Lateral retropleural approach

General information

An extra-coelomic approach, does not violate the pleural space. If the parietal pleura is entered the procedure is essentially the same, but is considered a “trans-thoracic” approach.

Check a pre-op MRI or CT for the location of the aorta and to rule out aortic aneurysm which is a relative contraindication. For a herniated thoracic disc, a pre-op CT is necessay to determine if the disc is calcified, which alters the technique. A dual lumen endotracheal tube is not required.

Equipment

The same retractor (e.g.the MaxcessTM retractor by Nuvasive) used for lateral lumbar interbody fusion may be used with blade extenders and an “egg beater” center blade to retract the lungs. The retractor is “reversed” so that the center blade is positioned anteriorly and the table adapter arm is connected to the posterior “poker chip” on the retractor so that when the retractor is expanded in the AP direction, the lung retractor blade moves anteriorly and the lateral blades stay stationary.

The following additional instruments are needed:

● endo-Kitners (Kitners at the end of a “stick”)

● Doyen rib separators

● Alexander periosteal elevator or Pennfield #1 dissector

● rib shears

● extra long instruments, including: e.g. long Midas Rex drill (21 cm attachment: 21TU with 21MH30 dissecting tool) and/or BoneScalpel, suctions, Kerrison rongeurs...

● Intraoperative electrophysiologic spinal cord monitoring is usually used (typically SSEP & MEP).