result. The effectiveness of treatment was less in patients >65 years (OR 0.418; 95% CI 0.342-0.509, $p<0.001$), OA stage ≥ 2 by Kelgren-Lawrence (OR 0.556; 95% CI 0.298-0.738, $p<0.001$), with rest pain (OR 0.690; 95% CI 0.596 - 0.800, $p<0.001$), synovitis (OR 0.780; 95% CI 0.673-0.900, $p=0.001$), and sensory symptoms such as burning, pain cold, electric shocks (OR 0.530; 95% CI 0.458-0.613, $p<0.001$).

Conclusion: the ASU and KLS combination allows to achieve successful pain control in OA. A number of factors: age >65 years, OA stage ≥ 2 by Kelgren-Lawrence, rest pain, synovitis, and sensory symptoms are associated with the worst result of treatment.

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AB0806

EFFICACY MANAGEMENT AND ADHERENCE EVALUATION OF DICLOFENAC IN THE TREATMENT OF KNEE OSTEOARTHRITIS PAIN

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Background: The incidence of knee osteoarthritis is increasing day by day. The accompanying pain has seriously affected people's quality of life. No relevant researches have studied the relationship between pain relief and adherence after taking NSAIDs in outpatients.

Objectives: To investigate the effect of diclofenac on pain control of knee osteoarthritis and the relationship between pain relief and medicine adherence. To evaluate the pain relief rate of patients with different initial pain.

Methods: 120 patients with knee osteoarthritis were recruited from the outpatient department of osteoarthritis, Peking University People's Hospital. The population was randomly divided into the experimental and control group. The baseline and follow-up contents were interviews including socio-demographic factors, evaluation of knee pain, WOMAC and MMAS-8 questionnaire. The experimental group was given regular follow-up and medication advice, while the control group was only given observational records at the middle and late stages. SPSS25.0 nonparametric T test and one way ANOVA were used to evaluate the efficacy of diclofenac in relieving knee osteoarthritis pain and the relationship between pain relief and adherence.

Results: A total of 120 patients with knee osteoarthritis at baseline were randomly enrolled and 108 patients were followed up. 55 patients in the experimental group and 53 patients in the control group (1) The 2-week adherence of test group/control group was 86.38%/64.78% ($P<0.01$), the 6-week adherence of test group/control group was 75.24%/35.22% ($P<0.01$). The 2-week and 6-week adherence of test group and control group were significantly different ($P=0.015$ and $P<0.01$). (2) The pain relief rate at 2 and 6 weeks in the experimental group was 67.56% and 69.41%, respectively, the pain relief rate was significantly higher than baseline ($P<0.01$), but there was no significant difference between the two groups ($P=0.739$). The pain relief rates at 2 and 6 weeks in the control group were 46.51% and 29.03% and was significantly higher than baseline ($P<0.01$), there was a significant difference between the two groups ($P<0.01$). In the evaluation of 2 and 6 weeks, the pain relief rates in the experimental group were significantly different from those in the control group ($P<0.01$). (3) The initial pain scores of different degrees did not affect the adherence and pain relief rates in the experimental group. In the control group, the 2-week adherence of severe pain patients was higher than that of mild and moderate pain patients ($P<0.01$), but the 6-week follow-up adherence shows no significant difference in patients with different degrees of initial pain ($P=0.073$), the 6-week adherence of patients with moderate/severe pain (38.07%/42.6%) was significantly different from the 2-week adherence (68.34%/84.77%) ($P<0.01$), the 6-week pain relief rate (18.46%/29.72%) in patients with mild/moderate pain was lower than the 2-week pain relief rate (48.72%/47.44%) ($P=0.052/P<0.01$). (4) The patients with better adherence have the higher pain relief rate ($P<0.01$).

Conclusion: For patients suffering from knee osteoarthritis pain, diclofenac 150 mg/day for 6-week is recommended. Regular follow-up can improve

adherence significantly, increased adherence can improve the pain relief rate significantly, the pain relief rate may not be related to the patient's initial pain score. It is suggested that clinical workers should supervise the medication of patients with knee osteoarthritis and make regularly follow up.

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AB0807

FOLLOW-UP OF PATIENTSWITH HIP OSTEOARTHRITIS WHO RECEIVED VISCOSUPPLEMENTATION: HOW NEW TECHNOLOGIES CAN HELP

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Background: Digital health innovations have opened up several opportunities to help patients with rheumatologic conditions and their treating clinicians in improving routine healthcare.

Objectives: To evaluate the applicability of a wearable smartwatch for monitoring patients with hip osteoarthritis who received viscosupplementation. Samsung Electronics Italia and MDApp srl supported the present study.

Methods: Consecutive patients with hip osteoarthritis who received viscosupplementation with hyaluronic acid between November 2017 and May 2018 were enrolled in this observational study. All patients gave their informed consent. A Samsung Gear smartwatch was given to each patient and was worn during the day for measuring daily steps, walking distance, and mean velocity. Patients were asked to wear the smartwatch starting from one week before infiltration (T0), until two weeks before (T1). Patients were assessed with Lequesne index and WOMAC score at T0 and T1.

Results: Overall, 24 patients (7 male and 17 female, mean age 44 years-old) were enrolled. Of these, 70% has worn the smartwatch for most of the time (range 90-100%). An improvement of velocity (45%), an increase of daily steps (29%), and walking distance (25%) were seen. Similarly, Lequesne index and WOMAC score were consistent with subjective improvement. Most of the patients (95%) declared to be satisfied with this digital health study.

Conclusion: Samsung smartwatches proved to be an effective tool for tracking and recording medical parameters linked with perceived general health. Health technologies are more than an accessories and could be useful in chronic musculo-skeletal diseases because they allow to ease remote diagnosis and to monitor patients' symptoms and clinical response. Telemedicine could fill the gap between patients and healthcare, with a reproducible and objective tool, enhancing patients' engagement with the treatment plan. The high patients' satisfaction further support the use of digital health technology.

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