Video-assisted thoracoscopic extrapleural pneumonectomy for malignant pleural mesothelioma

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This video demonstration represents our first attempt at video-assisted thoracoscopic extrapleural pneumonectomy (EPP) for a 51-year-old patient with right-sided malignant pleural mesothelioma following neoadjuvant chemotherapy (Video 1). While originating as an initial inspection for a possible radical decortication, it was apparent that the tumor was involving the diaphragm. The details of this case history were reported elsewhere. The patient's discharge planning was intercepted by signs of an infection that was treated successfully by right thoracoscopic empyema drainage. The patient underwent 14 days of intrapleural antibiotic irrigation without patch removal. He was discharged on day 30. The patient succumbed from an abrupt illness, possibly hepatitis, one year after this operation (1).

There are elements of this video that might be of use for other complex video-assisted thorascoscopic operations. For instance, several methods that manage broad fields of capillary oozing are demonstrated. An aggressive intrapericardial exposure, near complete diaphragm resection, and large volume tissue controls are described. It has to be acknowledged that this surgical approach

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should only be used in highly selected cases by experienced surgeons. Also demonstrated in this video is that an entire surgical specimen can be removed through a 4 cm access incision without rib injury provided the specimen is oriented in a manner to be extracted as a thin cylinder rather than a fat sphere. Finally, our techniques to reconstruct the defects of the pericardium and the diaphragm through a complete thoracoscopic approach are shown. To the best of our knowledge, this is the first video article demonstrating video-assisted thoracoscopic EPP.

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References

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