Best Current Therapy for Patients with Malignant Pleural Effusion

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A vexing problem for patients and physicians today is malignant pleural effusion. These patients' generally short survivals may be managed with hospice care or chemotherapy and radiation therapy. Palliative options for dyspnea include repeated thoracenteses, placement of an indwelling plastic catheter for drainage at home, and pleurodesis. Little controlled data is available comparing these treatments. Fortunately, in this issue of *Respiration*, Sabur et al. [1] report on quality of life (qol) in 4 Canadian centers after insertion of a tunneled pleural catheter (TPC) left in place either for life or until 'spontaneous' pleurodesis occurred.

This study indicates that patients surviving 14 weeks after TPC placement have improved *mean* qol, dyspnea scores, and patient satisfaction *compared to baseline*. *Median* dyspnea scores, which might have proved complementary, were omitted. However, 45% of patients were deceased at 14 weeks' follow-up. No attempt was made to determine the qol and dyspnea from family members of the 45% who died between 2 and 14 weeks, roughly half the patients. So the qol/dyspnea results are based on the half of the patients with relatively long survival. Other information of interest would be a full accounting of life-time medical events – qol, dyspnea, and otherwise – following TPC, in comparison with control groups of talc

slurry or thoracoscopic talc poudrage pleurodesis. Furthermore, it remains unclear whether spontaneous pleurodesis with TPC prolongs life. In survivors to 14 weeks, the mean time to pleurodesis was 54 days. One co-author's earlier study revealed that those with TPC who had spontaneous pleurodesis lived over 3 times as long as those who did not have pleurodesis [2]. If pleurodesis by itself prolongs life, why not use more rapid pleurodesis techniques, such as talc slurry or thoracoscopic talc poudrage in the best candidates for longer survival?

The report of Sabur et al. [1] complements a recent RCT by Davies et al. [3] (TIME2) from 7 centers in the UK, which found that talc slurry pleurodesis was 'not inferior' to TPC in controlling dyspnea 42 days after randomization [3]. The median length of the initial hospitalization was shorter in the TPC group (<1 day vs. 4 days) (shorter hospitalizations – a median of 3 days – have been reported with thoracoscopic talc poudrage) [4]. There was no significant difference in qol. The study by Davies et al. [3] was not powered to compare survival in the 2 groups and results from the 2 procedures were discordant for complications versus the need for subsequent procedures. These mixed results suggest that the choice of procedure may depend on the specific circumstances of each patient and local capabilities. The randomization process led to half

as many breast cancers and twice as many lung cancers in the talc group. In future studies it may be fruitful to analyze pleural malignancies of different origins separately, since the natural history of, for example, breast metastases, lung cancer, and mesothelioma are quite different.

Recommendations

Ambulatory patients with a malignant pleural effusion should be tapped dry in an outpatient setting with a follow-up appointment in 1–2 weeks. Those patients with limited life expectancy might best be considered for watchful waiting if the severe dyspnea does not immedi-

ately recur. The majority, whose effusion does recur rapidly, may be considered for TBC, talc slurry application, or thorascopic talc poudrage. The last has been shown to be safe and effective [4, 5] and appears slightly more effective than slurry [6], perhaps due to lysing adhesions and freeing up of lung entrapment. The therapeutic choice today depends on local capabilities, the condition of the patient, and the wishes of the patient and family after being informed of the options. Further prospective controlled studies are required to better define qol, survival benefits, relative costs, and relative success with TBC compared to talc slurry, thorascopic talc poudrage, some combination of these, and promising alternative pleurodesic agents.

References

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