Letter to the Editor

Do we know the ideal surgical treatment for primary spontaneous pneumothorax?

We read with interest the article entitled ‘Thoracoscopic parietal pleural argon beam coagulation (ABC) versus pleural abrasion in the treatment of primary spontaneous pneumothorax’ by Bobbio et al. [1], as well as the article entitled ‘Video-assisted thoracoscopic surgery for primary spontaneous pneumothorax: clinicopathological correlation’ by Ayed et al. [2], which both present special interest for different reasons. The authors of the former article compared pleural ABC versus abrasion in the management of the primary spontaneous pneumothorax (PSP) in order to assess safety, efficacy, and recurrences. The goal of both techniques was to achieve obliteration of the pleural space and prevent pneumothorax recurrence. However, we disagree with the comparison of these techniques and we wonder if the pleural ABC or abrasion can be reliably considered adequate thoracic alternatives in the management of PSP, as the apical pleurectomy with apical lung parenchymal excision has been established in the literature as the gold standard of the VATS procedure for PSP [3].

Furthermore, it seems that PSP is not a homogenous entity and based on the Vanderschueren classification we can distinguish four different stages (types) of this disease. Pathophysiologic and mechanisms of PSP are not well known and different results have been published according to the PSP stage. In this context we have to refer to the excellent work of Ayed et al. [2], who evaluated operative findings with histopathological data and concluded that in type I cases simple apical excision of the lung combined to apical pleurectomy are not sufficient and perhaps additional talc poudrage might be indicated. Further thoracic surgical procedures are not rendered too difficult, as Bobbio et al. [1] comment on the talc poudrage and parietal pleurectomy in the discussion of their paper. A significant part of the extrapleural layer remains intact, as the pleurectomy is eliminated to the apical pleura. Concerning to the effect of talc pleurodesis, the recent paper of Doddoli et al. demonstrated that VATS management is safely feasible and efficacious after prior talc pleurodesis and is strongly recommended in recurrent PSP [4].

Another critical point has to do with an interesting hypothesis that has related PSP not necessarily to the visible macroscopically blebs, but also to some other areas of enhanced porosity, which need to be detected with special techniques, as the inhalation of aerosolised fluorescein followed by fluorescein-enhanced autofluorescence thoracoscopy (FEAT) [5]. As Noppen et al. reported FEAT could detect abnormal regions, which appeared completely normal with white light thoracoscopy, and this observation may have therapeutic impact. If such a hypothesis is true, many things in the management of PSP will be reconsidered and a more sophisticated approach will be incorporated in our knowledge in the future. Noppen’s model will potentially interpret the recurrences that occur after blebs’ resection or in cases without localisation of a certain suspicious site, especially in type I (Vanderschueren classification) PSP.

Till then, we must contemplate VATS apical pleurectomy accompanied by apical lung wedge resection as the cornerstone of the treatment.

References


* Corresponding author. Tel.: +30 6945875222; fax: +30 2107224449.
E-mail address: chzisis@otenet.gr.

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