

Video Assisted Thoracoscopic Surgery (VATS) Safety and Feasibility in Benign Pathologies?

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Operational Definition

Therapeutic VATS procedure

Operating using scope and camera for therapeutic intent through ports without putting a rib spreading retractor.

Benign intrathoracic disease

Any non-malignant lesion involving or caused by pathology within the chest cavity. Histological confirmation of the benign nature of the lesion, if not already available, was obtained by frozen section.

Feasibility of VATS

The ability of finishing the operation with VATS without the need for doing a thoracotomy, putting a chest retractor or need for early revision.

Duration of the procedure

It was defined as the time elapsed from patient entry to or to transfer to postoperative ICU.

Complications and outcome

They were defined as intraoperative bleeding hemodynamic instability. Need for early reoperation. The need for conversion to open thoracotomy was considered as outcome. Criteria for intraoperative conversion of the VATS procedure to open thoracotomy include uncontrolled bleeding, dense pleural adhesion, extended resection and/or suspicion of unresectability.

Results

Two hundred and twenty three patient admitted to the service between March 2009-May 2013. 62.8% (140) were males and 37.2% (83) were females. upon looking through the clinical presentation of the patients we found 10 different categories of benign intrathoracic diseases the most commonly operated was hyperhidrosis (35.9%) followed by pneumothorax (20.6%) and pleural effusion (19.3%). Clotted Hemothorax in 8.9% of cases, 5.4% for pectus excavatum, 4.9% for mediastinal mass or cyst, combined benign diseases were found only in one patient (pneumothorax and pectus excavatum) which represent 0.4% of cases.

Operation site were unilateral in 63.2% of cases, right side 34.1% and left side 29.1%. Bilateral operation site were found in 36.8%.

According to the type of operation, 10 types of operation were done including combined operation (pectus excavatum repair and wedge resection, pleurectomy) as a separate entity representing only 0.4%. 38.1% of cases underwent sympathectomy, 23.3% wedge resection, 16.6% drainage of pleural effusion, 7.6% dot evacuation of hemothorax, 5.4% Nuss operation for pectus excavatum repair, 3.6% cyst excision, 2.7% decortication for pleural effusion, 1.8% mediastinal mass excision, 0.4% exploration for diaphragmatic hernia and 0.4% combined procedure (wedge resection with apical pleurectomy + repair of pectus excavatum).

Number of port used were 2 ports in most of the cases (49.8%), 31.8% done using 3 ports and 17.9% used only one port. Uniportal procedure were for repair of pectus excavatum and sympathectomy in

the last 2 years in most cases, exploration, drainage of pleural effusion and evacuation of hemothorax in one case.

Only one case need 4 ports, bullous lung disease counts for 0.4% of cases.

Mean days of drainage were 2.9. Drainage days were further subdivided into 3 groups, 1-2 drainage days in 30.5% of cases, 3-4 days in 32.7% and 5 days and more in 19.7% of case. no chest tube drainage applied in 17% of cases for Nuss operation and cases of sympathectomy from late 2011, longest drainage period were 20 days in 2 cases, one were for bullous lung disease and the other were spontaneous pneumothorax.

Complication occurs in one case of hemothorax who had a cardiac arrest during procedure which necessitate internal massage and continue procedure via open thoracotomy. Conversion to open

