Unusual course of left internal thoracic artery

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The internal thoracic artery (ITA) arises from the anteroinferior aspect of the first part of the subclavian artery in most people, although it can originate elsewhere.¹ The ITA passes inferomedially and enters the thorax behind the cartilage of the first rib, runs along the chest wall, and usually terminates at the level of the sixth intercostal space by dividing into its 2 terminal branches, the musculophrenic and the superior epigastric arteries. We recently performed a coronary artery bypass grafting in which we encountered an unusual course of the left ITA (LITA) during ITA harvesting. Instead of its usual course along the chest wall after entering the thorax, the LITA followed a downward course, descending straight down along the pleura medially, approached close to the phrenic nerve along the pericardium, and then took an upward course along the pleura to run back to the chest wall (Figure 1). This unusual course made it susceptible to injury during the LITA harvesting, especially during the opening of the pleura, because it could have been easily confused with a pleural branch. The anomalous course was identified early during the LITA harvesting, thus avoiding any surgical damage to it. Although rare,

FIGURE 1. Unusual proximal course of the LITA (arrow) along the medial parietal pleura.

this unusual course should be watched for during LITA harvesting, because damage to the ITA could compromise the coronary artery bypass graft operation.

Reference

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