USE OF VATS FOR PLACEMENT OF PLEURAL CATHETERS

BACKGROUND: Malignant pleural effusions (MPEs) usually present with shortness of breath. MPE portends a poor prognosis yielding an average survival of 3-9 months. A clear consensus exists on the use of indwelling catheters in patients with poor performance status. Often, these catheters are placed percutaneously, which can lead to complications like misplacement and bleeding. Also, placement via the percutaneous approach requires a certain amount of fluid to be in the pleural space or else the intended procedure can not be performed. We discuss the option of an indwelling pleural catheter placed with a video assisted thoracoscopic approach under sedation.

METHODS: Medical thoracoscopy was conducted with a rigid thoracoscope. A 10 mm 30-degree video thoracoscope is used. Patients are placed in a semi-lateral decubitus position with conscious sedation using diazepam or benzodiazepine. The lateral area of chest is sterilized and draped. Local anesthesia is given via 10 mL of 1% lidocaine to the selected intercostal space for entry. Thoracoscopy is performed with a single 2 cm incision in the sixth intercostal space along the posterior axillary line. A stab incision is made approximately 4 cm medial from the access site in order to tunnel the indwelling pleural catheter.

RESULTS: The use of video thoracoscopy obviates the requirement of a large amount of pleural fluid to be present in order to perform the procedure. Direct visualization allows for precise placement of the catheter. In addition, one is able to perform any adjunctive procedure such as adhesiolysis or a chemical pleurodesis This approach also affords one the opportunity to obtain a pleural biopsy for diagnostic purposes. The catheter can be directly placed to a pleurovac if the patient is in the hospital or can be immediately capped and discharged home after the procedure. Single lung ventilation is not needed. Use of insufflation is optional, but useful if visualization is limited.

CONCLUSIONS: The use of video assisted thoracoscopic approach with sedation for placement of a chronic indwelling catheter can be done effectively and safely. This technique offers several advantages compared to the percutaneous approach. Specifically, it offers the ability to visualize the exact placement of the catheter. Also, one can perform a confirmatory pleural biopsy if pathology of the etiology of the recurrence of pleural effusion is still in question. Limited visualization via the VATS technique can be mitigated with the use of CO_2 insufflation.



