

ULNAR NEUROPATHY AT THE WRIST AND RICHE - CANNIEU ANASTOMOSIS

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PATIENT INFORMATION AND CLINICAL FINDINGS

A 46-year-old woman complains of 5 days of weakness in her left hand, without numbness or tingling. Weakness occurred after riding a bike for several hours, without direct trauma. She has been having trouble grasping small objects. Physical examination shows left first dorsal interosseous muscle (FDI) atrophy and a positive Froment's sign. Sensory function is preserved.

Electrophysiological studies were performed 20 days after the onset of symptoms. Ulnar nerve motor conduction, to the FDI and second palmar interosseous muscle, showed low amplitude, and prolonged latency to the FDI. The ulnar sensory nerve conduction was normal. There was no evidence of ulnar neuropathy at the elbow. Sensory and motor median nerve conduction studies were normal. Needle electromyography showed signs of denervation and reinnervation in the left FDI muscle, but also reinnervation in the abductor pollicis brevis (APB) muscle. Magnetic resonance imaging (MRI) of the wrist revealed a cystic ganglion, between the pyramidal and pisiform bones.

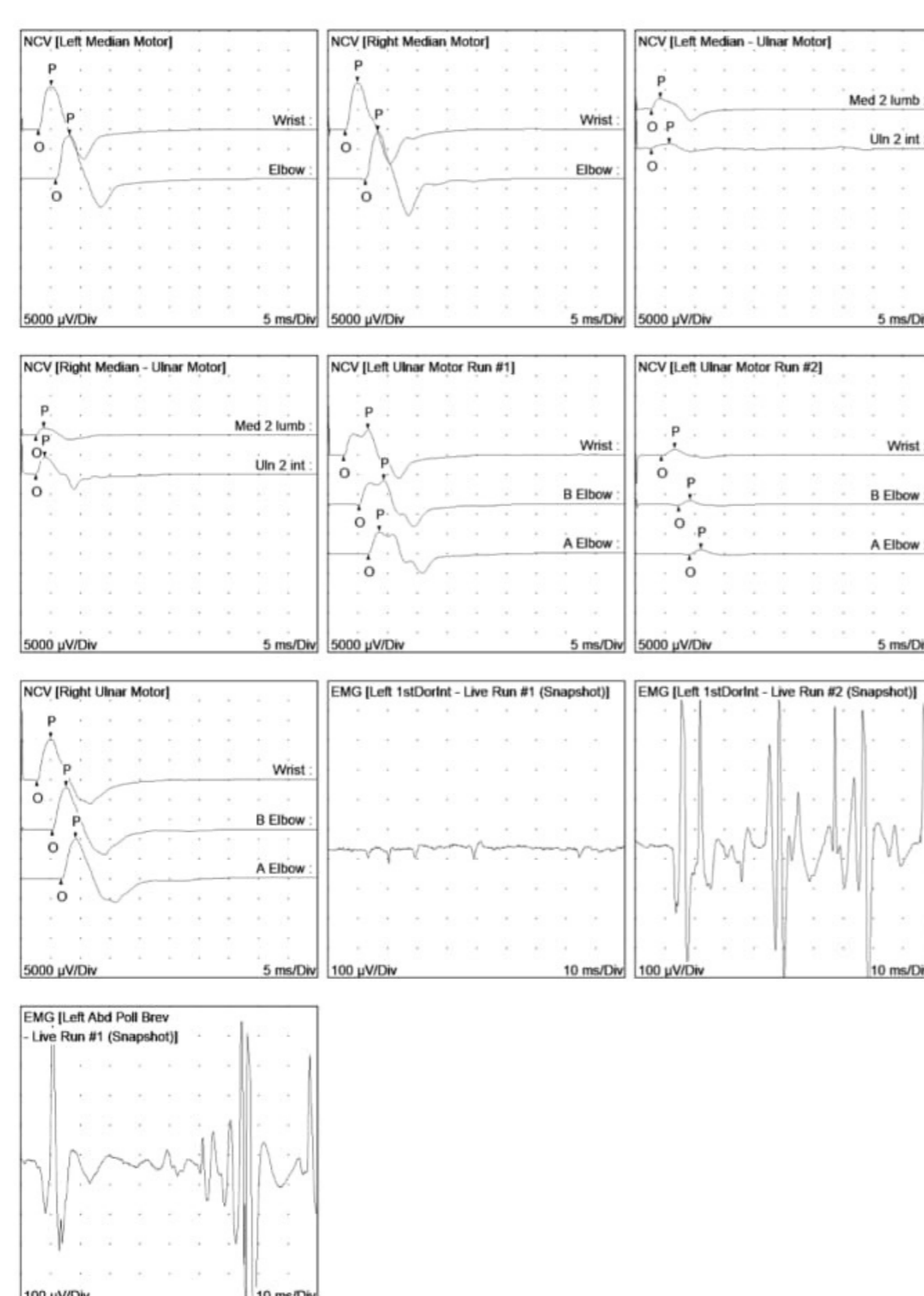


Figure 1. chronic axonal ulnar neuropathy at the wrist (Guyon's canal), predominantly affecting the deep palmar motor branch and anomalous ulnar - median motor anastomosis at the palm (Riche - Cannieu anastomoses).

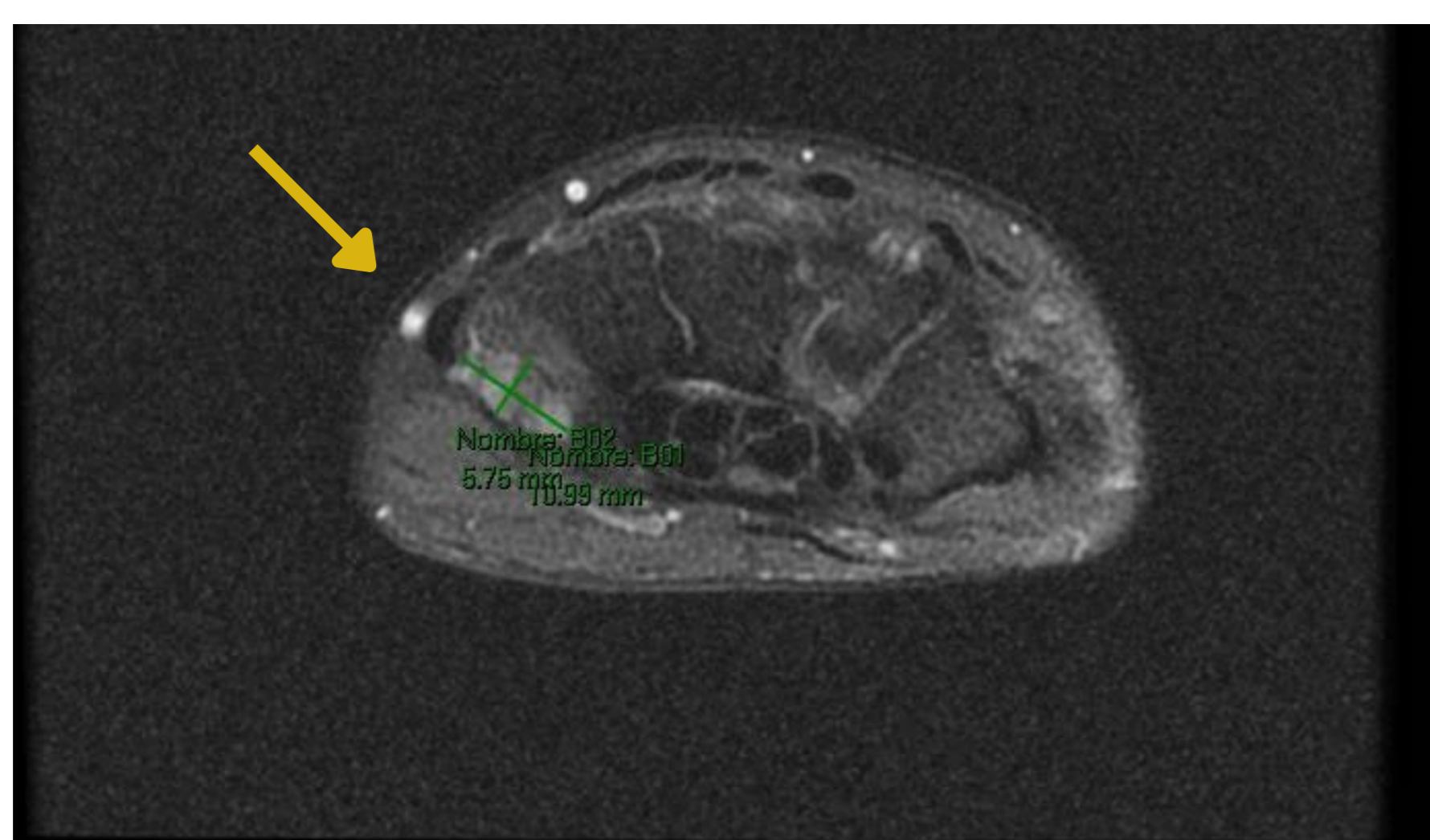


Figure 2. cystic ganglion, between the pyramidal and pisiform bones.

INTRODUCTION

Anastomoses between nerves in the upper limb are not uncommon. Pathologies involving these nerves and their anatomical variations can be confounding factors, for clinicians and the electromyographers.

DISCUSSION AND CONCLUSIONS

Findings suggested chronic axonal ulnar neuropathy at the wrist (Guyon's canal), predominantly affecting the deep palmar motor branch and anomalous ulnar - median motor anastomosis at the palm (Riche - Cannieu anastomoses). It is important to consider this anomalous innervation to avoid misdiagnosis and to do proper management.

