TITLE OF OPERATION: , Central neck reoperation with removal of residual metastatic lymphadenopathy and thyroid tissue in the central neck. Left reoperative neck dissection levels 1 and the infraclavicular fossa on the left side. Right levels 2 through 5 neck dissection and superior mediastinal dissection of lymph nodes and pretracheal dissection of lymph nodes in a previously operative field.,INDICATION FOR SURGERY: , The patient is a 37-year-old gentleman well known to me with a history of medullary thyroid cancer sporadic in nature having undergone surgery in 04/07 with final pathology revealing extrafocal, extrathyroidal extension, and extranodal extension in the soft tissues of his medullary thyroid cancer. The patient had been followed for a period of time and underwent rapid development of a left and right infraclavicular lymphadenopathy and central neck lymphadenopathy also with imaging studies to suggest superior mediastinal disease. Fine-needle aspiration of the left and right infraclavicular lymph nodes revealed persistent medullary thyroid cancer. Risks, benefits, and alternatives of the procedures discussed with in detail and the patient elected to proceed with surgery as discussed. The risks included, but not limited to anesthesia, bleeding, infection, injury to nerve, lip, tongue, shoulder, weakness, tongue numbness, droopy eyelid, tumor comes back, need for additional treatment, diaphragm weakness, pneumothorax, need for chest tube, others. The patient understood all these issues and did wish to proceed.,PROCEDURE DETAIL: ,After identifying the patient, the patient was placed supine on the

operating room table. The patient was intubated with a number 7 nerve integrity monitor system endotracheal tube. The eyes were protected with Tegaderm. The patient was rotated to 180 degrees towards the operating surgeon. The Foley catheter was placed into the bladder with good return of urine. Attention then was turned to securing the nerve integrity monitor system endotracheal tube and this was confirmed to be working adequately. A previous apron incision was incorporated and advanced over onto the right side to the mastoid tip. The incision then was planned around the old scar to be excised. A 1% lidocaine with 1 to 100,000 epinephrine was injected. A shoulder roll was applied. The incision was made, the apron flap was raised to the level of the mandible and mastoid tip bilaterally all the way down to the clavicle and sternal notch inferiorly. Attention was then turned to performing the level 1 dissection on the left. Subsequently the marginal mandibular nerve was identified over the facial notch of the mandible. The facial artery and vein were individually ligated and marginal mandibular nerve traced superiorly and perifascial lymph nodes freed from the marginal mandibular nerve. Level 1A lymph nodes of the submental region were dissected off the mylohyoid and digastric. The submandibular gland was appreciated and retracted laterally. The mylohyoid muscle appreciated. The lingual nerve was appreciated and the submandibular ganglion was ligated. The hypoglossal nerve was appreciated and protected and digastric tunnel was then made posteriorly and the lymph nodes posterior along the marginal mandibular

nerve and into the parotid gland were then dissected and incorporated into the specimen for histopathologic analysis. The marginal mandibular nerve stimulated at the completion of this portion of the procedure. Attention was then turned to incising the fascia along the clavicle on the left side. Dissection then ensued along the floor of the neck palpating a very large bulky lymph node before the neck was identified. The brachial plexus and phrenic nerve were identified. The internal jugular vein identified and the mass was freed from the floor of the neck with careful dissection and suture ligation of vessels. Attention was then turned to the central neck. The strap muscles were appreciated in the midline. There was a large firm mass measuring approximately 3 cm that appeared to be superior to the strap musculature. A careful dissection with incorporation of a portion of the sternal hyoid muscle in this area for a margin was then performed. Attention was then turned to identify the carotid artery and the internal jugular vein on the left side. This was traced inferiorly, internal jugular vein to the brachiocephalic vein. Palpation deep to this area into the mediastinum and up against the trachea revealed a 1.5 cm lymph node mass. Subsequently this was carefully dissected preserving the brachiocephalic vein and also the integrity of the trachea and the carotid artery and these lymph nodes were removed in full and sent for histopathologic analysis. Attention was then turned to the right neck dissection. A posterior flap on the right was raised to the anterior border of the trapezius. The accessory nerve was identified in the posterior triangle and traced superiorly and

inferiorly. Attention was then turned to identifying the submandibular gland. A digastric tunnel was performed back to the sternocleidomastoid muscle. The fascia overlying the sternocleidomastoid muscle on the right side was incised and the omohyoid muscle was appreciated. The omohyoid muscle was retracted inferiorly. Penrose drain was placed around the inferior aspect of the sternocleidomastoid muscle. Subsequently the internal jugular vein was identified. The external jugular vein ligated about 1 cm above the clavicle. Palpation in this area and the infraclavicular region on the right revealed a firm irregular lymph node complex. Dissection along the floor of the neck then was performed to allow for mobilization. The transverse cervical artery and vein were individually ligated to allow full mobilization of this mass. Tissue between the phrenic nerve and the internal jugular vein was clamped and suture ligated. The tissue was then brought posteriorly from the trapezius muscle to the internal jugular vein and traced superiorly. The cervical rootlets were transected after the contribution, so the phrenic nerve all the way superiorly to the skull base. The hypoglossal nerve was identified and protected as the lymph node packet was dissected over the internal jugular vein. The wound was copiously irrigated. Valsalva maneuver was given. No bleeding points identified. The wound was then prepared for closure. Two number 10 JPs were placed through the left supraclavicular fossa in the previous drain sites and secured with 3-0 nylon. The wound was closed with interrupted 3-0 Vicryl for platysma, subsequently a 4-0 running Biosyn for the

skin, and Indermil. The patient tolerated the procedure well, was extubated on the operating room table, and sent to the postanesthesia care unit in good condition.