

# Pleurotomy and Pleural Complications in Modern Coronary Surgery

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In coronary artery bypass surgery through sternotomy, it is common to breach the left pleural cavity (perform pleurotomy) while harvesting the left internal thoracic (mammary) artery.

Light et al have shown that this could lead to post-operative left pleural complications (1). We feel that this work favours extra-pleural harvesting of the left internal thoracic (mammary) artery, a practice we have been 'intuitively' supporting for some time (provided the pedicle can be safely deployed away from the left lung and thus free from compression within the closed thorax post-operatively). One would be tempted to extrapolate these findings to the most recent advances of coronary surgery:

Taking down bilateral internal thoracic arteries (2), temporarily dislocating the heart into the right pleural cavity in beating heart (3), and accessing the heart through thoracotomy or thoracoscopy in minimally invasive and computer enhanced ('robotic') procedures (4), may all lead to (unilateral or bilateral, controlled or incidental) pleurotomies.

The prevalence of bilateral pleural complications (after bilateral internal thoracic arteries harvesting or robotic procedures with bilateral thoracoscopy) might be of particular interest: If unilateral post-coronary bypass pleural collection is as common, should we expect bilateral pleurotomies to cause proportionally higher morbidity, costs and perhaps mortality? This hypothesis has not been tested as yet in adequately powered pragmatic studies. Is it perhaps due to the relatively small number of cases so far attenuating the power of such a project? A clear evaluation of pleural complications in modern coronary surgery would assist in developing strategies for peri-operative care, including management of tube thoracostomies (chest drains) and also the delivery of optimal primary care postoperatively. This could potentially improve long term clinically important outcomes. Can we expect the Nashville team to scrutinize in time the new evolving practices of coronary surgery?

## Footnotes

**Source of Support:** Nil

**Conflicts of Interest:** Nil.

## References

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