6-minute walk test was 500 m, with a minimum oxygen saturation of 87%. After confirmation of the progression of the lung disease, the dosage of corticosteroids was increased and azathioprine was added. The lung disease was subsequently seen to stabilize.

Scleroderma is a connective tissue disease of unknown origin and is classified as either systemic or localized, according to whether there is internal organ involvement or not.[1] Localized scleroderma is in turn separated into 4 variants: linear scleroderma, localized morphea, generalized morphea, and morphea *en coup de sabre*.[2] The latter is characterized by linear sclerotic lesions that affect one side of the body, occasionally including the face and the scalp. The skin and underlying tissues are involved. Although the distinction between systemic and localized scleroderma is restricted to the presence or absence of internal organ disease, in some cases organ involvement has been demonstrated in localized scleroderma, though patients were asymptomatic and involvement was mild.[3] There was marked involvement in the case we report, however, and it progressed over time. The literature describes a few cases of extrapulmonary disease secondary to localized scleroderma,[4,5] due to the involvement of muscles and subcutaneous tissue of the chest wall. However, after reviewing the literature, we conclude that this is the first case of interstitial lung involvement in localized scleroderma *en coup de sabre*.

The implication of this case is that we should perform series of additional tests on patients with localized scleroderma (whatever the variant) in order to detect any internal organ disease that might be present–given that, despite normal results on the occasion of the first examination, our patient developed subsequent lung involvement. We should, therefore, be vigilant, taking a more aggressive approach to care to avoid complications like those described in the case we report.

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José María Hernández Pérez,[a,*] and Orlando Acosta Fernández[b]

[a]*Sección de Neumología, Hospital General de La Palma, Santa Cruz de Tenerife, Spain*
[b]*Servicio de Neumología, Hospital Universitario Nuestra Señora de Candelaria, Santa Cruz de Tenerife, Spain*

*Corresponding author.
E-mail address: jmherper@terra.es, jmherper@hotmail.com (J.M. Hernández Pérez).

Comments on "Anesthesia in Thoracic Surgery in Catalonia: Results of a Survey Carried Out in 2003"

Comentarios a propósito del artículo "Actividad anestésica en cirugía torácica en Cataluña. Resultados de una encuesta realizada durante 2003"

To the Editor:

I read with interest the article by Vilà et al[1] entitled "Anesthesia in Thoracic Surgery in Catalonia: Results of a Survey Carried Out in 2003," and I would like to make a few comments from the viewpoint of a thoracic surgeon.

The surgical volume in the aforementioned work is scant, with the result that it is difficult to draw conclusions. The caseload of the study comprises only 42 major pulmonary resections (lobectomies and pneumonectomies). These are the interventions that most accurately represent the volume and quality of a specific group of surgeons, and they have been analyzed in some detail in a benchmarking study carried out by 9 groups of thoracic surgeons.[2] A study published in 2006 by the Bronchogenic Carcinoma Cooperative Group of the Spanish Society of Pulmonology and Thoracic Surgery (SEPAR)[3] analyzed 2994 pulmonary resections performed in 19 thoracic surgery units. Morbidity, mortality, and survival were studied in terms of the number of interventions carried out annually by each unit. The units were divided into 3 groups according to their volume: low volume (≤40 cases per year), medium volume (between 41 and 54 cases per year), and high volume (≥55 cases per year). The authors concluded that the short-term and long-term results were not affected by the number of interventions performed. The findings were interpreted as the result of performing highly standardized procedures and based on very similar criteria in specialized services. These data provide a certain guarantee as to the homogeneous quality of thoracic surgery teams in Spain.

Nevertheless, the beneficial effect of a large surgical volume both for a specific surgeon and for a group of surgeons has been recognized,[4] as has the fact that the procedures are carried out by specialized surgeons.[5] This has been a constant concern for those surgeons, like me, who are members of the National Committee of Thoracic Surgeons, and this concern has been voiced in a new forthcoming Training Program for Thoracic Surgeons that requires a medical resident to perform a considerably larger number of procedures while training.

One of the most serious problems facing thoracic surgery in Spain is the disperse nature of the work. This circumstance is favored by current legislation and by the decentralized way in which the country is governed. The work by Vilà et al[1] mentions 27 different centers for the procedures performed. Clearly, many of these centers are privately run, and we must not forget the volume of work carried out by thoracic surgeons on private patients or by general surgeons who also perform thoracic procedures, especially less complex ones. At present there are 10 thoracic surgery units or services in Catalonia,[6] and 7 of these are accredited to provide training. These are the centers with the greatest and most complex experience in thoracic surgery performed in Catalonia. These data may dispel some of the doubts the authors raise in the discussion section of their study. Nevertheless, I feel that it would be wise to review the accreditation criteria for thoracic surgery units where residents are trained and to audit those that are currently accredited.

Finally, I think that studies analyzing surgical volume–such as that mentioned above–always generate better options for rational resource planning and enable us to optimize results. Therefore, they should be encouraged.

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Jorge Freixinet

Unidad de Cirugía Torácica, Hospital Universitario de Gran Canaria Dr. Negrín, Las Palmas de Gran Canaria, Las Palmas, Spain

E-mail address: jfregil@gobiernodecanarias.org (J. Freixinet).

Authors' Reply to "Comments on 'Anesthesia in Thoracic Surgery in Catalonia. Results of a Survey Carried Out in 2003'"

Respuesta de los autores a "Comentarios a propósito del artículo 'Actividad anestésica en cirugía torácica en Cataluña. Resultados de una encuesta realizada durante 2003'"

To the Editor:

We thank Dr Jorge Freixinet for his letter[1] regarding our article on anesthesia in thoracic surgery in Catalonia,[2] which gives us further opportunity to comment on both our own article and on the article recently published by the Bronchogenic Carcinoma Cooperative Group of the Spanish Society of Pulmonology and Thoracic Surgery (SEPAR),[3] of which Dr Freixinet is a member. We congratulate this group for their research into the results obtained by thoracic surgery units in Spain.

We are of the opinion that the points made by Dr Freixinet do not differ substantially from those made in the discussion section of our article, but are simply different perspectives on the same question, namely, what minimum volume of activity for complex procedures by centers and specialists will ensure the best morbility and mortality results? This question has generated a great deal of medical literature in recent years.[4]

The study performed by ANESCAT (Catalan Society of Anesthesiology, Critical Care, and Pain Therapy) was a broad-based survey conducted to obtain detailed information on anesthesia activity in Catalonia in 2003[5] and aimed ultimately at facilitating anesthesiology planning. Of the 23 136 anesthesias reflected in the survey, 171 referred to thoracic surgery and, of these, 42 (24.6%) referred to lung resection.[5] Extrapolating to Catalonia, therefore, 5000 anesthesias were performed, 1000 of which were associated with lung resection. Thus, anesthesia in thoracic surgery (the specialty with least activity) represented 0.7% of all anesthesias and 0.9% of surgical anesthesias.[5] Although the number is small, the extrapolation to Catalonia can be considered to be reliable, given that the sampling methodology was based on 14 randomly selected days in 2003 and that 100% of all the heath centers practicing anesthesia participated in the survey. Nonetheless, extrapolation to centers implies a wide margin of error, given that the level of activity in some centers is low.

Anesthetists for thoracic surgery, like those for heart surgery, need very special training. Anesthesia as performed in thoracic surgery–which can be considered a subspecialty of anesthesiology–is characterized by complex diseases, highly specialist knowledge of anesthesia techniques, blurred boundaries between anesthesia and surgery, and high perioperative morbility and mortality risks. Outcomes are very much influenced by anesthetist skills in terms of airway access, single-lung ventilation, hemodynamics, analgesia, and postoperative complications. Chest surgeons are very aware of the importance of team work with anesthetists and of mutual trust in resolving intraoperative, surgical, and anesthesia problems. Thus, although thoracic surgery may represent but a small part of the workload of an anesthesiology department, it requires good organization and planning.

The study by the SEPAR Bronchogenic Carcinoma Cooperative Group demonstrated that, for Spain, there were no differences in postoperative morbidity and mortality for 19 thoracic surgery units classified in 3 groups according to the number of lung resections performed.[3] This result appears to contradict findings in other studies and meta-analyses.[4,6] Comparing lung resection with other surgical procedures, it was observed that a center's volume of activity had a greater bearing on mortality than the surgeon's level of activity.[4,6] This is probably due to the fact that although this kind of surgery is very regulated, the high risk of postoperative morbility means that hospital infrastructure must be adequate. Without detracting from the SEPAR study, we need to bear in mind that the 19 thoracic surgery units performed an annual average of 50 lung resections, with 16 units performing 30 or more resections.[3] In accordance with the cited studies, most of the 19 centers could be considered to have had a high volume of activity, and this explains why the study found no difference between centers. Since the study only included 1 low-activity center (with fewer than 20 cases annually[6]), it cannot respond to the question regarding the impact of a center's volume of activity.

Of the 131 centers that participated in the ANESCAT study,[5] 27 centers performed thoracic surgery-related anesthesia, and 14 centers–5 of which were private (data not provided in our article)–performed lung resection. Given the margin of error for our sample, it is very likely that 8 of these 14 centers perform fewer than 20 lung resections annually; of the 13 other centers performing thoracic surgery, we cannot rule out the possibility that they may have performed lung resections, since any center performing fewer than 1 operation a month was possibly not picked up by our survey. As Dr Freixinet has pointed out, in Catalonia the dispersion of centers is explained by the weight of private surgical activity, which is generally performed by the same chest surgeons employed in the