



## Editorial

# Patient experiences with ultrasound: A long way to go<sup>☆</sup>



## Experiencias de los pacientes mediante el uso del ultrasonido: un largo camino por recorrer

It is well known that musculoskeletal and joint ultrasound has demonstrated multiple advantages and benefits for the diagnosis, follow-up, prognosis, and treatment of rheumatoid arthritis (RA). The World Health Organization (WHO) has recognized its importance—along with conventional radiology—as one of the most effective imaging modalities to improve the quality of medical care worldwide, particularly in developing regions such as Latin America.<sup>1</sup>

Despite these important advances, research on the impact of ultrasound on the quality of health care, as well as its perception and usefulness among patients, is still very scarce in the current clinical literature. For this reason, the work of Luis Javier Cajas Santana, Rafael Barón and Carlos A. Guillén-Astete, entitled: “Impact of ultrasound on the perception of health quality in adult patients with rheumatoid arthritis”,<sup>2</sup> recently published in the Colombian Journal of Rheumatology, is welcome.

Through an observational, descriptive, cross-sectional study, the authors administered the SERVQHOS questionnaire to determine satisfaction with the perceived quality of health care in a group of patients with RA who underwent musculoskeletal ultrasound during their consultation, compared to a control group. The results revealed that the majority of patients considered ultrasound as a useful tool during consultation (93%), which generates greater confidence in the treatments and in the physician (93%). The authors concluded that its use improved the indexes of satisfaction with health care, as well as the perception of medical criteria and treatments.

The improvement of patient experiences with the use of ultrasound has been evaluated by other studies. For Kumar et al.,<sup>3</sup> for example, the use of musculoskeletal ultrasound for the visualization of the inflamed joints in real time can help

improve the understanding of the disease and the patient's adherence to the disease modifying anti-rheumatic drugs (DMARDs). For these authors, in addition to the incorporation of visual representations of the process of the disease, the discussion of ultrasound parameters and better explanations in the consultation about the consequences of a poor control of RA can be useful to improve the understanding by the patients about the need for long-term therapy and better therapeutic adherence.

Another qualitative study on the findings of the activity of medical practices in the definition of the progression of rheumatoid arthritis by Doppler ultrasound in clinical practice (DEDUCE), proposed that it is feasible to incorporate Doppler ultrasound into routine clinical practice to measure RA activity. Therefore, rheumatologists are encouraged to use and expand its clinical application, as it can improve the understanding by the patients of their disease status and the importance of medication adherence.<sup>4</sup>

Since the adherence of the patient with RA to medication is a complex phenomenon, it may be stimulating that an economic and simple intervention, such as an ultrasound session with a rheumatologist, improves the attitudes of the patients towards their treatment. This suggests the need for further studies, with a longer follow-up. In this regard, Joplin<sup>5</sup> found that showing patients real-time ultrasonographic images of their swollen joints resulted in a more favorable cost-benefit analysis, with an increased belief by the patients in the need for medications, compared with the concern about their disadvantages.

In another published study, Naranjo<sup>6</sup> found that the routine use of musculoskeletal ultrasound at the level of the hand and the shoulder in rheumatologic practice—compared to traditional care—led to improvement in the care, reducing the number of additional tests and medical visits, with cost savings (approximately 50%) in the group with musculoskeletal ultrasound, compared with the group with traditional care.

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Likewise, Wheeler,<sup>7</sup> in a pilot study conducted in a sports medicine clinic, assessed the patients' perceived benefit in relation to the use of ultrasound. 96% of the patients who responded to a survey reported greater tranquility after ultrasound, while 96% were able to manage their problem better. In general, 64% rated the clinical diagnostic ultrasound as of very high value and other 32% considered it of high value.

In an area other than rheumatology, encouraging findings are also observed. Vollgraff et al.,<sup>8</sup> for example, carried out a qualitative study using semi-structured interviews applied in the outpatient service of a department of gynecology and obstetrics in an academic hospital in Amsterdam. In that study, the majority of women reported that frequent ultrasound evaluations were a source of support that provided them comfort and a sense of security for their pregnancies. In this context, ultrasound has been considered a "delicate" moment, in which women clearly express their willingness to observe frequently the monitor to calm down.<sup>9</sup>

In another mixed-methods study, which included questionnaires distributed to women in a district referral hospital and in three primary healthcare centers in Uganda, Isabirye<sup>10</sup> found that obstetric ultrasound in the point of labor triage was useful in contexts of inadequate prenatal care. The implementation of ultrasound in healthcare centers increased patient satisfaction and their recommendation ratings.

Although the findings commented are certainly hopeful, the evidence on the improvement of patient experiences and the perception of the use of ultrasound in RA is not yet significant and are partially documented in the literature.<sup>11</sup> Two controlled clinical trials published five years ago (TaSER and ARTIC)<sup>12,13</sup> showed that a treatment strategy based on ultrasonographic evaluation (according to current recommendations) did not lead to a better clinical outcome, compared to a conventional Treat to Target approach. This suggests that the systematic use of ultrasound in the follow-up of patients with RA would not be justified.<sup>14</sup>

In any case, all the findings discussed, including those published by Cajas, Barón and Guillén-Astete, agree on the need for a greater number of clinical assays that evaluate the clinical application of ultrasound, as well as its impact on the quality perceived and the outcomes of the patients.

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