

Correlation of the macroscopic appearance of the median nerve in the carpal tunnel and pre-operative nerve conduction studies: evidence for the use of ultrasound in the diagnosis of carpal tunnel syndrome

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Background

- CTS affects 4% of people aged 25-75
- Diagnosis is clinical with nerve conduction helpful in confirming the diagnosis and offering a severity of disease

Methods

- All carpal tunnel decompressions completed by a single surgeon in a single centre over a 3 year period were assessed retrospectively to review the macroscopic description of the nerve and nerve conduction.
- Only those with both sets of data were included.

Results

NCS Grade	n	flattened	hourglass	contused
Mild	46	69.6%	26.1%	60.9%
Mod	43	65.1%	41.9%	32.6%
Sev	58	55.2%	53.4%	32.8%
χ^2	147	2.44 (p=0.30)	7.9 (p=0.02)	$\chi^2=10.3$ (p=0.006)

Conclusion

- Performing a carpal tunnel decompression is based on the clinical diagnosis of carpal tunnel syndrome.
- More recently pressures to confirm diagnosis have been placed on surgeons.
- Nerve conduction is regarded as the investigation of choice but is invasive.
- Evidence of compression may be assessed with ultrasound.