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# Comparison of the effectiveness of platelet-rich plasma and betamethasone in carpal tunnel syndrome

I. Leta<sup>1</sup>, I. Shcherb<sup>2</sup>, A. Levanchuk<sup>3</sup>, P. Dyachenko<sup>4</sup>, T. Smotriska<sup>5</sup>

<sup>1</sup>Vinnitsa, Ukraine, <sup>2</sup>Visualization, Neuromed clinic, Vinnitsa, Ukraine, <sup>3</sup>Vascular Surgery, Vinnitsa National Medical University, Vinnitsa, Ukraine, <sup>4</sup>Neurology, Vinnitsa National Medical University, Vinnitsa, Ukraine, <sup>5</sup>Neurology, VNMU, Vinnitsa, Ukraine

**Background and aims:** Compression of the median nerve in carpal canal is a common problem. There is some evidence of platelet-rich plasma (PRP) efficacy. Also, the standard treatment is local administration of betamethasone.

**Methods:** 18 patients (4 men) with confirmed moderate by nerve conduction study (NCS) and ultrasound diagnostics and do not have concomitant blood diseases not previously treated. After randomization by random numbers, PRP or betamethasone was injected into the carpal tunnel under ultrasound control (the patient was blinded to treatment). Prior to treatment NCS distal latency of compound muscle action potential (CMAP), Boston carpal tunnel questionnaire (BCTQ), visual analog scale (VAS) data were evaluated. After 3 months, the effect was monitored.

**Results:** in the PRP group there were 10 people, in the betamethasone group 8. The groups were homogeneous in age  $-46 \pm 7$  and the severity of CTS. 3 months after treatment, there was a significant improvement in both groups, but there was no significant difference in the PRP and betamethasone groups.

	Before treatment PRP	Before treatment betametasone	3 month after treatment PRP	3 months after treatment betametasone
<b>N</b>	10	8	10	8
<b>Distal latency</b>	5,44 s.d. 0,68	5,20 s.d. 0,46	4,49 s.d. 0,33	4.26 s.d. 0,25
<b>CMAP</b>			(p<0.05)	(p<0.05)
<b>BCTQ</b>	2,77 s.d. 0,4	2,5 s.d. 0,41	1,52 s.d. 0,33	1,50 s.d. 0,22
			(p<0.05)	(p<0.05)
<b>VAS</b>	5,6 s.d. 0,84	5,12 s.d. 1,12	2,4 s.d. 1,07	1,62 s.d. 1,4
				(p<0.05)

**Conclusion:** PRP injection may be an alternative to betamethasone. In the future, the selection will be increased.

**Disclosure:** Nothing to disclose