Surgical intervention for thoracic outlet syndrome improves patient’s quality of life

The authors evaluate quality of life outcomes in patients following transaxillary first-rib resection and scalenectomy for thoracic outlet syndrome (TOS) in both neurogenic and venous etiologies. They conclude that, in a select population, surgical intervention can improve quality of life in both subsets.

Both the transaxillary and the supraclavicular approaches to the thoracic outlet, from a coding perspective, are identical. In the neurogenic patient, decompression of the brachial plexus is reported by CPT code 64713. This may be accompanied by removal of the first rib without (CPT code 21615) or with (CPT code 21616) cervical sympathectomy. Division of the scalenus anticus is reported without (CPT codes 21700) or with (CPT code 21705) cervical rib excision. Those patients with a venous etiology usually do not require brachial nerve decompression but all other procedures listed above are appropriate.

The initial approach to patients with venous TOS is generally by endovascular methods. The diagnosis is confirmed by venous imaging. At first, catheterization of the upper extremity peripheral vein (CPT code 36005) is performed with unilateral extremity ascending venography (CPT code 75820). If an endovascular clot debulking procedure is considered, the catheter is then passed through the occlusion into the superior vena cava (CPT code 36010 replaces 36005). A superior vena cavagram (CPT code 75827) may then be performed.

Treatment with infusion of thrombolytic agents before TOS decompression may be employed to open the occluded axillary and/or subclavian vein. Keep in mind that there is a difference between injection and infusion in the CPT manual. The CPT codes for thrombolysis (CPT codes 37201 and 75896) necessitate an actual delivery by pump of the agent in an area outside the angiography suite. Instilling a thrombolytic drug as a bolus by hand through the catheter is termed “injection” and, therefore, not reimbursable. Follow-up angiography when the patient returns to the angiography suite is performed through the existing catheter (CPT code 75898). It is inappropriate to re-bill the thrombolytic codes as they describe initiation of therapy and not continued infusion on subsequent dates of service. Additionally, the infusion catheter may be exchanged to continue thrombolysis and reposition the catheter for optimal drug delivery. The removal and replacement of this catheter is described by CPT codes 37209 and 75900.

Lastly, venous mechanical thrombectomy (CPT code 37187) may be appropriate to lessen the clot burden. After debulking, infusion of thrombolytic agent by pump as described above is not bundled in this service and remains separately reportable. Follow-up venous mechanical thrombectomy (CPT code by 37188) is described per subsequent session. Both codes include injection of any thrombolytic during the session. If venous mechanical thrombectomy was initiated on the second day of thrombolysis, CPT code 37187 would still be reported since these codes are independent of the thrombolytic infusion descriptions.

After patency is restored and thoracic outlet decompression has occurred, many institutions repeat venography. Residual stenosis is often treated with angioplasty (CPT codes 35476 and 75978) or intravascular stent placement (CPT codes 37205 and 75960).

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