

SPLIT HAND SIGN AND WARTENBERG SIGN IN AMYOTROPHIC LATERAL SCLEROSIS

Vasiliki Zouvelou MD, PhD^[1], Nikos Karandreas MD, PhD^[1]

^[1]1st Neurology Department, Eginition Hospital, National and Kapodistrian University of Athens, Greece

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A 72-year-old female, suffering from amyotrophic lateral sclerosis (ALS), presented with a 6-month history of painless, progressive right hand weakness. There was predominant atrophy of the first dorsal interosseous and thenar muscles with relatively preserved hypothenar (split hand sign) (Figure 1A, B). The fifth digit was involuntarily abducted (Wartenberg sign) (Figure 1C) due to the unopposed action of the abductor digiti minimi (hypothenar muscle). The split hand sign was first reported by Wilbourn in 1992 and is specific for anterior horn cell disorders [1]. In ALS, this is an early sign because in the advanced stage there is more or less equal wasting of the lateral and medial hand muscles [2]. The original report of the Wartenberg sign was by Robert Wartenberg himself at 1939. He emphasized the diagnostic importance of this sign in ulnar neuropathy [3]. Adduction of the little finger is performed by palmar interosseus muscle and abduction by hypothenar muscle, both are ulnar innervated. In ulnar palsy, the radial innervated extensor digiti minimi and the branch to the little finger of the extensor digitorum communis, predominate and abduct the fifth finger. Differentiation of the cause of Wartenberg sign is based on history and associated clinical signs.

Key words: split hand, Wartenberg, amyotrophic lateral sclerosis

Figure 1: Split hand sign (Fig 1A,1B) and Wartenberg sign (Fig 1C) in ALS



References

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