

A Single Clinical Sign To Test For Functioning Of All 3 Nerves Of The Hand

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Abstract

There are various signs and tests used in routine practice when examining nerve function of the hand. There are specific tests for detecting nerve weakness¹ (motor function) for each of the three nerves of the hand i.e. Radial, Median and Ulnar nerve. But there is no one specific test to detect weakness of all three nerves. We have devised a test to detect nerve weakness of all three nerves at once.

3 NERVE TEST - (KUMAR TEST)

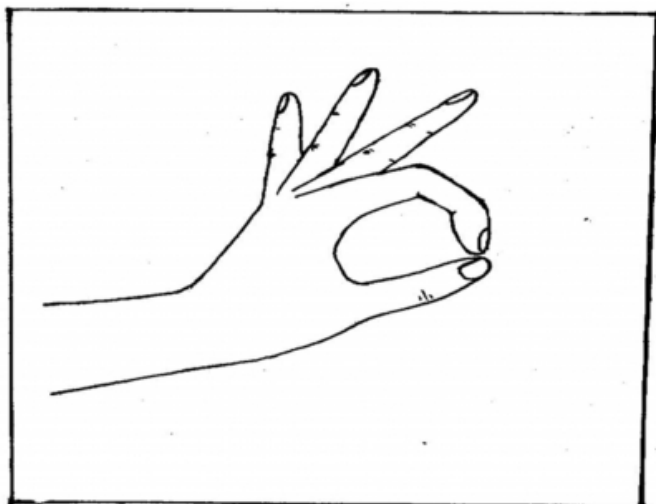
Ask the patient to dorsiflex his/her wrist,

Abduct the fingers of 3rd, 4th and 5th fingers and

Make a ring (O) sign with thumb and index finger tips touching each other (Figure 1). This single test will assess motor power of all three nerves.

Figure 1

Figure 1: 3 Nerve Test



Inability to dorsiflex wrist indicates Radial nerve weakness (wrist dorsiflexors₁); inability to abduct the ulnar half of fingers indicates Ulnar nerve weakness (Dorsal Interossei₁) and inability to appose thumb and index finger tips to make an O sign indicates Median nerve weakness (Flexor Pollicis Longus and Flexor Digitorum Profundus of index finger₁). This test can be effectively performed in a clinical setting to rapidly test for nerve weakness although the sensory component cannot be assessed at the same time. If a nerve weakness is detected, then further tests can be carried out to confirm it.

This test is a useful test to rapidly diagnose nerve injuries in casualty and clinical setting.

References

1. R McRae: Clinical Orthopaedic examination. 5th Edition 2004. Churchill Livingstone

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