E-Poster

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Effectiveness of Some Different Therapeutic Approaches in the Rehabilitation Program of Knee Osteoarthritis

Topic: Health Conditions (Nervous System, Musculoskeletal System, Cardiopulmonary System)

Galina Mratskova[1], Nedko Dimitrov[2], Alexandar Dimitrov[2], Damyan Petrov[3]

[1]*Department of Physical Medicine and Sports, Faculty of Medicine, Trakia University, Stara Zagora, Bulgaria*
[2]*Clinic of Orthopedics and Traumatology, University Hospital "Prof. Dr. St. Kirkovich", Faculty of Medicine, Trakia University, Stara Zagora, Bulgaria*
[3]*Faculty of Medicine, Trakia University, Stara Zagora, Bulgaria*

BACKGROUND

As a leading cause of disability and suffering, knee osteoarthritis (OA) has attracted the Physical Medicine specialists attention. Long-term pain reduces daily functional activity and interferes with occupational activities. The disease is the reason for seeking effective rehabilitation management programs. To evaluate the effectiveness of different therapeutic programs including: deep oscillation therapy or interferential current applied before therapeutic exercises in patients with knee OA.

METHODS

The study included 111 classified with 2-3 radiographic grade for knee osteoarthritis patients (79 women and 32 men) randomized into two groups: a Routine Group (RG; n = 54) and a Test Group (TG; n = 57). TG underwent Deep Oscillation treatment and exercise while WG underwent IFT treatment and exercise, a total of 10 sessions for each group. Pain was assessed by Visual Analog Scale at rest and walking and WOMAC index at baseline at the end of rehabilitation, after first and third month.

RESULTS

Pain at rest and walking had similar baseline values for both groups. For RG, the pain VAS at rest was 2.70 ± 0.84 and while walking - 4.02 ± 0.92; for TG VAS at rest was 2.72 ± 0.90 and while walking - 4.19 ± 1.01, respectively. The RG showed a significant decrease in pain at rest by the end of month 1 ($p < 0.001$), which persisted until month 3. When walking, pain decreased at months 1 and 3. In TG, pain at rest and while walking decreased significantly after therapy, and the result was maintained until the end of the follow-up period after the third month ($p < 0.001$). In total WOMAC, there was a decrease in IFT-treated group after therapy at months 1 and 3 ($p < 0.001$) compared to baseline, but increase at month 3 compared to month 1 ($p < 0.001$), although it was lower compared to baseline ($p < 0.001$). Better results were reported in the Deep Oscillation group. Total WOMAC decreased significantly over the observation period ($p < 0.001$) compared to baseline, with no difference found immediately after rehabilitation and after month 3 ($p = 1.00$).

CONCLUSION

Knee OA management requires careful selection of physical modalities applied in rehabilitation programs. This study shows Deep Oscillation combined with exercise to be more effective at the third month compared to IFT and exercise but both modalities combined with exercise are effective strategies to reduce pain and functional impairment.

Statement of Disclosures

Not applicable

Corresponding Author:
Galina Mratskova
Department of Physical Medicine and Sports, Faculty of Medicine,
Trakia University, Stara Zagora, Bulgaria
Email: doc_mratzkova@abv.bg

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