



Universidad Nacional de Colombia
Centro de Investigación en Fisiatría y Electrodiagnóstico - CIFEL

**EXTRACORPOREAL SHOCK WAVE THERAPY AS A NON-SURGICAL ALTERNATIVE FOR
CARPAL TUNNEL SYNDROME**

LUISA FERNANDA CASTAÑO-HERRERA, MD - JORGE ARTURO DÍAZ-RUIZ, MD

INTRODUCTION

Recently extracorporeal shock wave therapy has been postulated for the treatment of carpal tunnel syndrome as an effective, non-invasive, and with few adverse effects.

CASE PRESENTATION

A 49-year-old woman with a 3-year history of moderate bilateral carpal tunnel syndrome, with no improvement with conventional measures and with criteria for surgical management. However, due to the patient's refusal, a conservative management was proposed, with a session of radial shock wave therapy of continuous frequency and intensity of 4 Bar, 15 Hz frequency, 5000 shocks. 6 months after the intervention, recovery in the neurophysiological parameters is documented bilaterally, but clinically and functionally there was only complete improvement in the left hand, registering worsening in the right hand, which required surgical release with good results. Currently the patient is asymptomatic in both hands.

Table 1. Results of nerve conduction studies at baseline and 6 months after treatment

		Baseline	6 months after
Right	Sensory (2° digit)	PSDL (ms)	5,6
		Amp (µV)	27,1
	Motor (APB)	LDM-inicio (ms)	5,7
		Amp (mV)	4,6
Left	Sensory (2° digit)	LDS-pico (ms)	4,8
		Amp (µV)	33
	Motor (APB)	LDM-inicio (ms)	4,5
		Amp (mV)	9,4

APB: Abductor pollicis brevis; PSDL: Peak sensory distal latency (ms); Amp: amplitude sensory nerve action potential (µV); DML: distal motor latency (ms); Amp: amplitude of compound muscle action potential (mV)

Table 2. Functional evaluation at baseline and 6 months after treatment

		Baseline	6 months after
HiOb	Right	4	4
	Left	2	0
VAE	Right	6	9
	Left	4	2
Quick DASH		37	53

HiOb: Historical-Objective Giannini Scale; VAE: Visual Analog Scale; Quick DASH: shoulder-elbow-hand disability quick questionnaire

CONCLUSION

Treatment with radial shock waves constitutes an effective alternative for the conservative management of mild to moderate carpal tunnel syndrome, it has good tolerance in patients, guaranteeing adherence to the intervention.

Contact
jadiazru@unal.edu.co
lucastanoh@unal.edu.co

