

## Medical or Research Professionals/Clinicians

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#### REHABILITATION OF TEMPOROMANDIBULAR JOINT (TMJ) IN PATIENTS WITH SYSTEMIC SCLEROSIS (SSC). A COMPARISON BETWEEN TWO PROTOCOLS: PRELIMINARY RESULTS

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**My abstract has been or will be presented at a scientific meeting during a 12 months period prior to EULAR 2014:**

No

**Is the first author applying for a travel bursary?:** No

**Background:** In SSC patients, microstomia is frequent and impairs mouth function. It may be due to fibrosis of skin face and to changes in TMJ, scarcely evaluated and treated with rehabilitation in SSC.

**Objectives:** To evaluate, in SSC patients (pts) with microstomia due to TMJ dysfunction, the efficacy of 2 rehabilitation protocol.

**Methods:** We enrolled 26 SSC pts (22 women, 4 men; age and disease duration: 59.08 ± 10.31 and 13.65 ± 5.71 years) with microstomia and TMJ dysfunction. Group 1 (13 pts) was treated by Protocol 1 (P1) (home exercises for mimic, masticatory and neck muscles; 20 minutes/day, 3 days/week) and group 2 (13 pts) was treated by Protocol 2 (exercises plus face and neck, connective tissue massage, Kabat technique for mimic muscles, manual techniques -intra- and extra-oral manipulation of TMJ, stretching and mobilization of cranio-cervical muscles-; 1 hour/week). Pts were evaluated at T0, at T1 (end of treatment; week 12) and at T2 (at 8 weeks of follow-up) by: Helkimo Index (Anamnestic -A-dysfunction -D- and occlusal-O- index), for TMJ dysfunction; mobility of cervical rachis (cm) and mouth (ROM) (mm); SSC face involvement (facial skin score; Mouth Handicap in SSC scale-MHISS-).

**Results:** At T1, both protocols improved Helkimo A index and Helkimo O Score, while only protocol 2 improved Helkimo D (p<0.05). Mouth left lateralization and protrusion were improved by both protocols while mouth opening and right lateralization were increased only by P2 (p<0.05). At T1, P1 improved cervical anterior flexion and left rotation (p<0.05), with the latter result confirmed at T2 versus (vs) T0 (p<0.01), P2 ameliorated cervical right lateralization, while both protocols improved cervical left lateralization, right rotation and extension (p<0.05), with the latter result confirmed at T2 vs T0 for P1 and P2 (p<0.05). Both protocols reduced facial skin score at T1 (p<0.01), with the results confirmed at T2 vs T0 for both treatments (p=NS). P2 also improves at T1 vs T0 values of MHISS. (p<0.05).

		T0	T1	T2	PT0/T1	P T0/T2	PT1/T2
<b>Helkimo A</b>	<b>P1</b>	1.42±0.51	1.08±0.67	1.25±0.62	<0.05	NS	NS
	<b>P2</b>	10.57±4.8	55.64±2.17	9.28±5.73	<0.05	NS	NS
<b>Helkimo D</b>	<b>P1</b>	11.17±4.3	69.08±5.64	10.42±5.35	NS	NS	NS
	<b>P2</b>	10.57±4.8	55.64±2.17	9.28±5.73	<0.05	NS	NS
<b>Helkimo score O</b>	<b>P1</b>	2.68±0.49	2.33±0.78	2.50±0.67	<0.05	NS	NS
	<b>P2</b>	2.50±0.65	1.78±0.42	2.36±0.63	<0.01	NS	<0.05
<b>Mouth opening</b>	<b>P1</b>	42.83±9.1	44.42±13.83	45.08±9.18	NS	NS	NS
	<b>P2</b>	44.79±9.17	51.57±8.85	50.57±9.06	<0.001	<0.01	NS
<b>Mouth protrusion</b>	<b>P1</b>	7.5±2.47	10.63±2.42	9.08±2.61	<0.001	<0.05	<0.05
	<b>P2</b>	7.21±2.63	8.71±2.16	8.5±1.74	<0.05	NS	NS
<b>Cervical anterior flexion</b>	<b>P1</b>	3.92±1.16	3.00±0.47	3.54±0.78	<0.05	NS	NS
	<b>P2</b>	3.03±1.47	2.18±1.25	2.5±1.27	NS	NS	NS

<b>Cervical extension</b>	<b>P1</b>	18.50±2.81	21.58±2.94	22.46±1.96	<0.001	<0.001	NS
	<b>P2</b>	17.64±2.50	19.79±1.80	19.86±2.98	<0.05	<0.05	NS
<b>Facial Skin Score</b>	<b>P1</b>	6.33±2.74	3.83±1.90	4.33±2.01	<0.001	<0.01	NS
	<b>P2</b>	6.43±2.44	2.93±1.94	3.0±2.07	<0.001	P<0.001	NS
<b>MHISS</b>	<b>P1</b>	22.92±10.73	21.58±9.24	18.42±9.43	NS	NS	NS
	<b>P2</b>	22.43±10.43	13.64±7.81	16.50±9.53	<0.05	NS	NS

**Conclusions:** In SSc patients, both protocols improve TMJ and cervical mobilization, TMJ disability, and skin score. with some of the results confirmed at follow-up. P2, also improving SSc face disability, seems to ameliorate more items than P1 and to be more efficacious than P1.

**Disclosure of Interest:** None declared