postoperative pain and paraesthesia has been reported for the uniportal technique [2].

There are no studies specifically addressing the question of the number of VATS accesses for talc poudrage. Boutin and colleagues [3], in their series of 360 medical thoracoscopies, reported that pain was almost invariably present during the first 24 h after the operation. In one of the largest series (547 patients), both the single port and three-port approaches were used: only 2% of patients developed postoperative pain but specific data were not reported [4]. The only Phase III study comparing talc poudrage and t alc slurry did not address the question [5].

In our study, 58.3% patients (42/72) underwent a single access VATS (group 1A), the remaining had a two-port procedure (group 2A). Our policy was to place a second thoracoport of 7 mm whenever biopsies or pleurolysis were needed; through this access, we introduced the small-bore catheter in every patient. In case of no additional manoeuvres apart from fluid aspiration and talc insufflation, a single 7-mm trocar with a 5-mm thoracoscope was used.

We did not find a significant difference between the two groups about morbidity, incidence of postoperative pain (34% in 1A, 37% in 2A), duration of narcotics administration (beyond 48 h in 22% and 17%, respectively, in 1A and 2A), and length of postoperative hospital stay; operative time was longer for 2A, but this reflects the more complex type of operation and the need to wait for intraoperative frozen examination when diagnosis was not previously established (mean time 27 min, range 20—45 for 1A; mean time 47 min, range 25—75 for 2A; p = 0.034).

In agreement with Margaritora and colleagues, we support the need of a minimal invasive approach in these compromised patients. However, we do not believe that a two-port VATS, using 7-mm trocars, represents a more invasive procedure than the single-access technique. In our experience, pain, morbidity, and recovery were similar and there are no esthetical indications in these patients. We believe that single-access VATS remains the procedure of choice for simple talc instillation, but when endoscopic manoeuvres are needed, a two-port approach may make the procedure easier, faster, and more complete.

Otherwise, we agree with the common opinion that pain and discomfort after talc pleurodesis are basically due to chest drains and to the inflammation caused by talc itself; our policy to place a small-bore catheter to control the pleural fluid reaccumulation, allowing early drain removal and patient recovery, is based on this remark.

References


Letter to the Editor

Size matters in atrial fibrillation surgery

Emmanuel Villà’, Antonio Messina, Marco Cirillo, Giovanni Troise
Cardiac Surgery Unit, Poliambulanza Foundation Hospital, Brescia, Italy

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We read with interest the paper of Kim et al. [1] reporting their experience in Cox-maze III operation and mitral surgery in the setting of rheumatic valve disease. Studying a 10-year period of surgical cases, the authors added important data to the very fast expanding field of atrial fibrillation (AF) treatment, and they are to be commended. Nevertheless, some issues need further discussion.

Although left atrial size was found to be a predictor of AF recurrence at multivariate analysis and mentioned in the abstract, the issue of surgery for atrial reduction is not discussed in the paper. Since the first observations of the link between atrial dilatation and arrhythmia made by Cusnhy and Edmunds and recently mentioned by Fye [2], many authors confirmed this pathophysiological mechanism also in the clinical setting, concluding that the probability to succeed in sinus rhythm restoration is inversely related to atrial size. This is consistent with the Laplace law and it is true for any medical, transcatheter or surgical therapy.

Trying to restore the relationship between structure and function, we adopted the cardiac autotransplantation technique to debulk left and right atrial walls, along with plication of left atrial cuff aimed at reducing also the posterior wall, in case of giant atria with permanent AF and mitral valve disease [3]. Other authors implemented their approach with atrial reduction strategies [4]. We deem that return to electrical normalcy requires low wall stress and, although Kim et al. did not record thromboembolic events, a reduced cavity could diminish the thromboembolic risk. Due to the importance of precise measurement for proper comparison, we think also that a three-dimensional structure such as the atrium needs to be characterized by more diameters or by volume estimate and not only by a single diameter. Moreover, the adoption of the Santa Cruz Score to classify atrial contractility after AF treatment, as previously suggested by Melo, is strongly desirable for result analysis [5].
On the contrary, we appreciate the authors’ discussion on the issue of tricuspid valve role and agree with them that the vicious cycle that links tricuspid valve incompetence and AF needs to be directly addressed more often by correction of tricuspid regurgitation.

However, some considerations in the particular setting of rheumatic valve disease are required because these hearts have a very long history of disease; rheumatism is a disease of the whole heart, and the prevalent disturbance in every series is stenosis. These factors may have produced structural changes that sometimes may result in irreversible scars. It could explain the suboptimal results of AF therapy in rheumatic setting in terms of freedom from recurrences and need of antiarrhythmic drugs. Another problematic issue is the capacity of the sinus node to correctly resume its function after many years of disease, as evidenced by the number of sick sinus syndromes and junctional rhythms observed after this kind of surgery.

Nevertheless, we deem that acute size reduction today is the cornerstone to restore sinus rhythm and favour the maintenance of atrial electro-mechanical function.

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* Corresponding author. Address: Cardiac Surgery Unit, Poliambulanza Foundation Hospital, Via Bissolati 57, 25124 Brescia, Italy. Tel.: +39 030 3518534; fax: +39 030 3515244. E-mail address: emmanuel.villa@volla.fr (E. Villa).
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Reply to the Letter to the Editor

Reply to Villa et al.

Ki-Bong Kim*
Department of Thoracic & Cardiovascular Surgery,
Seoul National University Hospital,
Seoul, Republic of Korea

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We would like to thank Dr Emmanuel Villa [1] for his comment and insight on our manuscript [2]. As we indicated, one of the main findings in our study was that the Cox-Maze III procedure (CM-III) for persistent atrial fibrillation (AF) associated with rheumatic mitral valve (MV) disease demonstrated a progressively decreased rate of freedom from AF during the follow-up period. As previous studies [3–5] have demonstrated that large left atrial (LA) diameter is one of the major predictors for AF recurrence or AF treatment failure, causing a progressively decreased rate of freedom from AF, most surgeons try to reduce the LA size during the maze procedure. In a previous study [6], however, we did not demonstrate the preoperative LA size as a predisposing factor for AF treatment failure. We have reduced the LA size by plication of LA cuff during closure, plication to reduce the posterior LA wall in case of giant LA, and closure of the LA appendage, which might significantly reduce the LA size in patients with large LA. To find factors affecting AF recurrence or AF treatment failure, we studied the postoperative LA size instead of the preoperative LA size [2].

As Dr Emmanuel Villa indicated, there seemed to be a vicious cycle that links tricuspid regurgitation (TR) and AF. Although none of our patients developed more than a mild degree of TR early after surgery, patients with AF treatment failure or late AF recurrence showed a higher incidence of late TR, suggesting that permanent AF may affect the worsening of TR over time or that progression of TR after rheumatic MV surgery predisposed late AF recurrence. Prospective, randomized clinical trials are warranted to further clarify the mechanism of late TR and AF. As indicated in the manuscript, early surgical therapy, LA reduction and correction of TR at time of surgery may increase the long-term success rate after the CM-III for persistent AF associated with rheumatic MV disease.

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* Tel.: +82 2 2072 3482; fax: +82 2 747 5245. E-mail address: kimkb@snu.ac.kr.
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