An example of the contribution of bedside ultrasound in the hands of the emergency physician

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Brief clinical history:

Bedside ultrasound (BU) is being used with increasing frequency by emergency physicians as goal-directed examinations meant to answer specific questions. A 43-year-old woman with no personal history of interest, was admitted to the emergency department for due to swelling on the inner side of the right thigh about 4 to 5 cm from the longitudinal axis, labeled by her *general practitioner* and by the traumatologist as "lipoma".

Misleading elements:

We present the case of a patient who goes to the emergency department for a mass in the thigh, and thanks to POCUS, an early diagnosis of lymphoma is made. We used a Sonosite M-Turbo, with linear probe HFL38x/13-6 MHz.

Helpful details:

We performed a BU observing a mass of about 4x3x2 cms, heterogeneous, with well-defined edges and very vascularized. Upon suspicion of malignancy, she was referred to traumatologist's consultation for exeresis of the mass in a few days. The pathological anatomy showed a diffuse large B cell lymphoma, initiating early chemotherapy. The evolution has been good. Currently, the patient is asymptomatic, in checkups by hematology, fully incorporated into her family and work life.

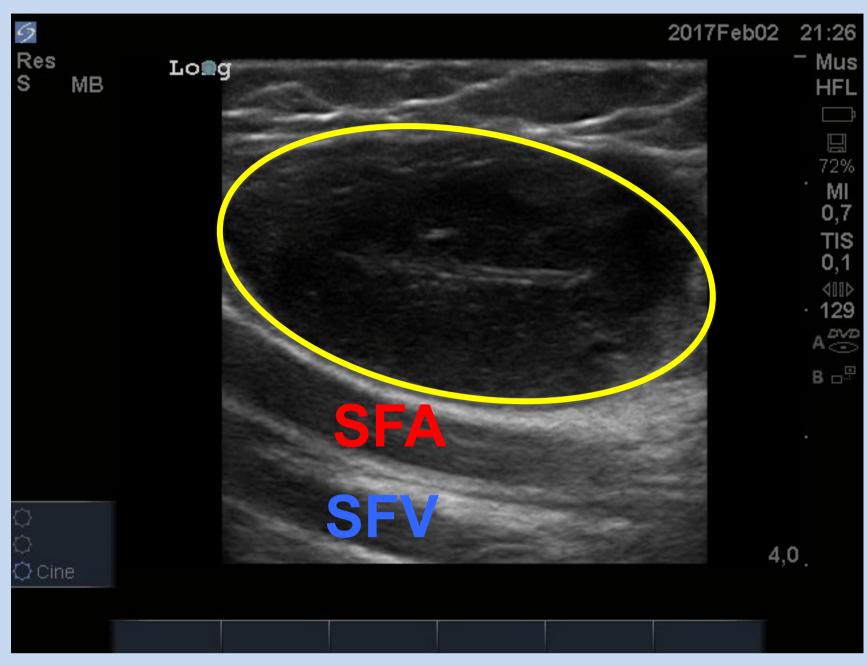


Figure 1: Longitudinal view of the tumor (yellow circle), where we can observe its intimate relationship with the superficial femoral artery (SFA) and the superficial femoral vein (SFV).



Figure 2: Longitudinal view of the tumor, in which we can verify that it is a richly vascularized mass, thanks to the application of color Doppler.

Differential and actual diagnosis:

The differential diagnosis of classic of Hodgking Lymphoma includes nodular lymphocyte predominant Hodgking Lymphoma that and varieties of non-Hodgking Lymphoma that may have similar clinical presentations or morphology.

Educational and/or clinical relevance:

BU allows to associate the clinical and ultrasound information in the same hands, with the increase of the diagnostic efficiency that derives from it. We know that the delay in the diagnosis-treatment of urgent pathologies negatively influences the patient's prognosis. In recent years, the increase in the use of BU together with the data provided by the clinical history makes it easier for emergency physicians (EP) to provide their care. The competencies of EP in point-of-care ultrasound (POCUS) have been debated for decades. The current scientific evidence supports the use of the POCUS in a resounding way, due to its speed and safety for the patient, facilitating an early diagnosis of potentially serious pathologies. In turn, incorporating ultrasound in emergency departments decreases overall care times, since EP is more effective and efficient in the management of "time-dependent" emergencies, providing greater clinical safety to the patient. Therefore, the POCUS represents an extraordinary advance for the evaluation of patients in the emergency department, with training in this technique being of paramount importance. Its use and dissemination must be paramount, since it is a first-class costeffective and quality measure.