

Conclusion: Evidence-based medicine with these aforementioned studies supports the efficacy and safety of extracorporeal shock waves for the treatment of plantar fasciopathy. Patients have the right to have this methodology offered to them as a compensable treatment alternative when other conservative therapies have failed. The method is superior to invasive surgery, allowing rapid return to activities of daily living and work.

56. Use of shock waves in complementary therapy of dermatomyositis (DMS)

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Device and producing company: Minilith SL1, Storz Medical A.G

Introduction: Dermatomyositis is a chronic and uncommon disease that generally involves muscles and skin. Various data confirm its self-immunological pathogenesis, and its symptoms are common to other chronic rheumatic disease. Vasculitic phenomena involving capillaries, venules and arterioles are frequent. Their gravity is generally correlated to the possibility of serious necrotic hemorrhagic complications. The skin alterations are characterized by a maculo-papular rash that, especially on the back of the hands, has the tendency to develop in white atrophic areas. The muscular involvement, principally proximal, in its early symptoms, can be expressed by muscle pain with increasing asthenia and atrophy, generally due to reduced physical activity. Joint stiffness and severe joint pain represent the final evolution. Presently therapy is principally based on corticosteroids and rehabilitation. Shock waves (SWs) could represent a valid aid in the therapy of this disease.

Methods: An electromagnetic device was used both with a focalized and a non-focalized source: 5 single sessions over one week (5 applications), power 0.4 mJ/mm², 1600/1200 or 600 shocks in function of the specific treated muscle.

Results: The AA shows the results obtained both using focalized and non-focalized SWs.

Discussion: The Authors discuss the experiences developed using a combination of SWs, rehabilitation and drugs.

Conclusion: Shock wave therapy can represent a valid therapeutic help to improve joint movement, to reduce muscle contractures and pain, and to reduce corticosteroid doses.

57. Extracorporeal shockwave therapy in the treatment of the osteochondropathy of tibial bone roughness

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Introduction: The prevalence of Osgood-Shlatter disease among teenagers is as high as 20% and on the increase. Previous methods of treatment are not always effective, and the term of treatment can be as long as 6-12 months. The purpose of this study is to develop a scheme of treatment using ESWT, to improve results of treatment.

Methods: There were 2 groups of patients (103 persons) included in the research. The basic group (51 persons) consisted of patients who were treated with ESWT on a Swiss DolorClast, the course of treatment included 5 procedures; the interval between procedures was from 5 to 7 days. Treatment involved 2000-3000 impulses with frequency of 4-7 Hz and peak pressure 1.8-2.5 Bar during each procedure. The perifocal zone of the tibial bone roughness was

exposed as well as some area of the forefront of the tibial bone. Treatment in the control group (52 persons) was administered with Physico-Therapeutic Treatment, Nonsteroidal Resolvent, immobilization, and termination of stress. The results of treatment are studied for 3 to 12 months. The results were evaluated by means of the modified visual analog scale (VAS) on Coleman; the range of as from 0 to 10 where the minimal parameter corresponded to the best result.

Results: The length of treatment in the basic group was 4-6 weeks; in the control group up to 12 weeks. In the basic group, excellent results were achieved in 27 patients, good results in 19, and satisfactory results in 6. In the control group excellent results were achieved in 11 patients, good results in 13, and satisfactory results in 28.

Discussion: The results prove a role of stressing periosteopathy of the forefront of the tibial bone in disease development.

Conclusion: 1. The proposed scheme of treatment produces maximal excellent and good results in as little time as possible. 2. The carrying out of procedures is probably on a background of the minimal decrease of exercise stress.

58. Radial shock wave therapy as an aid to physiotherapy

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Device and producing company: Radialspec™, Medispec Ltd.

Introduction: Radial waves (RW) are currently used for orthopedic treatment. The Radialspec™ is a device for RW treatment, used by our department for about a year. Goals: Proving the effectiveness of RW in the treatment of multiple orthopedic pathologies.

Methods: Sixty-five patients were treated with the Radialspec™. Their clinical diagnosis, disease's acuteness status, treatment parameters, pain intensity, and functional level were documented. Follow-up was conducted following treatment.

Results: Clinical diagnoses were: 31% Shoulder pathologies, 31% Epicondylitis, 22% Plantar Fascial pathologies, and 16% "other" pathologies. Twenty-nine percent of the patients' pathologies were "chronic", 12% "sub-acute" and 6% were "acute on chronic". The average number of waves per treatment was: 4001.5.

Eighty-five percent of patients were treated at low intensity (10Hz) and 15% at high intensity (20Hz). Sixty-eight percent of patients were treated at low energy (80 mJ) and 32% at high energy (115 mJ). Patient's average number of treatments was: 5.6. The average change in pain intensity at treatment's completion (1-10 scale) was 3.75 points. Eighty percent of the patients showed improvement in pain. Sixty-three percent demonstrated functional improvement.

Follow-up was achieved in 60% of the patients. Average follow-up duration was 4.12 months. Follow-up demonstrates long-term improvement in 79% of the patients. Comparing their follow-up condition to their treatment completion status – 44% had stable results, 33% improved and 23% deteriorated.

Discussion: Long term improvement is achievable in about 80% of our patients. Some of them were previously treated unsuccessfully with conventional physiotherapy techniques.

Conclusion: RW Therapy is effective, safe and has added value to current conventional physiotherapy treatments with poor past response.