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388 TRIGGER POINT TREATMENT IN CHRONIC PELVIC PAIN: COMPARISON OF ISCHEMIC COMPRESSION AND LASER APPLICATIONS

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AIMS OF STUDY

In addition to surgical and medical treatment, conservative physiotherapy methods are among the prominent options for treatment of Chronic pelvic pain (CPP). The efficacy of ischemic compression (IC) in musculoskeletal pain has been demonstrated and a few studies have been conducted in the pelvic region (1,2). Although several studies have used laser therapy in myofasyal pain syndrome (3), there are no studies comparing the IC and laser in CPP.

The purpose of this study was to evaluate the efficacy of ischemic compression (IC) versus low level laser therapy (LLLT) combined with exercise for TP in women with CPP and to compare the effects of the methods with each other. We think that both methods will be effective in the treatment of TP in CPP.

MATERIALS AND METHODS

- G power sample size calculator ➔ 12 for each group (MCID of VAS 30mm and SD 23.6mm, 95% CI and 90% power.)

Ischemic Compression (IC)
n=11
2 session X 6 weeks
90 sec for each TP

Low Level Laser Therapy (LLLT)
n=10
2 session X 6 weeks
90 sec for each TP
(2000Hz, 3J)

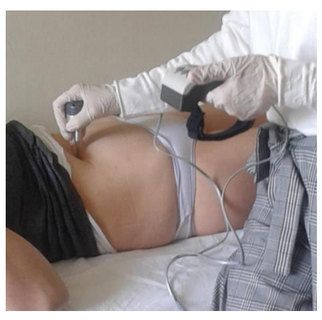
same exercise programe including streching and core stabilization

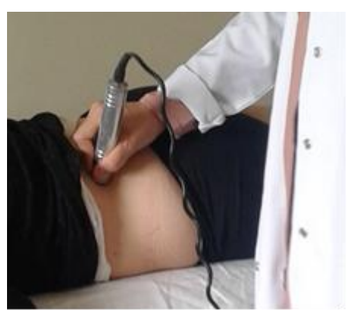
Outcome Measure
Pressure Pain Threshold (PPT)
Visual Analog Scale (VAS)
McGill Melzack Pain Questionnaire (MMPQ),
Range of Motion (ROM)
Urogenital Distress Inventory (UDI)
Global Pelvic Floor Bother Questionnaire (GPFBQ)
Short Form-36 (SF-36)
Hospital Anxiety and Depression Scale (HADS)
Patient Global Impression of Improvement (PGII)

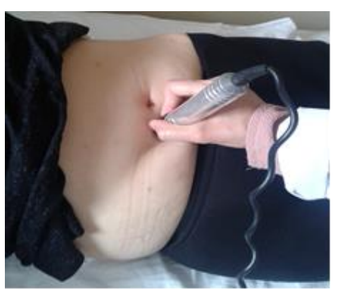
Baseline/after the interventions

Inclusion: Female CPP patients with at least 2 trigger points in the indicated muscles.

Exclusion: Neuropathy, central nervous system disorders, significant pelvic pathology or abnormality, severe prolapse, pregnancy







- Statistical Package for Social Sciences “(SPSS)

Table1: Baseline demographic features

	IC Mean±SD	LLLT Mean±SD	Independent Sample T-test p
Age (year)	38.91±9.78	33.7±9.03	0.22
BMI(kg/m²)	25.47±3.36	24.1±2.72	0.32

BMI: Body Mass Index

RESULTS

Table 2: A comparison of outcome measures within- between groups

	Before Treatment Mean±SD	After Treatment Mean±SD	Intra Group Chance Mean±SD	Paired sample t-test , p	Independent sample t-test p
VAS-Rest					
IC	5.45±2.15	3.09±1.75	2.36±1.12	**0.001**	**0.01**
LLLT	5.2±1.47	4.1±1.1	1.1±0.73	**0.001**	
VAS-Night					
IC	3.36±2.5	1.45±1.63	1.9±1.3	**0.001**	**0.01**
LLLT	3.1±1.52	2.6±1.26	0.5±0.7	**0.05**	
Present Pain İntensity-PPI (MMPQ)					
IC	19.18±3.34	16.9±3.3	2.27±1.55	**0.001**	**0.03**
LLLT	19.4±2.67	18.4±2.83	1.0±0.66	**0.001**	
Pressure Pain Treshold-Rectus Abdominus					
IC	3.0±1.17	5.3±3.46	2.13±0.8	**0.03**	**0.02***
LLLT	2.0±0.8	2.48±0.86	0.31±0.5	0.21	
Pressure Pain Treshold- Gluteus Maksimus					
IC	2.7±0.88	4.72±3.31	2.28±0.17	**0.02****	**0.15***
LLLT	2.14±0.72	3.25±0.6	1.11±0.45	**0.01****	
Urogenital Distress Inventory (UDI)					
IC	28.74±11.25	16.25±6.58	12.49±5.89	**0.001**	**0.001**
LLLT	14.98±5.96	9.14±4.72	5.84±2.16	**0.001**	
SF 36- Pain					
IC	32.5±20.4	57.63±17.07	25.13±14.2	**0.001**	**0.01**
LLLT	34.5±16.32	45.0±18.55	10.5±7.52	**0.001**	
SF36- Vitality					
IC	41.36±17.76	52.72±14.55	11.36±5.95	**0.001**	**0.05**
LLLT	45.25±19.09	51.25±18.97	6.0±5.67	**0.01**	
HADS- Depression					
IC	7.72±3.84	5.54±3.44	2.18±1.72	**0.001**	**0.05**
LLLT	6.4±2.45	5.5±1.71	0.9±0.87	**0.01**	

*: Repeated measure ANOVA; **Wilcoxon Singned Rank test

- As a result of our study;
  -pain (VAS and MMPQ), PPT,
  -functional status(UDI and GPFBQ),
  -quality of life (physical-mental health, pain and vitality subgroups of SF-36),
  -anxiety and depression evaluations were improved in both groups ($p<0.05$)(Table 2).

- In comparison between group;
  IC was found superior to LLLT for
  -VAS at rest and night, pain severity of MMPQ, PPT,
  -UDI,
  -pain and energy subgroups of SF-36 and
  -depression values ($p<0.05$).

- In the evaluation of range of motion; hip flexion was significant in both groups ($p<0.05$). There were no difference between the groups in terms of patient satisfaction ($p>0.05$)(Table 2).

CONCLUSSION

- Our study was the first study using LLLT in CPP patients. We used 3 J/cm2 density for 90 sec. Our results showed that the laser method is suitable for use in the pelvic region. According to a study performed in the pelvic region using IC (2), our IC outcomes were more significant on PPT. We believe that this improvement in our study is related to the combined use of IC with exercise. The improvement in quality of life can also be attributed to the same reason.

- Both treatment modalities are successful and can be used safely in patients with CPP. Since IC method is superior in terms of pain and quality of life, it can be recommended to physiotherapists primarily.

REFERENCES: 1. FitzGerald et al .2012 The Journal of urology , 2. Montenegro et al. 2015. BMC anesthesiology, 3. Carrasco et al. 2009. Cranio