



Operative Note – Circulatory System

PREOPERATIVE STATUS AND DIAGNOSIS: A 50-year-old patient was admitted with an initial STEMI of the left anterior descending and severe coronary artery disease. He was sent to the O.R. for therapeutic treatment.

NAME OF PROCEDURES:

1. Coronary artery bypass grafting x3

- Left internal mammary artery side-to-side to the proximal left anterior descending artery and end-to-side to the distal left anterior descending coronary artery.
- Reversed saphenous vein graft sequential end-to-side to the obtuse marginal.
- Reversed saphenous vein graft to the right coronary artery.

2. Endoscopic harvesting of the greater saphenous vein from the left leg.

OPERATIVE FINDINGS: Adequate left internal mammary artery and saphenous vein. Diffuse disease of the coronaries.

ESTIMATED BLOOD LOSS: 500 mL.

DESCRIPTION OF PROCEDURE: Under general anesthesia and endotracheal tube, the patient was prepped and draped in the usual fashion. Using a 2-team approach, a median sternotomy incision was made with a scalpel and the sternum was split at the midline. The left internal mammary artery was dissected off the left chest and the greater saphenous vein was harvested from the left leg using the endoscopic approach with video assistance. The pericardium was opened and then we proceeded to place a 20-French DLP cannula in the ascending aorta and a 2-stage venous cannula in the right atrium. The patient was placed on cardiopulmonary bypass

and the bladder temperature was brought down to 35 degrees Celsius. A cross-clamp was applied and several doses of blood cardioplegia were given antegrade and through the saphenous vein. The obtuse marginal was opened and using a reversed saphenous vein graft, an end-to-side anastomosis was done with Prolene #7-0 in a running fashion. The right coronary artery was opened and using a reversed saphenous vein graft, an end-to-side anastomosis was done with Prolene #7-0 in a running fashion. With the cross-clamp on, 2 proximal anastomoses were done with Prolene #6-0 in a running fashion. Subsequently, we proceeded to open the proximal portion of the left anterior descending artery and using the left internal mammary artery, a side-to-side anastomosis was done with Prolene #7-0 in a running fashion. Subsequently, we proceeded to open the distal left anterior descending artery and then using the same internal mammary artery graft, an end-to-side anastomosis was done with Prolene #7-0 in a running fashion. The cross-clamp was released for a total cross-clamp time of 105 minutes. Ventricular pacemaker wires were inserted and the patient was weaned off cardiopulmonary bypass for a total pump time of 118 minutes. Subsequently, Protamine was given and the lines were removed that were used for cardiopulmonary bypass. Two drains were placed in the mediastinum and 1 in the left pleural space. The sternum was closed with interrupted stainless steel wires #5. The linea alba was closed with Vicryl 1-0 in a running fashion, the subcutaneous tissue was closed with Vicryl #2-0 and 3-0 in a running fashion and the skin was closed with PDS #4-0. The leg was closed with Vicryl #2-0 and 3-0 in a running fashion and the skin was closed with PDS #4-0.

Answer:

ICD-10-CM

I21.02 – ST elevation myocardial infarction involving left anterior descending coronary artery

I25.10 – Atherosclerotic heart disease of native coronary artery without angina pectoris

ICD-10-PCS

021109W– (CABG, 2 arteries using autologous venous (saphenous) tissue) – Saphenous→obtuse marginal and Saphenous →RCA)

02100Z9 – (CABG, 1 artery, no device (LIMA)) – LIMA→proximal left anterior descending and distal left anterior descending)

06BQ4ZZ – Endoscopic harvesting of the left greater saphenous vein

5A1221Z– Cardiopulmonary bypass

[5A1223Z] – Temporary ventricular pacemaker wires

Rationale: Coronary arteries are classified by the number of arteries. <PCS Guideline, B4.4>. In addition, multiple coronary arteries bypassed with a different device or qualifier are assigned separate codes <PCS Guideline, B3.6c>. Harvesting of an autograft from a different body part to complete the objective of the procedure is coded separately <PCS Guidelines, B3.9>

The closure of the operative site is not coded separately. <PCS Guidelines, B3.1b.)

If the LIMA is used but remains attached (i.e., not excised from the patient) a separate code should not be reported for the harvesting of the LIMA but rather is assigned a device of “Z-no device”. <AHA, Coding Clinic for ICD-10-CM/PCS Q3, 2014>

The assignment of the temporary pacemaker is arguably necessary since it is generally considered integral to the procedure.