

EFFECTIVENESS OF DIACUTANEOUS FIBROLYSIS IN CARPAL TUNNEL SYNDROME IN A DIABETIC PATIENT: A CASE REPORT

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INTRODUCTION

Carpal Tunnel Syndrome (CTS) is the most common peripheral neuropathy in the upper quadrant. The prevalence for CTS ranges from 3.8% to 4.9% with a lifetime risk of 10%, which increases to a staggering 84% in patients with diabetes. Diabetes is linked to a double risk of developing CTS due to the increased intraneural pressure in the carpal tunnel or vascular deficiencies [1, 2].

Conservative treatment is recommended for mild and moderate cases, while a surgical approach is recommended for patients with severe CTS. However, even if patients with diabetic neuropathy may improve function and symptoms after CTS surgical release, they present more complications and worst results than CTS patients without this condition [3].

Although exercise and manual therapy are beneficial for patients with diabetic peripheral neuropathy, there is insufficient research on CTS in patients with systemic pathology [4].

The present study aims to analyse the effectiveness of physiotherapy treatment with diacutaneous fibrolysis in a diabetic patient suffering from CTS.

METHODS



Case Report

- Men
- 59y
- Diabetes type 1
- Bilateral severe STC (>2 y)
- Surgery List

Outcomes

- Baseline - Post - 3 months
- VAS: Pain, symptoms at night, paresthesias
- Function: Boston and DASH questionnaire.
- Strength: Pinch + Grip
- Touch sensation: Semmes-Weinstein Monofilament
- Mechanosensitivity: ULNT-1 + Remote secuencia
- Psychological and quality of life: Sleep Scale (MOSS); Kinesophobia scale (Tampa).
- Improvement perception: GROC scale.



Treatment

- 45 min x 3times (3 weeks).
- 25 min - Manual therapy + Diacutaneous fibrolyses
- 20 min - self-exercise instruction
- Self-exercices: 3 times /day

RESULTS

	Baseline	Post-treatment	3 months
VAS (mm)			
Pain	46	17*	14**
Night Symptoms	3	1	0†
Paresthesia	85	7*	11**
BCTQ			
SSS (11-55)	32	32	21**†
FSS (5-40)	21	12*	7**†
DASHe (0-100)	35,8	10,8*	5,8**†
MOSS (%)			
SLPD	16,3	6,7*	0**†
SLPSNR	40,0	40,0	20,0**†
SLPSOB	60,0	0	0**
SLPA	50,0	70,0*	80,0**†
SLPS	26,7	20,0*	26,7
SLPI	23,7	20,0*	13,3**†
SLPII	31,7	23,3*	17,1**†
SLPQRAW	1	0	1**†
TAMPAs (11-44)	21	16*	16**†
Strenght (kg)			
Grip	30,6	38,7*	33,3*
1-2 F	8,1	8,3	8
1-3 F	4,5	4,7	4,5
1-4 F	3,1	3	4
1-5 F	1,8	1,9	2,7†
NDT (°)			
ULNT-1 (elbow)	90	122,3*	100,1**†
Remote (wrist)	0	20	14†
Sensitivity SWM (1F to 5F)	4'08/3'84/3'84/3'84/3'84/3'61	3'84/3'84/3'84/3'61/3,22	3'61/3'61/3'61/3'61/3,22†
GROC	-	Minimally improved*	Much improved**†

VAS: Visual Analogue scale; SSS: Symptoms Severity scale; FSS: Function Severity Scale; SLPD: sleep disturbance; SLPSNR: snoring; SLPSOB: Awaken short of breath or with headache; SLPA: Sleep Adequacy; SLPS: Somnolence; SLPI: Sleep Problems Index I; SLPII: Sleep Problems Index II; SLPQRAW: Quantity of sleep; F: Fingers; NDT: Neurodynamic Test; SWM: Semmes-Weinstein monofilament.
 *Minimal detectable change between Baseline; †Maintains improvement; ‡ Minimal detectable change between Post-treatment; **No MDC values exist

CONCLUSION

We observed that a programme of Diacutaneous Fibrolysis treatment improved function, pain and quality of life in a diabetic type 1 men suffering from CTS.

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