Evaluating Pleural Effusion

To the Editor:

I read with interest the paper concerning evaluation of pleural effusion submitted by Bartter and colleagues (CHEST 1994; 106:1209-14). This generally excellent review had few flaws. However, I believe it is necessary to emphasize two points.

First, the authors have the serum-pleural fluid gradient backwards. High gradient values are associated with transudate, low with exudative processes.1

Second, the authors' section on complications is skewed toward the morbid. I believe that the procedure is quite safe. Part of the problem is with the definition of major vs minor complications. Two recent papers have listed pneumothorax as a major complication. Although it can certainly be so, a small pneumothorax, not requiring drainage nor delaying hospital discharge does not seem to be a major complication. Most pneumothoraces in all studies are of this type.2 Another part of the problem is that the paper of Grogan et al3 studied not only complications but also studied a catheter-through-the needle system. This system was associated with increased complications.4,5 Therefore, the statements concerning risk are somewhat magnified.

Otherwise this is a solid paper with much useful information.

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REFERENCES
1 Roth BJ, O'Meara TF, Cragan WH. The Serum-effusion albumin gradient in the evaluation of pleural effusions. Chest 1990; 98:546-49

Does a Positive Brain CT Reflect Brain Metastases?

To the Editor:

As noted by Ferrigno and Buccheri (CHEST 1994; 106:1025-29) in the October 1994 issue of CHEST, there is continuing debate over when to order cranial computed tomography (CT) in the initial staging of non-small cell lung cancer. Most would agree that the absence of neurologic symptoms and signs does not reliably exclude brain metastases.

However, the presence or absence of non-organ specific clinical factors may be important as well. Hooper et al6 showed that brain CT scans were positive in 15.5% of patients with only non-organ specific findings such as weight loss and anemia. CT scans were uniformly negative only in the patient group lacking both organ specific and non-organ specific clinical factors. One wonders how many of Ferrigno and Buccheri’s 16 positive CT scans in the absence of neurologic features would have been discovered had additional scanning been prompted by non-neurologic findings. This is particularly pertinent for the three subjects with otherwise operable carcinomas. These additional data might add credence to Ferrigno and Buccheri’s suggestion that all surgical candidates be scanned, as opposed to the proposal by Hooper et al6 that brain CT scanning can be omitted in patients lacking all “clinical factors.”

Finally, it should be recalled that a positive CT scan cannot be

complicated technically, well tolerated, and quite safe,7 attributes suggesting that thoracentesis is a good “training procedure” for medical students and house staff. This led us to emphasize the complication rates of the procedure using the broader definition. We do, however, realize that a pneumothorax that does not require intervention and does not delay hospital discharge could appropriately be considered a minor complication. For this reason, in our last study of complications of thoracentesis, we first compared our results with prior literature using the definition of “major complications” which included all pneumothoraces, and then we also compared our results with past literature using as a criterion only those complications of thoracentesis that required intervention. We agree that it might be most reasonable simply to define a major complication as one requiring intervention. In our review article, we did not have the space to expand on this issue.

We appreciate the thoughtful comments of Dr. Merrill, and welcome any other critique or comment of our review of thoracentesis.

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