Toward a new auscultation: The importance of POCUS in internal medicine

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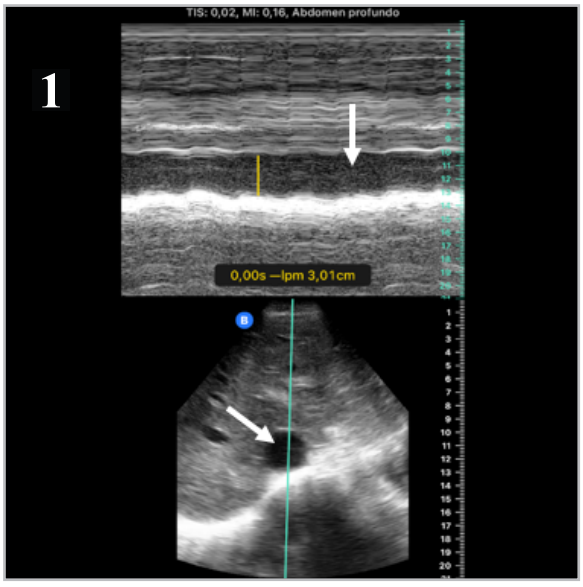

Figure 1. *Abdominal ultrasound showing a dilated inferior vena cava with no respiratory variation.*

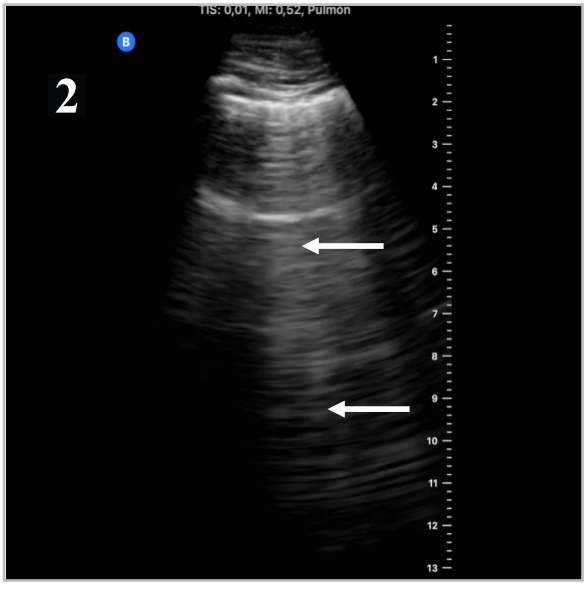

Figure 2. *Lung ultrasound (LUS) image with a symmetrical B pattern and a gravitational gradient.*

Bedside ultrasound, also known as point-of-care ultrasound (POCUS), is defined as ultrasound performed by a physician at the patient's bedside. It has now become one of the most frequently used diagnostic strategies for assessing and managing patients in the emergency room, representing an essential pillar as a complement to the physical exam. This is due to its rapid application, reproducibility, acceptability for the examinee and low cost, and its use is widespread in emergency rooms and intensive care units.

In limited settings at a national level, bedside ultrasound has managed to be established in clinical practice outside of critical care. One example of this is illustrated in the images provided by our nephrology service (all from the same case), in which a foray has been made into the use of POCUS, especially to evaluate patients' hydration status with the application of protocols such as venous excess ultrasound (VExUS),

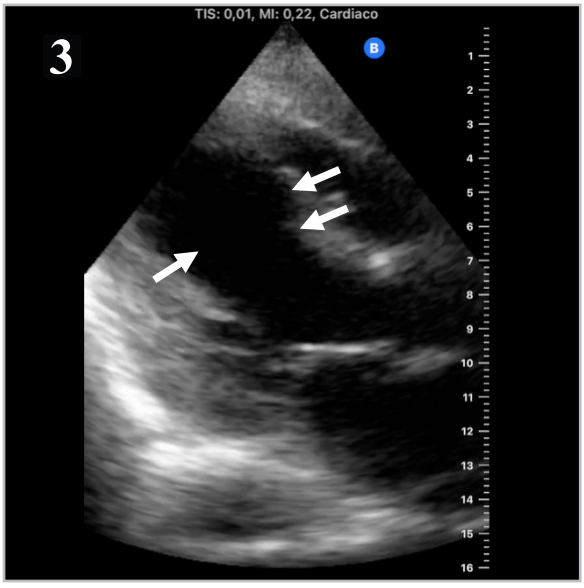

Figure 3. *Parasternal long axis view showing left ventricular dilation as an indirect sign of increased pressure in the heart chambers.*

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which helps determine venous congestion (Figure 1). This technology helps find diseases like pulmonary edema on lung ultrasound (LUS) (Figure 2), and even shows changes in the heart like ventricular dilation (Figure 3), which together point to hypervolemia, probably of cardiac origin. It is notable how this accurate diagnosis was made in just a few minutes, right at the patient's bedside. Likewise, ultrasound has been used to guide different procedures, from catheter insertion to paracentesis.

In the field of general internal medicine, POCUS is a practice which usually plays a secondary role in most training programs. While there is a growing interest in learning about it, it has not been standardized within residency curricula (1). However, as part of our training as physicians and, even more, as internists, it has been stressed that we must conduct a complete patient assessment using appropriate inspection, palpation and percussion as the most rudimentary diagnostic methods. The French physician René Laënnec (2) added stethoscope auscultation to these methods 207 years ago, completely changing the way of seeing and practicing medicine. The purpose of this short presentation is to highlight the need to include POCUS in our clinical practice arsenal, use it has a routine method of examining patients, take it as our spearhead in the differential diagnosis of diseases, and reinforce the necessary training in the field of ultrasonography in internal medicine programs in Colombia, in order to once more revolutionize the art of medicine, as occurred a little more than 200 years ago, with the introduction of a new paradigm to make "ultrasounding" the new "auscultation."

References

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