

T1 **radiculopathy** may produce a partial **Horner syndrome**.

Root **motor conduction time** (RMCT) can non**invasively** evaluate the status of the proximal **root** segment. However, its clinical application remains limited, and wider studies regarding its use are scarce. Park et al. aimed to investigate the association between **C8 radiculopathy/T1 radiculopathy** and RMCT.

Methods: This was a **retrospective cross-sectional** study. Subjects were extracted from a general hospital's **spine clinic database**. A total of 48 C8/T1 root lesions from 37 patients were included, and 48 C8/T1 root levels from control subjects were matched for age, sex, and height. RMCT was measured in the **abductor pollicis brevis muscle** and the assessment of any delays owing to C8/T1 radiculopathy.

Results: The RMCT of the C8/T1 radiculopathy group was 1.7 ± 0.6 ms, which was significantly longer than that in the control group (1.2 ± 0.8 ms; $p = 0.001$). The delayed RMCT was independently associated with radiculopathy (adjusted odds ratio, 1.15; 95% confidence interval, 1.06-1.27; $p = 0.011$) after adjusting for the peripheral motor conduction time, amplitude of median compound motor nerve action potential, and shortest F-wave latency. The area under the Receiver Operating Characteristic curve for diagnosing C8/T1 radiculopathy using RMCT was 0.72 (0.61-0.82). The RMCT was significantly correlated with symptom duration (coefficient = 0.58; $p < 0.001$) but was not associated with the degree of arm pain.

The findings illustrate the clinical applicability of the RMCT by demonstrating its utility in diagnosing radiculopathy at certain spinal levels ¹⁾.

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Park D, Lee SE, Cho JM, Yang JW, Yang D, Kim M, Kwon HD. Detection of C8/T1 radiculopathy by measuring the root motor conduction time. BMC Neurol. 2022 Oct 20;22(1):389. doi: 10.1186/s12883-022-02915-8. PMID: 36266617.

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