into 2 groups, 14 patients each. rPMS group received 3 sessions of magnetic stimulation 6,000 pulses, frequency 20 Hz, intermittent protocol with 10 s on and 30 s off time, total time 20 min at knee joint. Control group received 3 sessions of sham magnetic stimulation at knee joint. Both groups received instruction about exercise and lifestyle modification. VAS and Thai version of modified WOMAC were measured before treatment and one week after complete 3 sessions treatment.

Results: 28 patients participated in this study with mean aged (SD) of 62.67 (6.30) years, KL 2 and 3 were 14 patients equally. Baseline characteristic data (age, sex, BMI, duration, severity, baseline VAS and modified WOMAC were no statistically significant difference between group. At the end of the study showed statistically significant improvement of VAS and modified WOMAC in both groups. However, when compared efficacy of treatment between rPMS and control group, measured by the decrement of VAS and WOMAC score showed no statistically significant difference. The mean(SE) decrement of VAS between baseline and one week after treatment of rPMS and sham group were 2.01(0.41) and 1(0.40) respectively. The mean(SE) decrement of modified WOMAC between baseline and one week after treatment of the rPMS and sham group were 42.06(9.85) and 24.69(9.53) respectively. Exercise compliance and pain medication showed no statistically difference between group.

Conclusion: Three sessions rPMS intermittent stimulation 6,000 pulses, frequency 20 Hz, 20 min can improve pain and function in primary knee osteoarthritis patient but no statistically difference when compared to sham group.

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EFFICACY OF OSTEOPOROSIS TREATMENTS IN MEN: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Objective: To systematically identify and review efficacy of osteoporosis interventions in men.

Methods: The electronic databases Medline (via Ovid) and Cochrane CENTRAL were searched up to September 2022 for any randomized controlled trial evaluating the efficacy of osteoporotic treatment on the evolution of BMD and incidence of fractures of men suffering from primary osteoporosis. Study selection and data extraction were carried out by two independent researchers. Quality of individual studies was measured using the Cochrane Risk of Bias tool 2.0 and strength of evidence was assessed using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) tool. If at least two studies using the same pharmacological treatment and evaluated the same outcome were available, a random effect model meta-analysis was applied to reported pooled mean difference (MD) and 95% CI. Heterogeneity was measured using Cochran's Q and I^2 statistics. The Egger's regression asymmetry test was used to detect publication bias.

Results: From the 1,124 studies identified through bibliographic search, 21 RCTs fitted the inclusion criteria. Studies were rated with uncertain or low risk of bias. Bisphosphonates (k = 10, n = 2,992 men with osteoporosis; alendronate k = 5, risedronate k = 2, zoledronic acid k = 2, ibandronate k = 1) improved all three BMD sites compared to placebo; lumbar spine: MD + 4.75% (95% CI 3.45, 6.05); total hip: MD + 2.72% (95% CI 2.06; 3.37); femoral neck: MD + 2.26% (95% CI 1.67; 2.85). Publication bias were not detected (Egger test $p > 0.05$). Denosumab (k = 2, n = 242), teriparatide (k = 2, n = 309) and abaloparatide (k = 2, n = 248) also produced significant improvement of all sites BMD compared to placebo (p-values of MD < 0.05). Romosozumab was only identified in one study (reporting significant improvement compared to placebo) and was therefore not meta-analysed. Incidence of fractures was reported in 16 RCTs but only four of them reported fractures as the primary outcome. Treatments were associated with a lower incidence of fractures (median of vertebral fracture risk of 1.7% in the treatment group vs. 4.1% in the placebo group).

Conclusion: Medications used in the management of osteoporosis in women appear to provide a similar benefit in men with osteoporosis. Therefore, the algorithm for the management of osteoporosis in men could be identical to the one previously recommended for the management of osteoporosis in women, i.e. anti-resorptive agents in men at high risk of fracture and bone forming agents followed by anti-resorptive agents in men at very high risk of fracture.

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A PROSPECTIVE STUDY TO EVALUATE PATIENT-REPORTED QUALITY OF LIFE PRIOR TO AND AFTER ASFOTASE ALFA TREATMENT IN ADULTS WITH PEDIATRIC-ONSET HYPOPHOSPHATASIA

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Objective: To evaluate the impact of asfotase alfa (AA) on patient-reported outcomes (PROs) in adults with pediatric onset hypophosphatasia (HPP).

Methods: A longitudinal telephone-based survey was administered to adults with pediatric onset HPP at baseline (BL, prior to AA initiation) and follow-up (3 [3 M] and 6 months [6 M] post-initiation). Demographics and PROs (Patient Health Questionnaire-9 [PHQ-9], Patient-Reported Outcomes Measurement Information System [PROMIS-29], Routine Assessment of Patient Index Data 3 [RAPID3], and Work Productivity and Activity Impairment—Specific Health Problem [WPAI-SHP]) were assessed. McNemar's or Cochran–Mantel–Haenszel tests or paired t-test were performed, as appropriate.

Results: Among 50 enrolled patients, 40 were evaluable at 6 M. Mean age at BL was 46 (± 15.4) years; 80% were female. At 6 M, there was a statistically significant improvement from BL for PHQ-9 total score (10.6 at BL vs. 4.7 at 6 M, $p < 0.0001$), PROMIS-29 domain scores (physical functioning: 38.0 vs. 44.6, $p < 0.0001$; anxiety: 57.5 vs. 49.4, $p < 0.0001$; depression: 52.6 vs. 46.6, $p = 0.0005$; fatigue: 63.3 vs. 51.9, $p < 0.0001$; sleep disturbance: 58.8 vs. 52.3, $p = 0.0002$; social roles and activities: 42.6 vs. 50.4, $p < 0.0001$; pain interference: 63.8 vs. 56.7, $p < 0.0001$), and RAPID3 domain scores (functional status: 2.7 vs. 1.6, $p = 0.001$; pain tolerance: 6.0 vs. 3.6, $p < 0.0001$; global health estimate: 5.1 vs. 3.1, $p < 0.0001$). WPAI-SHP domains showed significant improvement at 6 M in absenteeism (4.7% vs. 0%, $p = 0.025$), presenteeism (39.6% vs. 14.1%, $p < 0.0001$), activity impairment (64% vs. 28.1%, $p < 0.0001$), and work productivity loss (41.9% vs. 14.1%, $p < 0.0001$). Most patients (84.1%) remained on AA at 6 M.