
Documentation Dissection

Pre-operative Diagnosis: Mesothelioma [1].

Post-operative Diagnosis: Same [1].

Procedure Performed: Bronchoscopy, right thoracotomy, pleurectomy, decortication, diaphragm resection, peroxide lavage, diaphragm reconstruction with goretex mesh, bronchoscopy [2].

Indications: 65 y.o. male with mesothelioma.

Anesthesia: GN/ET.

Operation in Detail: After informed consent the patient was identified and brought to the operating room. Time out was performed in a standard fashion. A single lumen endotracheal tube was advanced without difficulty. A flexible bronchoscopy was performed [3]. No evidence of malignancy was noted in the trachea or bronchopulmonary segments a double-lumen endotracheal tube was then inserted to facilitate the operation. An arterial line and central venous pressure monitoring line were placed.

The patient was placed in the lateral decubitus position, and an S-shaped posterolateral thoracotomy incision was extended downward to the costal margin [4]. The latissimus dorsi was divided and the serratus anterior muscle was spared. The sixth rib was resected, and the dissection was begun in the plane between the endothoracic fascia and the parietal pleura [5]. The pleural tumor was bluntly dissected away from the chest wall. The plane was then developed in a cephalad direction toward the apex. Care was taken in identifying the subclavian vessels and the aorta during the dissection. As each area of dissection was completed, packs were placed to aid in hemostasis. The pleura was then mobilized from the mediastinum. Once the upper portion of the lung was completely mobilized from the chest wall, the superior and posterior hilar structures were well exposed. The dissection then continued to the posterior aspect of the pericardium. A plane between the mediastinal pleura and the pericardium was formed. The dissection was then carried toward the posterior diaphragmatic sulcus. Deep involvement of the diaphragm was evident so we performed a full-thickness resection of the muscle [6]. The deep border of the diaphragm was then dissected from the peritoneum. The specimen was then mobilized en bloc back toward the pericardium medially. Once the dissection was completed to the hilar structures, the parietal pleura was opened, and the pleural envelope was entered and decortication of the visceral pleura was performed. Mediastinal Lymph node dissection was then carried out, and specimens were labeled and sent separately to the pathologist [7].

We performed Argon ablation to all visible surfaces of the lungs, chest wall and diaphragm [8].

Due to hemodynamic instability and blood loss decision made not to perform chemotherapy. Instead, peroxide lavage was performed [9].

The diaphragm was reconstructed with a Gore-Tex dual mesh. The mesh was secured laterally by placing sutures around the ribs posteriorly, it was sutured to the crus and tacked to the prevertebral fascia. The medial aspect was sewn to the remaining edge of the diaphragm at its confluence with the pericardium [10].

Three chest tubes and a blake were placed [11]. Para-costal stitches were used to reapproximate the ribs. The fascial layers of the serratus and latissimus were reapproximated. The soft tissue and skin were closed in multiple layers of absorbable suture.

A sterile dressing was applied to the incision site. Instrument and sponge counts were correct at the end of the procedure.

A bronchoscopy was performed and all secretions were removed at the end of the procedure.

All sponge and needle counts were correct and there were no complications. The patient was awakened, extubated, and returned to the postoperative recovery room in stable condition.

Findings: Mesothelioma.

Implants: Goretex mesh.

Complications: None.

Disposition: Patient was transferred to ICU.

- ^[1] Confirmed Dx same as Pre-op.
 - ^[2] Procedure listed as performed.
 - ^[3] Bronchoscopy performed to view trachea to bronchus.
 - ^[4] Patient is lying on their side.
 - ^[5] Thoracotomy and dissection of tumor.
 - ^[6] Involvement was extensive and diaphragm muscle is resected.
 - ^[7] Lymph nodes are removed and sent to pathology.
 - ^[8] Ablation is a destruction method that freezes the tissue. Argon is a cold gas (cryoablation).
 - ^[9] Peroxide is an antiseptic used to wash out the surgical site.
 - ^[10] Mesh is used to reinforce the area where the diaphragm was removed.
 - ^[11] Chest tubes are placed to allow drainage of fluids and blood in the surgical site. A Blake is a brand of drain. These are not separately billed.
-

What are the CPT® and ICD-10-CM codes reported?

CPT® Codes: 32320, 39561-51, 31622-59, 38746

ICD-10-CM Code: C45.0

Rationales:

CPT®: Because of the complexity of this procedure it is important to read the descriptions of the codes and instructional notes provided for each code. A pleurectomy with decortication is a procedure performed for patients with mesothelioma. The lining of the lung (pleura is removed along with any other identified tumors. This does not remove the lung itself. The decortication removes cancerous tissue, and in this case is done by destruction (ablation). Look in the CPT® Index for Decortication/with parietal pleurectomy which leads to 32320.

The diaphragm is resected and reconstructed using mesh and biomedical products. Look in the CPT® Index for Resection/ Diaphragm which offers choices of 39560, with a simple repair and 39561, with complex repair 39561 Resection, diaphragm; with complex repair (eg, prosthetic material, local muscle flap) is used and includes the use of the mesh. Look in the CPT index for Bronchoscopy/Exploration offers choices 31622, 31624, 31647, 31651. Review of the codes shows 31622 *Bronchoscopy, rigid or flexible including fluoroscopic guidance*, when performed, with cell washing, when performed (separate procedure). This code will require Modifier 59 as we are following CPT® Guidelines for separate procedures.

Look in the CPT® Index for Thoracotomy/lymphadenectomy/Thoracic which leads to 38746. Verification of the code shows this to be an add-on code and exempt from Modifiers. Instructions state to use this code in conjunction to the primary code, showing 39561 and 32320 both listed.

ICD-10-CM: Mesothelioma is a tumor of the tissue that lines the lungs, stomach, heart, and other organs. Mesothelioma is the histologic term that has a specific indexing in the Alphabetic Index. In the ICD-10-CM Alphabetic Index, look for Mesothelioma/ by site classification/pleura C45.0. Look for Mesothelioma in the Table of Neoplasms which does not provide a code but instructs to see Mesothelioma. Looking in the Table of Neoplasms will lead to an incorrect code - If the look-up starts in the Table of Neoplasms/Pleura it leads to C38.4.
