(77.2%), professional activity (70.8%), walking (66.5%), self-image (63.5%) and family life (59.4%).

Discussion. – The results assist in better understanding patient experience, needs and profiles. This innovative survey is a first important step to better recognize osteoarthritis as experienced by patients.

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Posters

P192-e

Effect of low-level laser therapy on joint short-term and long-term pain, synovitis, anabolic and catabolic factors in cartilage of rabbits’ progressive osteoarthritis induced by ACLT

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Keywords: Osteoarthritis; Catabolic factors; Anabolic factors; Synovitis; Low level laser therapy

To investigate the effect of low-level laser therapy on joint short-term and long-term pain, synovitis, anabolic and catabolic factors in cartilage of a progressive rabbit OA model induced by ACLT. 72 New Zealand White rabbits were randomly assigned into 2 groups (ACLT and LLLT group). All rabbits received ACLT surgery and were treated 2, 4, 8, 12 weeks after surgery, with 12 rabbits in each randomly assigned into 2 groups (ACLT and LLLT group). All rabbits received ACLT surgery and were treated 2, 4, 8, 12 weeks after surgery, with 12 rabbits in each study period being tested. LLLT is a helium-neon (He-Ne) laser (810 nm) of 13 J/cm², 3 times a week. Pain was tested by weight-bearing asymmetry. Synovitis was assessed by histology. Cartilage was evaluated by gross morphology, histology and gene expression analysis of anabolic and catabolic factors. Results showed that at least 6 week intermittent irradiation of LLLT could relief knee pain, control synovium inflammation, could decrease cartilage of medial femoral condyle damage and could decrease production of IL-1β, iNOS and MMP-3 and could slow down lose of TIMP-1. 8 weeks LLLT treatment could slow down lose of collagen II and TGF-β. The study suggests that LLLT plays a protective role against cartilage degradation and synovitis in rabbits with progressive OA, which could be achieved through the regulation of catabolic and anabolic factors and cartilage content in cartilage.

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P193-e

Effects of extracorporeal shock wave therapy on cartilage protection and subchondral bone remodeling in rabbits osteoarthritis induced by ACLT

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Keywords: Osteoarthritis; Extracorporeal Shock Wave Therapy; Cartilage Protection; Subchondral Bone

To investigate the effects of ESWT on cartilage protection and subchondral bone remodeling in rabbits osteoarthritis. Twenty-four rabbits were divided into two groups: ACLT group and ESWT group. Rabbits in two groups received ACLT to establish the knee osteoarthritis model. Rabbits from ESWT group received ESWT (Energy 1.6ba, Frequency 5 Hz, 1200 shock, 3 times per week, total 6 times in 4 weeks). Histological observation of rabbit articular cartilage; the bone mineral density was measured. The bone histomorphometry analysis was done in subchondral bone of femoral and tibial. IL-1β, TNF-α and NO was detected by ELISA. RT-PCR was used to analyze MMP-1, MMP-3, MMP-13 and TIMP-1 in cartilage. Histological assessments of MFC in ESWT group were significantly lower than that in ACLT group. The BMD of distal femora and tibia was significantly lower than that in ESWT group. ESWT decreased the trabecular bone relative volume, trabecular bone thickness and increased bone separation. MMP-1 and MMP-3 in ESWT group was significantly lower and TIMP-1 in ESWT group was significantly higher than that in ACLT group. ESWT could protect cartilage damage and subchondral sclerosis by regulating MMP-1, MMP-3 and TIMP-1 in cartilage and modulating subchondral bone metabolism.

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P195-e

Effect of extracorporeal shock wave therapy on knee osteoarthritis

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Keywords: Knee osteoarthritis; Extracorporeal shock wave therapy; Functional outcome

Introduction. – Knee osteoarthritis (OA) is the most common type of arthritis and a major cause of morbidity and disability. Extracorporeal shock wave therapy (ESWT) has been found to improve motor dysfunction and reduce pain in OA in animals.