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LETTERS TO THE EDITOR

Focused cardiac ultrasound: is there room for intraoperative use?



US cardíaca focada: há espaço para seu uso no intraoperatório?

Dear Editor,

The use of ultrasound in anesthetic practice is already well established in regional blockades,¹ for venous access,² and in the perioperative period of heart surgeries through transesophageal echocardiography.³

Recently, the point-of-care ultrasound (POCUS) has expanded dramatically in the areas of intensive care, surgery and emergency medicine and it has been confirmed that its use in perioperative medicine has a much broader potential than that used by our specialty.

Specifically, perioperative ultrasound is well established in the following fields: (1) cardiac; (2) pulmonary; (3) hemodynamic evaluation; (4) abdominal; (5) vascular access; (6) airway; and (7) intracranial pressure evaluation.⁴

Focused cardiac ultrasound is defined as the use of US at the bedside in order to evaluate the unstable patient and, within a specific list of diagnoses, to individualize clinical treatment for a particular situation based on ultrasound findings and with the use of binary and qualitative questions (yes/no – much/little).⁵

It is important, however, to emphasize its difference when compared to formal echocardiographic examination.

The single purpose of focused cardiac ultrasound is to give answer to qualitative questions, being used as a complement to the physical examination in a short time and with a defined objective of evaluating the cause of clinical instability based on a specific list of diagnoses (Table 1), and its intraoperative use by the anesthesiologist is related to lower rates of complications and mortality in high-risk patients.⁶ On the other hand, the formal echocardiographic examination, however abridged it may be, is dependent on an operator trained, enabled, and certified in the acquisition, analysis, and interpretation of the images obtained, in addition to being often used in different clinical situations besides those found in the perioperative period⁷ (Table 2).

Table 1 Indications for focused cardiac US.

Evaluation of hemodynamic instability
Evaluation of PCR causes
Evaluation of patients at risk for cardiac complications

Table 2 Differences between focused cardiac US and echocardiographic examination.

Formal echocardiography

Training and qualification in the acquisition and interpretation of images
Advanced knowledge in the use of US technology

Focused cardiac US

Specific and limited objective
Basic knowledge on the use of US and its perioperative application

The literature shows that its management is quickly learned and easily acquired,⁸ but it needs to be continually practiced.⁹ The question that now arises is how to incorporate this skill in our field if there is no formal model of anesthesiologist training, capacitation, and certification, whether during residency or already professionally active.⁸

Ideally, POCUS training should be done in the same way as those used for cardiovascular anesthesiologist training in transesophageal perioperative echocardiography,⁹ based on a robust program composed of theoretical classes, training in simulators and living models.

It is time for the anesthesiologist to explore and further incorporate this ability with the use of ultrasound and add it to those already mastered (peripheral blocks, venous accesses) in order to ally the use of this technology to better care for patients in general and, particularly, for severely ill patients.

Conflicts of interest

The author declares no conflicts of interest.

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Awake axillary giant lipoma excision under serratus plane block



Excisão de lipoma axilar gigante em paciente acordado sob bloqueio do plano serrátil

Dear Editor,

We read the article “Axillary local anesthetic spread after the thoracic interfascial ultrasound block – a cadaveric and radiological evaluation” written by Torre et al.¹ with interest. The authors have reported cadaveric and radiological evaluation of axillary fossa with ultrasound-guided. Thanks to the authors for conducting such a great study, which is designed excellent and well documented. This plane block may be highly effective in isolated lesions of the axillary region. But we want to report our experience successful case of giant lipoma excision on axillary region with serratus

plane block (SPB) for surgical anesthesia. Interfascial plane blocks are novel regional anesthesia techniques. One such block is the SPB which has been shown to be effective in several surgical procedures, particularly in thoracic and axillary surgery for acute postoperative pain or chronic pain management as a part of multimodal analgesia.^{2,3} However, the use of surgical anesthesia with SPB is limited.

A written consent form was obtained from the patients before procedure. Case was an 18 year-old man, who underwent giant lipoma excision (23 cm × 10 cm × 5 cm) on the axillary region (Fig. 1A and B). The latissimus dorsi and the serratus muscles were visualized at the level of 4th and 5th ribs on the posterior-axillary line. With the in-plane technique, a 100 mm sonovisible nerve block needle was advanced between the latissimus dorsi and the serratus muscles planes in a caudal to the cranial direction. Two mL saline injection was made to confirm the position of the needle, and 15 mL 0.5% bupivacaine and 15 mL 2% lidocaine injection



Figure 1 (A) Patient image before surgery. (B) Patient with giant axillary lipoma during surgery. (C) Ultrasound image of serratus plane block.