Damage to an internal mammary artery graft at dissection

The internal mammary artery makes an excellent coronary graft with the potential for long-term patency and consequent relief of angina, freedom from infarction, and an improved chance of survival. But dissecting it and sewing it on is not enough—it has to provide blood flow. One hears loose talk about "spasm" and unsubstantiated remarks about its cause and many ways of relieving it. But canny surgeons like to see a brisk flow of blood come out at the end of the graft before committing the future of the LAD territory to what is, at the time of operation, often an insubstantial little artery. An internal mammary artery that was not accepted on this basis is shown here, cut open longitudinally. A circumferential intimal flap was revealed—the result presumably of inadvertent traction during dissection by an inexperienced operator. This pathological entity is well recognised in limb arteries where it is due to abrupt traction at the time of injury. The arterial pulse does not return after the fracture has been reduced and an intimal flap, with overlying thrombus, is found on exploration of the artery. The same lesion can occur in the internal mammary artery, as shown here, and would be a more potent cause of postoperative ischaemia than "spasm".

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