A Propensity-Matched Comparison of Pleurodesis or Tunneled Pleural Catheter for Heart Failure Patients With Recurrent Pleural Effusion

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This retrospective study involved reviewing the records of patients who were undergoing treatment for recurrent, symptomatic, pleural effusion secondary to advanced heart failure and who had undergone at least two unilateral thoracenteses. All of the patients were treated by the same surgeons at the Department of Thoracic and Cardiovascular Surgery, St. Vincent Hospital, Indianapolis, Indiana. Eighty (80) patients were selected from the (144) cases that were reviewed. These patients were propensity-matched using sex, age, inpatient status, NYHA Classification and mean Charlson index. There were (40) patients selected each for the (2) treatment cohorts: thoracoscopic pleurodesis (TP) and the use of a tunneled pleural catheter (TPC) (Pleurx catheter; CareFusion, San Diego, CA). Thoracoscopic pleurodesis is considered to be the traditional treatment for this indication.

No significant differences in palliation from their effusion as determined based on a lack of reintervention (TP-5%, TPC-2.5%) demonstrated during the follow-up period (TP-7 months+/- 3 & TPC-6 months +/-2) and the improvement in performance scores. However, the TPC group realized a significantly shorter hospital stay (TP-6+/-4 days, TPC-2+/-2days) as well as a lower rate of operative morbidity (TP-20%, TPC-2.5%) and readmissions (TP-23%, TPC-5%) than patients undergoing TP.

At last available follow-up, mean survival of the two groups was also comparable. None of the patients treated required further intervention for an ipsilateral pleural effusion. TPC should be considered for palliation of patients with recurrent pleural effusion due to advanced heart failure.