

Acute ulnar nerve compression - Thinking outside the box

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INTRODUCTION:

Guyon canal compression is a peripheral ulnar neuropathy that involves injury to the distal portion of the ulnar nerve as it travels through a narrow anatomic corridor at the wrist. There are a few causes of Guyon canal compression which includes ganglion cyst, lipoma, repetitive trauma and Hook of Hamate fracture and dislocation. Guyon canal compression can be divided into 3 zones.

REPORT:

A 37 years old women presented with history of alleged fall. Patient initially as soft tissue injury and was put on volar slab. Subsequently 2 days later patient noticed clawing of the ring and little finger and decided to seek treatment again. On examination, patient had clawing over the left ring and little finger, There was also reduced sensation over the ulnar side of ring and little finger but sensation over the dorsal aspect of the wrist was intact. Xray noted fracture over Hamate and dislocation of the 4th and 5th carpometacarpal joint while Ct scan showed comminuted fracture over Hamate.

Patient then proceeded with ulnar nerve exploration , Guyon canal decompression and open reduction and k- wiring of Hamate and 4th carpometacarpal joint. Intra operatively noted that huge haematoma was present proximal to the bifurcation of ulnar nerve. Guyon Canal was released and decompression was done. During subsequent follow ups, the clawing of the fingers was resolved and sensation has restored.

INTRA – OPERATIVE FINDINGS



Haematoma compressing ulnar nerve proximal to the bifurcation



Post Decompression of ulnar nerve

CONCLUSION

Hook of Hamate fractures only makes up 2% of carpal bone fractures and Guyon canal compression in Hook of Hamate fractures are not common but it is mandatory to examine and anticipate for ulnar nerve injury

REFERENCES:

1. Guyon Canal Anatomy and Ulnar Nerve Arborization Variations: A Cadaveric Anatomic Study by F Ferreira, R Silva in carpalpress.org
2. Injury to deep motor branch of ulnar nerve during hook of hamate excision by Michael Frederickson in Proquest