

EVALUATION OF THE SCRATCH COLLAPSE TEST FOR CARPAL AND CUBITAL TUNNEL SYNDROME – A PROSPECTIVE, BLINDED STUDY

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INTRODUCTION

- We prospectively evaluated the sensitivity (Sn), specificity (Sp), and inter-rater reliability (κ) of the scratch collapse test (SCT).

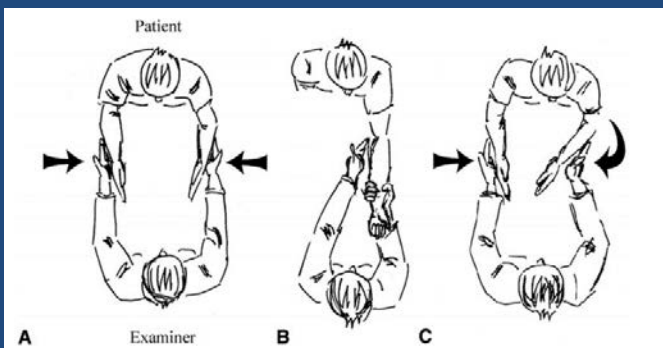


Fig. 1: The scratch collapse test.

MATERIALS AND METHODS

- Subjects recruited from patients referred for upper extremity nerve conduction studies.
- SCT performed by two blinded observers.
- Sn and Sp calculated with two different reference standards:
 - Electrodiagnostics (EDx)
 - CTS-6 (a validated clinical tool)

RESULTS

- 170 wrists and 139 elbows studied
- Sn and Sp for the two primary observers summarized in Table 1
- κ was -0.025 (worse than chance alone) for the resident/tech 1 and 0.211 (fair) for the resident/tech 2

CONCLUSIONS

- Sn and Sp for the SCT were lower than those found in non-blinded studies.
- κ ranged from worse than chance to fair, highlighting the operator-dependent nature of the maneuver.
- These results call into question the diagnostic utility of the SCT for carpal and cubital tunnel syndromes.

Table 1: Sensitivity and Specificity of the SCT

	SCT wrist, EDX standard		SCT wrist, clinical standard (CTS-6)		SCT elbow	
	Sensitivity (95% CI)	Specificity (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)
Resident	7% (3-14%)	78% (68-86%)	15% (9-25%)	87% (79-93%)	10% (1-40%)	90% (83-94%)
Tech 1	7% (3-14%)	94% (86-97%)	4% (1-11%)	93% (85-96%)	0% (0-32%)	99% (96-100%)

EDX: electrodiagnostic testing; CTS-6: Carpal Tunnel Syndrome 6