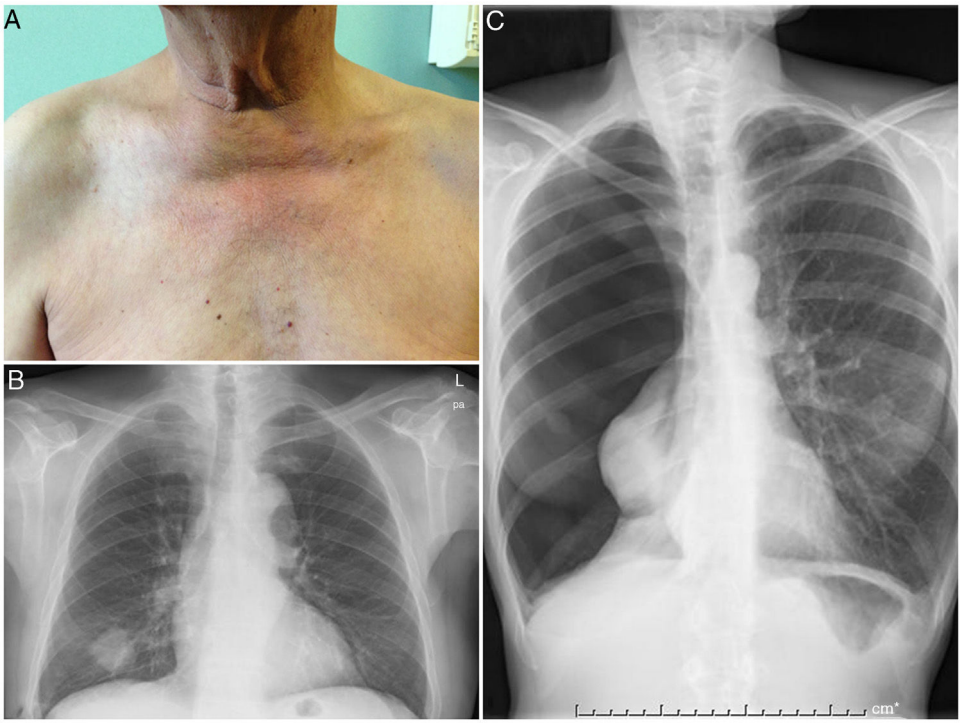

Photo 1. Patients with acute shoulder pain and normal ultrasound scan results. (A) Appearance of the supraclavicular regions of the male patient aged 78 years old, clearly showing the asymmetry of the right supraclavicular triangle in comparison with the left one. (B) Thoracic X-ray image of the same patient, showing a pulmonary mass subsequently identified as epidermoid carcinoma. (C) Posteroanterior X-ray image of a 50-year-old woman with acute shoulder pain, showing a complete pneumothorax of the right hemithorax without mediastinal deviation.

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Response to: A comparative study of doppler ultrasound against temporal artery biopsy in the diagnosis of giant cell arteritis☆

Respuesta a: Estudio comparativo de la ecografía Doppler frente a la biopsia de arteria temporal en el diagnóstico de la arteritis de células gigantes

Dear Editor,

I read with interest the study by González Porto et al. who question the usefulness of ultrasound in the diagnosis of giant cell arteritis (GCA).[1] The article reflects an effort made to improve precision and innovation in the diagnosis of this disease which is to be welcomed, although several inaccuracies would need to be touched on.

In material and methods the experience of the sonographer is not mentioned, although this is vital for evaluation of findings. It should thus be highlighted that the sonographic parameters used are not optimum, because a 10 MHz probe was used whilst in the EULAR[2] recommendations it states that for temporal arteries a probe of at least 15 MHz should be used; the frequency of colour used is very low, 5.7 MHz compared with 7–12 MHz which should be used and the PRF of 1.1 kHz should have been 2–3.5 kHz. This

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would all probably reduce the quality of the results and challenge the final conclusion that the usefulness of the ultrasound was limited.

In the EULAR recommendations on the use of imaging in large cell vasculitis (LCV) it is stated that ultrasound should be performed by a specialist trained in using the equipment, operational procedures and appropriate adjustments. They also comment upon the fact that reliability can improve with specific training and that scientific societies need to promote training programmes, particularly in LCV sonography. I know that the Spanish Rheumatology Society had a training programme for implementation of these recommendations during the first quarter of 2019 and I imagine that this initiative will also be adopted by other scientific societies.

However, I wish to offer my thanks and underline the authors' interest in bringing this technique to their patients. Also to encourage them to continue, in the secure knowledge that it will be useful for them. This is the path we began in 2004 and our results then were only 15% higher than those of the authors, with sensitivities and specificities of approximately 70%. Since then we periodically review our results comparing the diagnostic classification in keeping with the biopsy, ACR classification criteria and ultrasound criteria. This, together with improvement in the quality of the equipment, have led to a sensitivity of 91.6% and specificity of 95.83%[3] in our centre.

I would finally like to point out that the debate on whether to use ultrasound or biopsy in GCA diagnosis is coming to an end. EULAR recommendations conclude that both are valid and their use depends on their availability and the training practised in each centre.[2] In the next GCA ACR/EULAR classification criteria, presented in the last ACR 2018 Congress, ultrasound appears to be of the same value (5 points) as biopsy, with 6 points being the number required to confirm classification after fulfilling entry criteria.

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Reply☆

Respuesta

Dear Editor,

We read Dr. de Miguel's response to our work attentively, and we would like to thank him for his remarks, and comment on certain question to clarify the conclusions of the same.

We share the aim of improving the care of patients with a strong suspicion of giant cell arteritis. In our case, motivated by the large number of temporal artery biopsy requests received by the plastic surgery department in our hospital, and to improve our professional competency, we decided to undertake a prospective comparative study to analyse the sensitivity and specificity of Doppler ultrasound scan vs biopsy.[1] For this all of the patients were included for whom a temporal artery biopsy was requested due to the suspicion of vasculitis from February 2015 to July 2016.

The ultrasound scan studies were performed by a professional in the rheumatology department who had been trained in the technique, and we made maximum use of the resources that were available to us when we commenced the study. At the time, the available papers referred to equipment with transducers of at least 8 mHz to 10 mHz,[2,3] so that we used the departmental ultrasound scanner (Mindray® Z6 with a lineal 7L4P transducer). We also adjusted the colour frequency parameters and PRF to achieve the best quality image.

The recently published EULAR recommendations on the use of imaging tests in large vessel vasculitis[4] show the parameters and specific equipment which achieve higher sensitivity and specificity. These recommendations and the work of the Ultrasound School of the Spanish Society of Rheumatology will be of great help in standardising the methodology which should be used when researching giant cell arteritis and improving its results.

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