

Video-atlas of extrapleural pneumonectomy

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This is a step-by-step video demonstration of a left extrapleural pneumonectomy for malignant pleural mesothelioma, including thoracotomy incision, extrapleural mobilization of tumor, resection of diaphragm, mediastinal nodal dissection and division of hilar vessels followed by reconstruction of diaphragm and closure of the thoracotomy.

Key Words: Extrapleural pneumonectomy (EPP); malignant pleural mesothelioma



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This issue of the *Annals of Cardiothoracic Surgery* includes a step-by-step description of the techniques for extrapleural pneumonectomy (EPP) and extended pleurectomy/decortication (P/D) along with a video of a left-sided EPP. The video illustrates the extended posterolateral thoracotomy incision used for both of these operations along with extrapleural mobilization of the tumor (*Video 1*). This is followed by mobilization of the diaphragmatic portion of the tumor, then mediastinal lymphadenectomy and either intra- or extra-pericardial approach to the hilar vessels (depending on the extent of pericardial disease). For an EPP, the mainstem bronchus is then ligated and divided followed by individual division of the hilar vessels, usually moving from the inferior pulmonary vein upwards to the main pulmonary artery. After removal of the EPP specimen, the diaphragm is reconstructed with a non-absorbable prosthetic patch. If the pericardium is resected, it is also

reconstructed, preferably with absorbable material.

Careful patient selection and meticulous surgical technique have led to a dramatic decrease in surgical morbidity and mortality since EPP was first popularized by Butchart about 30 years ago. It is still best done in centers of excellence where experienced surgeons, anesthesiologists and nurses can work together to minimize risk throughout the perioperative period. The standardization of operative technique has also been critical in making EPP a safer operation. We hope that the chapters and videos on the surgical technique for EPP and P/D will effectively share our technical experience with other surgeons around the world for the benefit of our MPM patients.

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