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ULTRASOUND A COMPLEMENT FOR ELECTRODIAGNOSTIC STUDIES OF LATERAL FEMORAL CUTANEOUS NEUROPATHY

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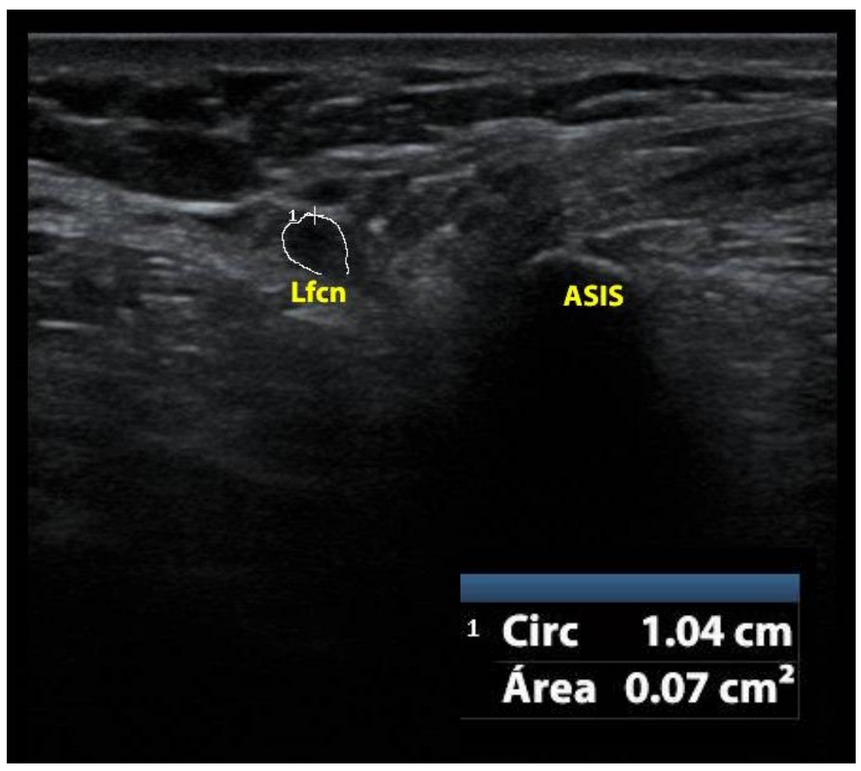
INTRODUCTION

Due to anatomic variability it has been difficult to accurately evaluate the lateral femoral cutaneous nerve (LFCN) with somatosensory evoked potential (SSEP) studies or nerve conduction velocity. Ultrasound can be used for proper identification of nerve anatomy and sites of compression and to guide diagnostic and therapeutic procedures.

CASE DESCRIPTION

An 86-year-old male presented with hypoesthesia on the lateral side of the left thigh. He had a history of deep venous thrombosis on the left leg and aortofemoral bypass on the left thigh 3 years prior. He was sent to our laboratory for evaluation with SSEPs of the LFCN. SSEP studies showed normal latency, sensory conduction velocity, and amplitude on the right thigh and no response of the left thigh with conventional technique. Additionally, we conducted an ultrasonographic evaluation of the LFCN, which documented a comparative increase of the cross-sectional area at the anterior superior iliac spine on the left thigh (7 mm2 versus 3 mm2), showing anatomic changes described in meralgia

Trial	P37 (ms)	PF (ms)	P37 – N45 (µV)
Norm	< 43.5		
Trial - R	33.0	0.0	1.19



DISCUSSIONS

The LFCN may be difficult to assess due to anatomic variability making EDX tests unreliable in many cases, especially in obese and elderly patients. This case exemplify imagenological confirmation of entrapment neuropathy of the LFCN in a patient with absent responses in EDX studies. Ultrasonography is a low cost, reliable and accesible tool that can be used during everyday physiaty practice. Standarized exploration protocols allows accurate nerve evaluation providing structural information that can be used as a complementary tool for assessment of patients with meralgia paresthetica or other entranpment neuropathies and as guidance for therapeutic procedures.

CONCLUSIONS

The LFCN may be difficult to assess due to anatomic variability making EDX tests often unreliable, especially in obese and elderly patients. Ultrasonography provides structural information that can be used as a complementary tool for assessment of patients with meralgia paresthetica

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