

CORRESPONDENCE

The best treatment for the first episode of primary spontaneous pneumothorax: an unanswered question

To the Editor:

I read with great interest the study by TSCHOPP *et al.* [1]. They compared in a multicentre randomised study two groups of patients with primary spontaneous pneumothorax (PSP), in order to study the recurrence rate, the side-effects (mainly the pain) and the cost of two treatment modalities, thoracoscopic talcage (TT) or pleural drainage (PD). They found that, after 5 yrs of follow-up, 34% of PSP patients treated with PD relapsed, *versus* 5% in the TT group, and that TT is a safe, cost-effective treatment with less morbidity provided there is an efficient control of pain by opioids.

I expected to find an answer to a recurrent and essential question in this manuscript: "do we have to propose TT or simple PD for the first episode of PSP if aspiration has failed?" Unfortunately, this was not the case. Indeed, the authors decided to include all the patients with PSP, whether they presented with a first or a recurrent episode of PSP. As shown in table 2, only 23 and 36% of the patients treated with TT and PD respectively, had a first episode of PSP. We all know, as the authors quoted in their introduction, that there is a "general consensus that some treatment is mandatory with second or recurrent SP". In other words, a TT is advised from the first recurrence. Scarce scientific data, but above all, clinical experience suggests that after a first recurrence of PSP, the incidence of subsequent recurrences increases progressively over time, up to 62% for a second and 83% for a third recurrence [2]. To show that TT as compared to PD is a cost-effective treatment for a majority of patients with recurrent PSP, brings no major information. A subanalysis of the "true" patients (with first episode of PSP) would have given more power to this study.

Another study should be reproduced eventually using patients with a first episode of PSP. It should offer relevant answers in our current practice, and will complete the data of a nonrandomised and nonprospective study performed by SCHRAMMEL *et al.* [3] that was published in the *European Respiratory Journal* in 1996. These authors also examined the cost-effectiveness of PD *versus* TT for PSP in two successive periods. TT was not cheaper than PD except if the costs of the waiting times before TT were subtracted. All kinds of PSP were included. One-third of the patients presented with a recurrent PSP. Guidelines for the treatment of first episode of PSP cannot be easily drawn from these results. Interestingly, only 27% of the patients treated with PD relapsed after a follow-up of 8 yrs, and 19% after 1 yr.

Nevertheless, if such a study is ever considered, some modifications should be introduced in the methodology. I think that a pleural suction should be used in the same way in the pleural drainage group as in the thoracoscopic talcage group. First, TSCHOPP *et al.* [1] decided to use suction after 12 h in the pleural drainage group if the lung failed to re-expand, and immediately in the thoracoscopic talcage group. Secondly, in the thoracoscopic talcage group, why should suction be sustained for ≥ 2 days "or" until air leakage has stopped? It should perhaps be better to write "and until the suction has stopped" or "suction was maintained 24 h or 48 h after air leakage has stopped". Thirdly, a true comparison of

the costs between the two methods in general and, centre by centre in the case of a new multicentre study, should be carried out. An independent reader cannot react otherwise than with greatest precaution when the results about costs in this prospective study concerned only one-third of the population even if the cases were randomly selected. Finally, is there any good reason after thoracoscopic procedure to insert a drain through another hole, *i.e.* the sixth intercostal space in the midaxillary line, when the thoracoscope was previously inserted in the fourth or fifth intercostal space on the same line?

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References

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2. Light RW. Pleural Diseases. 4th Edn. Philadelphia, Lippincott Williams and Wilkins, 2001; pp. 284–319.
3. Schrammel FMNH, Suttedja TG, Braber JCE, van Mourik JC, Postmus PE. Cost-effectiveness of video-assisted thoracoscopic surgery versus conservative treatment for first time or recurrent spontaneous pneumothorax. *Eur Respir J* 1996; 9: 1821–1825.

From the authors:

We would like to thank T. Pieters for his interest in our paper and take the occasion to reply to some of his questions. First, should thoracoscopic talc (TT) poudrage be proposed for the management of a first episode of primary spontaneous pneumothorax (PSP) if a simple treatment such as aspiration has failed? In our study we included all patients with PSP requiring chest-tube drainage. A subanalysis of the 28 patients who presented with a first episode of PSP would most likely show the same results, as there was no difference in any clinical characteristics between a first episode and recurrent PSP. However, it is a good question which might be answered in another study including only patients with a first episode of PSP. We definitely showed in a prospective way, that simple thoracoscopic talc poudrage under local anaesthesia is a safe (there were no complications at all) and cost-effective treatment of PSP requiring chest-tube drainage. Moreover, because of the design of the study, we did not take into account the costs of rehospitalisation for a late recurrence which were, as expected, much higher in the conservative group treated by chest tube alone. This would