Combined Therapy of Intra-Articular Hyaluronic Acid Injection and Manual Therapy in Sportsmen affected by Coxarthrosis

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The effects of Hyaluronic Acid (HA) Injections under ultrasound guide are well known as a good treatment option in the conservative treatment of hip osteoarthritis. In our study, we evaluated 59 patients, 19 female and 40 male with average age 60.7 [max 84 and min 38] divided between sedentary individuals and those practising sport at agonistic and non agonistic levels all suffering from hip osteoarthritis. 33 patients [10 sedentary, 4 agonistic and 19 non agonistic] were treated with HA injections combined with Manual Therapy and Exercise Therapy and 26 [18 sedentary and 8 non agonistic] with HA injections only.

All patients were subjected to XRay and MRI of the Hip and, during the first examination in our surgery, a hip echography using the Migliore – Tormenta technique.

The rehabilitation protocol consisted of a combination of Manual Therapy and Physical Exercises and started at the moment of the first injection.

The programme lasted 6 weeks and each patient was treated once or twice a week. The goal of the programme was to increase mobility, strength and control of the Hip Joint.

At the beginning we evaluated active and passive hip range of motion (ROM), and the general joint functions through functional movements tests (Step Up, Trendelemburg Test, Deep Squat Test) and special tests (F.A.B.E.R. Test, Ober Test, Thomas Test, Compression Test, Hip Prone Extension Test).

After the initial evaluation we worked out an individual treatment protocol for each patient, focusing on the treatment of their own disfunctions.

Manual Therapy treatment consisted of a combination of soft tissue manipulation, myo-fascial stretching and mobilisation and/or manipulation techniques targeting movement limitations.

Each Manual Therapy session lasted from 30 to 45 minutes.

After the Manual Therapy treatment patients performed physical exercises consisting of joint mobility, followed by strength and neuro-muscular control exercises. We used elastic resistance exercises, core training, balance training and gait exercises.

Patients were recommended to continue the entire exercise programme at home between the physiotherapy sessions.

At the end of the programme we suggested that patients continue exercises at home in order to maintain the results, and to undergo a Manual Therapy session each month.

Patients who had HA injections combined with Manual Therapy and Exercise Therapy showed a greater reduction in pain VAS (>68%) than patients that had only HA injections (<49%). Regarding the functional state of the hip joint, patients treated with the combination of HA injections and rehabilitation showed a decrease of Lequesne index values (>58%) compared to patients who had only injections (35%).

Our findings show that the combination of Intra Articular injections of HA under ultrasound guide together with Manual Therapy associated with Exercise Therapy seems to be a better solution than HA Injection only in the conservative treatment of patients with hip osteoarthritis.