



We report the case of a 51-year-old female who experienced a sharp, painful, burning sensation down her arm at the time of needle insertion into her antecubital fossa during routine venipuncture” Oven and Johnson (2017).

Extract:

We report the case of a 51-year-old female who experienced a sharp, painful, burning sensation down her arm at the time of needle insertion into her antecubital fossa during routine venipuncture. She immediately complained of numbness, tingling, and weakness of her right hand. On physical examination, there was evidence of multiple puncture sites at the right antecubital fossa.

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All compartments of the hand and forearm were soft and nontender. There was no evidence of hematoma, ecchymosis, or erythema. She exhibited weakness in extension of the right wrist and digits. There was decreased sensation to pin prick at the dorsal first web space and over the dorsal thumb. Multiple imaging studies were obtained by the primary service, including an X-ray, venous duplex, and a computed tomography scan. All studies failed to reveal evidence of an acute injury. After 3 days of no improvement with conservative management, nerve conduction studies were performed. Sensory study of the right radial nerve was within normal limits. The distal motor latency and nerve conduction velocity of the right radial nerve was normal but showed significantly reduced amplitude. Electromyography (EMG) showed evidence of increased insertional activity without evidence of denervation activities in the right extensor indicis (EI), extensor digitorum communis (EDC), and brachioradialis (BR). Motor unit recruitment was reduced in the right EDC and absent in the right EI. These findings confirmed the diagnosis of incomplete right radial nerve injury with possible neurapraxia versus axonotmesis. There was no evidence of denervation or axonal injury. The patient was instructed to obtain repeat studies in 4 to 6 weeks and reassured that full recovery was anticipated. Strengthening and desensitization exercises were performed

daily, and a mild improvement in right wrist extension was noted at the time of discharge 10 days after her initial nerve injury.

Reference:

Oven, S.D. and Johnson, J.D. (2017) Radial Nerve Injury after Venipuncture. *Journal of Hand and Microsurgery*. 09(01), p.043-044.

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