hyperdensity with surrounding vasogenic edema which is consistent with the patient's history of metastatic disease and is better delineated on MRI dated 11/17/2007. The fourth ventricle was slightly displaced to the right from the postsurgical changes and edema of the left suboccipital craniotomy. The remaining ventricles are normal in size for age and demonstrate no distortion by mass effect. There is no evidence of hemorrhage in the brain parenchyma. The extraaxial structures demonstrate no abnormal fluid collection or hemorrhage. The extracranial structures demonstrate no significant abnormalities.

Impression:

- 1. Left suboccipital craniotomy defect with pneumocephalus and shifting of the fourth ventricle to the right
- 2. Circumscribed rounded hypodense lesion in the right frontoparietal area with vasogenic edema, consistent with the patients history of metastatic disease.

Discharge Summary

Date of Admission: 04/20/2008

Date of Discharge: 04/23/2008

Chief Complaint: Abdominal pain

History of Present Illness: This is a 48-year-old gentleman, who is a patient of doctor, who comes to the ER today with complaint of abdominal pain, nausea, and anorexia the past few days. After being seen in the ER, he was discharged, and appeared in the Hematology/Oncology Clinic, in which he is currently being evaluated. He has a history of small-cell lung cancer with extensive metastases. He also had resection of brain metastases, with subsequent radiation, and has received 4 cycles of cisplatin and VP-16 with subsequent progression. He is currently on CPT 11, his last treatment being 4 days ago. He has completed 2 complete cycles. He is also jaundiced. He has lost about 5-6 pounds in the past month. He has no change in bowel habits, no hematochezia, no hematuria, no dysuria, no chest pain, and no shortness of breath.

Primary Diagnosis: Advanced small cell lung cancer with metastases to the liver, brain, and bone

Secondary Diagnosis:

- 1. Hypertension
- 2. Deconditioning

Physical Exam: The patient is in no apparent distress and alert. He is afebrile with vital signs stable. Exam is significant for scleral icterus, and a 1-2 cm rubbery nodule at the left mandible, which is mobile, an tender right upper quadrant and right lower quadrant with significant hepatomegaly, a normal spleen, general yellowing of the skin, but all other exam findings were normal, including pulmonary, cardiology, neurologic, and psychiatric.

Diagnostic Studies: Chemistries are unremarkable. Blood counts showed anemia of 8.2 and 24.1, and white count of 35 with 93% segmented neutrophils and 2% bands. He also had a platelet count of 554. His ammonia level was 58. Abdominal flat and erect x-ray showed hepatomegaly displacing bowels in the right upper quadrant, but nothing else abnormal.

Hospital Course: There was a high suspicion for metastatic spread to the liver of his small cell cancer. He was admitted from the clinic for pain control and for metastatic workup. A CAT scan was done of his chest, abdomen, and pelvis, with results as follows: A detrimental interval change in the liver with massive enlargement of such organ and near complete replacement of normal liver parenchyma by innumerable metastatic lesions, slight increase in the size of the left lower lobe lung mass, interval development of a few basilar opacities, minimal ascites, interstitial changes of the lungs bilaterally, non-obstructing left renal calculi, and bilateral renal hypodensities too small to be accurately characterized. Patient was given a poor prognosis with these imaging findings. His pain control management was fine-tuned, a Fentanyl patch was placed, and he was kept on p.o. Dilaudid with a p.r.n. basis. For his anemia, he was given 2 units of packed red blood cells, and his H H on discharge was 10.4 and 30.5. Also of note, complete

SUPPORTING TEXT EXERCISE LUNG CASE

metabolic profiles showed a significant set of abnormalities in the liver function profile, which consisted of extremely elevated transaminases and alkaline phosphatase. His AST on admission was 910 and ALT was 253, with an alkaline phosphatase of 457 and a total bilirubin of 1.1. Serum albumin was relatively normal at 3.3, and his total protein was low at 5.6. Those numbers were virtually unchanged by discharge. The patient was counseled on his very poor prognosis, and he agreed with hospice care at home, after which the Hospice Service was consulted.

Medications on Discharge:

- 1. Fentanyl patch 25 every 72 hours
- 2. Dilaudid 4-8 mg p.o. every 3-4 hours p.r.n. pain
- 3. Ativan 2-3 mg p.o. every 4-6 hours p.r.n. anxiety
- 4. Colace 100 mg p.o. twice daily
- 5. Oxygen at 2 liters per minute via nasal cannula p.r.n. shortness of breath
- 6. Ambien 5 mg p.o. at bedtime p.r.n. insomnia
- 7. Reglan 10-20 mg p.o. every 6 hours p.r.n. nausea, vomiting

Activity: No restrictions

Mobility: As tolerated

Diet: Regular

Follow Up: He is to be cared for by Hospice Services

Discharge Disposition: To home with hospice care, as above

Condition: Stable