Thoracic Surgery: Henry Ford Approach

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"Standard" Thoracotomy



VATS Lobectomy



VATS Lobectomy

- Same operation
- Hilar dissection/individual vessel ligation
- Complete MLND
- Shorter LOS, quicker recovery, quicker time to adjuvant therapy

VATS: RUL

Robotic "Revolution"





Robotic Lobectomy





Robotic Lobectomy RUL

2 Weeks s/p Robotic Lobectomy





Lung Cancer: the Future

- Robotic lobectomy: ?advantages
 - Visualization, visualization, visualization
 - Better LN harvest?
 - Avoidance of "utility" thoracotomy

Disadvantages

- -start up cost
- -lack of haptic feedback
- -current size of platform

Anterior Mediastinal Mass

- Traditional approach is median sternotomy
- Minimally invasive approaches gaining acceptance
- Current approach is robotic
 - Three 1 cm incisions in right chest
 - Patients usually discharged from hospital on POD 1 or 2
 - Superior cosmesis/shorter recovery

Achalasia: port placement



Achalasia: short video

Minimally Invasive Ivor Lewis Esophagectomy (MIILE)





MIILE



MIILE: Creation of Conduit

Robotic Ivor-Lewis



Docking: Robotic I-L



Robotic Ivor Lewis

Intrathoracic Anastomosis

Real Time Ischemic Assessment with "Firefly"

2 Weeks s/p Robotic IL





MIILE: Current Technique

- Laparoscopic gastric mobilization/LN dissection
- Pyloroplasty
- Laparoscopic jejunostomy tube
- Robotic esophageal mobilization/MLND
- Intrathoracic anastomosis at/above level of azygous vein

MIILE: Current Technique

- Patients extubated in OR
- Jejunostomy feeds initiated at 24 hours
- BAS on POD 4 or 5
- Clear liquid diet/cycled TF if BAS OK
- D/C home on POD 6/7
- Gradual advance to solid diet/weaning of TF over 4-6 weeks
- J tube removed in office 4-6 weeks

Esophageal Cancer: the Future

- Robotic approach: potential advantages?
 - Visualization
 - Precision of instruments
 - 2-3 cm low anterior "thoracotomy"
- Search for serum biomarkers/patterns