influence pleural inflammation and extrapleural talc dissemination, affecting efficacy of pleurodesis and accounting for side effects, especially ARDS.

Mean particle size among talcs used in several countries ranges from about 10 to 30 μm [2]. Talc particles instilled into the pleural cavity cause local inflammation and can disseminate in extrapleural organs, leading to tissue damage and acute lung injury [3]. Ferrer et al. [4] compared pleurodesis by instillation of talc usually used for human treatment (mean diameter 8.3 μm) and talc with particles of larger size (mean diameter 12 μm). Normal talc elicited greater lung and extrapleural particle spread and more pleural inflammation and thickening than larger talc; however, both talcs were equally effective in obtaining pleurodesis. The authors concluded that, if ARDS is due to talc deposition, it is likely better to use talc with large particles, eliminating particles <10 μm. Maskell et al. [5] compared pleurodesis with ‘mixed talc’ (mean diameter < 15 μm) to pleurodesis with ‘graded talc’ (most particles <10 μm removed). Mixed talc induced more lung and systemic inflammation and worsened gas exchange, thus the use of larger talc would reduce the morbidity of the procedure. Finally, among the talcs used in different countries, the lowest sizes correspond to talcs administrated in United States, where most patients who developed a post-pleurodesis ARDS were reported.

When assessing the particle size, different methods could give different results [2,4,5]: when investigating the granulometry of talc, it should be important to mention the analysis method.

In our study, we used the same talc for both poudrage and slurry procedure, a sterile, asbestos-free, calibrated talc, extracted from a mine in Luzenac (France). Granulometry was assessed by the same method for both preparations: average diameter was 14 μm, with 25% of particles <10 μm in both talcs. Thus, particle size did not represent a variable in our study, and we think that the difference in efficacy between poudrage and slurry remains related to the method of delivery of talc, the former creating an highly homogeneous dispersion of the particles. According to Ferrer et al. [4], the particle diameter of our talc is at low risk for ARDS, a complication that we did not observe.

In 1990s, we began our experience with talc poudrage by using a puffer similar to those used to deliver perfumes. It was effective, but we found the disposable gas propelled atomizer more practical, easier, and faster to use. Moreover, disposable atomizers are easily available on the market and are not expensive.

Throughout the study, we applied a standardized method to prepare and deliver the mixture for talc slurry. Thus, the dispersion of the slurry depended rather on the ability of the patient to change position during the clamping time. We acknowledge that this may be a variable that we did not take into account; however, our group of ‘talc slurry’ patients was to small to further subgrouping.

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Letter to the Editor

Preoperative red sudan administration to locate thoracic duct lesion in videothoracoscopy

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Keywords: Chylothorax; Video-assisted thoracic surgery; Red sudan; Octreotide; Somatostatin

The considerations of Christodoulou et al. [1] and Porzillea et al. [2] concerning the ideal diagnostic and therapeutic approach to chylothorax raise an interesting debate. We would like to contribute with our experience to this discussion.

From October 2003 to November 2006 we observed 13 patients with chylothorax, 8 on the right and 5 on the left side: (a) 2 presented an iatrogenic origin (15%), due to an esophagectomy for carcinoma and a thymectomy for thymoma, treated by thoracotomy; (b) 11 were traumatic (85%), treated by pleural drainage and total parenteral nutrition for 7 days. This procedure had an excellent result in two patients (18%); the average time of hospitalization was 8 ± 1 day. In the other nine patients (82%) the use of 6 μg/kg/24 h of somatostatin by continuous endovenous infusion (four cases) or 100 μg/h of octreotide by subcutaneous injection (five cases) was carried out for a further 7 days. In three somatostatin (33%) and two octreotide (22%) patients recovery was obtained; thoracostomy tube was removed after 15 ± 1 day. In four patients (45%) the clinical patterns (dyspnea, fever, hypovolemia) associated to a persistent loss of chylo >200 ml/day, indicated the need for intervention. Method consisting in administration of 10 ml of red sudan by nasogastric tube and in supradiaphragmatic thoracic duct ligation 1 h later by video-assisted thoracoscopic VATS, with a pleural poudrage (4 g of Luzenac spray talc). Pleural drainage was removed after 5 ± 1 day from intervention; the resolution rate was 100%.
In this letter we ask the authors their opinion on the use of somatostatin and octreotide in conservative treatment and of red sudan in surgical management. Somatostatin and octreotide reduce lymph secretion by a decrease in hepatic venous pressure and splanchic blood flow. Red sudan allows direct intraoperative visualization of the lesion, making the surgical technique easier without applying preoperative lymphangiography or lymphangioscintigraphy. Moreover, we think that VATS is necessary only when conservative therapy fails.

References


The authors of the original paper [1] were invited to reply to this Letter but they did not respond.

Reply to the Letter to the Editor

Reply to Divisi et al.

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Keywords: Chylothorax; Diagnosis; Video-assisted thoracic surgery (VATS)

We welcome the kind comments by Divisi and co-workers [1] regarding our opinion on the role of pre-operative lymphangiography and lymphangioscintigraphy in the management of spontaneous chylothorax (SC) recently published in the Journal [2].

As a matter of fact we have addressed the diagnostic problems related to the SC which are more complex than those encountered in the management of the post-traumatic condition (PTC) as it is in discussion in [1], in fact in SC there is quite always an anatomical defect which is very likely to be its primary cause.

Regarding the intra-operative means to locate a lymph loss into the thorax we think that each surgeon could decide his/her action upon his/her personal experience. In our case we believe that the traditional fatty meal (milk and butter) is effective, still being cheap but of course, do not disregard any other option. Regarding the use of somatostatin analogues our point of view remains that if there is a leakage and this comes from an aberrant anatomy source (as it is often the case in SC) this approach can be really expensive with only partial advantages (and potential disadvantages in terms of delay of the surgical operation) in the overall treatment strategy which still sees surgery as its mainstay.

Our attitude to perform a pre-operative lymphangiography in SC is substantially supported by the fact that the knowledge of any aberrant lymphatic system anomaly could pilot the surgical intervention in order to obtain a definitive, single step, solution to the problem. Furthermore we believe that, in recurrent SC cases, a pre-operative lymphangiographic assessment can easily outline any additional leakage source that can be then correctly managed whereas the operative field may prove difficult to explore due to the first operation.

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Letter to the Editor

Post-mediastinoscopy mortality due to drug-eluting stent thrombosis

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Keywords: Coronary stent; Lung cancer; Thrombosis; Mediastinoscopy

In the current era of percutaneous coronary intervention (PCI), we were interested to read the article by Brichon et al. [1], reporting coronary stent thromboses following lung resection, despite 4 weeks of dual antiplatelet therapy as according to American College of Cardiology/American Heart Association (ACC/AHA) guidelines [2]. It highlights what is set to be an increasing occurrence in thoracic surgical practice. While bare metal intravascular stents have been used for the better part of 20 years, their successor cytotoxic drug eluting stents (DES) are now deployed as the panacea for coronary artery disease. We have experienced a fatal outcome for a 43-year-old male type II diabetic, ex-smoker undergoing cervical mediastinoscopy for investigation of mediastinal lymphadenopathy, due to thrombosis of a DES to the left anterior descending (LAD) artery, deployed 6 months earlier. Primarily as thromboembolic prophylaxis, preoperatively, the patient had received 8-h 5000 IU subcutaneous calcium heparin. However, as control of bleeding in minimal access procedures