Management of Recurrent Malignant Pleural Effusions

An Ever-Recurring Issue?

To the Editor:

We read with great interest the CHEST Point/Counterpoint Editorials by Lee and Light (July 2012) on thorascoposcopic talc pleurodesis (TTP) vs an indwelling pleural catheter and would like to make several comments. The value of thorascoscopic assessment of the pleural cavity during ttp poudrage has not been carefully studied. Thorascoscopy circumvents the limitations of a blind ttp application through a chest tube, which, as pointed out by Dr Lee, can only be successful with adequate apposition of the visceral and parietal pleura. Thorascoscopy, which is commonly done with local anesthesia or conscious sedation in the outpatient setting, allows for debridement, lysis of adhesions, and optimal ttp pleurodesis.

Regarding the study by Dresler et al, we agree that the post hoc subset analysis showing a better efficacy of TTP over talc slurry is, at best, hypothesis generating. However, we would like to point out that the complications reported in the TTP arm were staggering, with blood transfusion, atelectasis, pneumonia, respiratory failure, and postoperative death in 4.5%, 1.3%, and 8.1%, and 8.4% of patients, respectively. These results do not reflect those described by pulmonologists around the world. It is difficult to argue against the large body of safety data for talc pleurodesis in light of two multicenter prospective European studies. To answer Dr Light’s concern about the study by Janssen et al., one of the authors (P. A.) was involved in both studies and can attest to the extreme caution used in determining the causes of respiratory manifestation observed after talc pleurodesis.

Regional differences in health-care delivery rather than data on efficacy and safety often dictate management. In that context, the data provided by the only cost-effectiveness analysis available, as quoted by both authors, is of questionable relevance outside of the United States. Furthermore, short drainage times after ttp pleurodesis with limited hospitalization have been shown to be effective. It is difficult to imagine that a short initial hospitalization and a literally dirt-cheap pleurodesis agent would offset the cumulative cost and out-of-pocket expenses required for the management of indwelling pleural catheters and their complications. Considering that the calibratated French ttp used in the majority of countries (but not in the United States) has a proven record of short- and long-term safety and efficacy, we anticipate that talc pleurodesis will remain the standard of care chosen by most pulmonologists around the world.

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REFERENCES


Response

To the Editor:

I commend Dresler et al. for their points in support of thoracoscopic talc poudrage (TTP) as the first choice for malignant pleural effusion. Light based his rebuttal on the study by Dresler et al. where patients with malignant pleural effusions had to demonstrate >90% lung expansion before they received talc slurry via chest tube or TTP. Thirty-two percent and 27% of patients randomized to talc slurry and TTP groups, respectively, were excluded, and they could have trapped lungs from pleural loculations and extensive tumor load for which thoracoscopic adhesiolysis would be beneficial by promoting fluid drainage and lung expansion. Complications associated with TTP performed by surgeons in these patients with good Eastern Cooperative Oncology Group status (0-2) were higher than those in the published literature, particularly blood transfusion (4.5%), respiratory failure (8.1%), and postoperative death (8.4%). The type of talc used was also unclear, because small-particle talc could have caused respiratory failure. A trial involving 15 centers in Europe and one center in South Africa demonstrated the safety of TTP with large-particle talc (mean size, 24.5 μm). TTP was performed by pulmonologists in 558 patients with Karnofsky scores >30 or Eastern Cooperative Oncology Group <4. Thirty-day mortality was markedly lower, at 1.9%. Only one patient (0.17%) developed respiratory failure from contralateral pneumothorax, and no patient required surgical bailout or blood transfusion. In his

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letter to the editor, Medford estimated the cost benefits of medical thoracoscopy. Although he referred to patients with unexplained pleural effusions, the arguments of a shorter wait period to perform pleurodesis and a shorter hospital stay with TTP compared with talc slurry would favor TTP as the more cost-effective treatment of malignant pleural effusion against indwelling pleural catheter if patient survival exceeds 6 weeks.

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References

Hospitalization Due to COPD Exacerbation

To the Editor:

I read with interest the editorial of Rabe in CHEST (August 2012), and I want to share his claim on the quality of data sets not only for retrospective cohort studies but also for randomized controlled trials. It has been suggested that admission to hospital for acute exacerbations of COPD (AECOPD) allows the identification of a subgroup of patients with a poorer prognosis. The study of Soler-Cataluña et al confirmed that severe AECOPD, that is, exacerbation episodes requiring hospital management, exert a direct and independent effect on the survival of patients with COPD. García-Aymerich et al reported a 50% mortality rate at 5 years following at least one COPD hospitalization. Mortality rate after COPD-related admission was 55% at 5 years in a large cohort of Veterans Affairs patients (N = 51,353). When that rate was compared with other diseases, it was close to oncologic mortality range. The four most common malignancies in developed countries have the following 5-year relative survival rates: 73% to 89% for breast cancer, 50% to 99% for prostate cancer, and about 43% to 63% for colorectal cancer. Only lung cancer, which has the worst survival rate (12-18%), appeared far beyond AECOPD mortality. Does AECOPD hospitalization as a marker of severity constitute one more inexorable and unavoidable feature of COPD natural history? Individual interventional studies may not have enough power to show changes in hospitalization, but if full data-sets were provided that would enable systematic analysis, there might be a chance to show a difference.

We could only find hospitalization data in three of the 14 included studies in a systematic review. AECOPD was reported with a wide spectrum of end points in each trial, such as the following: proportion of subjects with at least one exacerbation for all kind of severities; time to first AECOPD; duration of AECOPD; number of subjects treated with systemic corticosteroids, antibiotics, or both; and percentage of subjects with one or more AECOPD.

This issue seems relevant enough to request reporting AECOPD hospitalizations in absolute figures. Analyses of databases trying to assess drug safety of COPD drugs, as suggested by Rabe, might include drug efficacy, too.

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