at least 10 hours was required. The VO_2 max measured with a graded maximal exercise test was used to determine the CRF. Pearson correlation coefficients were calculated for the associations between the different measures of physical activity and VO_2 max. For the variables that were associated, linear regression analysis was carried out, with pain and disease activity as possible confounders.

Results: Thirteen females and five males were included in the study. The mean age was 66.5 (± 15.0) years. Only 22% of the patients met public health physical activity guidelines for the minimal amount of 150 minutes a week. The mean step count was 6237 (± 2297) steps per day and mean moderate-to-vigorous physical activity time was 16.50 (± 23.56) minutes per day. The median VO_2 max was 16.23 [4.63] $\text{ml}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$, which is under the standard. Pearson correlations showed a significant positive association for step count with VO_2 max. No associations were found for sedentary, light, and moderate-to-vigorous physical activity with VO_2 max. The significant association between step count and VO_2 max ($p = 0.01$) was not confounded by disease severity and pain.

Discussion: Since better CRF protects against CVD, increasing daily step count may be a simple way to reduce the risk of CVD in patients with RA and high CV risk. However, these results need to be confirmed in a larger study group. Future research should investigate if improving daily step count will lead to better CRF levels and ultimately will lead to a reduction in CV risk in patients with RA and high CV risk.

Conclusion: Physical activity levels of patients with RA and high CV risk do not meet public health requirements for physical activity criteria and the VO_2 max was under the standard. Step count is positively associated with CRF.

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HPR Patients' perspectives, functioning and health (descriptive: qualitative or quantitative)

AB1321-HPR

DEVELOPING A SELF-MANAGEMENT INTERVENTION TO MANAGE JOINT HYPERMOBILITY SYNDROME AND EHLERS-DANLOS SYNDROME HYPERMOBILITY TYPE: AN ANALYSIS INFORMED BY BEHAVIOUR CHANGE THEORY

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Background: Joint Hypermobility Syndrome (JHS) and Ehlers-Danlos Syndrome Hypermobility Type (EDS-HT) are heritable disorders of connective tissue that can cause joint instability and pain and are associated with increased anxiety and depression. There is currently little UK guidance for supporting patients with JHS/EDS-HT¹. The analysis presented here used the Behaviour Change Wheel (made up of the Theoretical Domains Framework (TDF) and Capability, Opportunity, Motivation and Behaviour (COM-B) model²) to identify possible intervention options to improve self-management in people with JHS/EDS-HT.

Objectives: To determine recommendations for the components of a behaviour change intervention for people with JHS or EDS-HT.

Methods: Data from: 1) A systematic review and thematic synthesis of the literature examining adults' lived experiences of JHS/EDS³ and 2) A thematic analysis of interview data where UK adults with JHS/EDS-HT ($n=17$, 14 women, 3 men) discussed the psychosocial impact of the condition on their lives⁴, were mapped onto the TDF and COM-B in a behavioural analysis. A modified Nominal Group Technique focus group ($n=9$, all women) explored which interventions identified by the TDF/COM-B mapping exercise were most important to them.

Results: Participants prioritised a range of potential self-management interventions, including:

Education: Participants wanted greater support to improve their knowledge of JHS/EDS-HT, including self-help strategies for coping with injury, fatigue and overexertion, and how to evaluate information about their condition.

Training: In activity pacing, assertiveness and communication skills, and what to expect during pregnancy, when symptoms of JHS/EDS-HT can worsen.

Environmental restructuring and enablement: Support from occupational therapists to maintain independence at home. Enablement of access to CBT, mindfulness and emotional support.

Modelled behaviour: Positive first-person narratives that address how other patients with JHS/EDS-HT have coped with anxiety, depression, distress, fear, frustration and feelings of loss.

Conclusion: This study is the first to apply theoretically-informed approaches to the management of JHS/EDS-HT. Through a modified nominal group technique, potential behaviour change interventions for addressing barriers to self-management have been prioritised. Discussion with participants indicated poor access to psychological support, occupational therapy and a lack of knowledge of JHS/EDS-HT. Future research with healthcare professional and patient stakeholder groups will further evaluate which intervention options would be most acceptable and feasible for the management of JHS/EDS-HT.

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AB1322-HPR NON-INFECTIOUS ACUTE INFLAMMATORY ARTHRITIS IN JOINT ARTHROPLASTY

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Background: Acute inflammatory arthritis (AIA) in a native knee joint is a common pathology with a well-defined differential diagnosis which includes crystal-induced arthritis. Presenting symptoms in a knee joint arthroplasty (KJA) can mimic a periprosthetic hematogenous infection (PHI). There are few studies in current literature that describe possible causes of non-infectious arthritis in KJA. PHI requires, in most cases, an urgent combined surgical and antibiotic (AB) treatment. Describing and studying other possible diagnoses that may resemble PHI in a KJA is mandatory in order to minimize diagnostic errors and avoid unnecessary treatments.

Objectives: To analyze the characteristics of AIA in KJA with negative cultures in patients with an initial diagnosis suspicion of PHI.

Methods: A retrospective case series was conducted at a tertiary-level hospital including all patients diagnosed with an AIA in KJA with negative cultures from January 2012 to December 2019. Demographic data, clinical presentation, management and outcomes were recorded and analyzed.

Results: A total of 11 cases in 9 patients were included (6 females and 3 males) with a median age of 69 years at the time of diagnosis. All patients had risk factors for AIA (6 had chondrocalcinosis (CC), 2 hyperuricemia and 1 psoriasis). However, crystal deposits in synovial fluid (SF) for none of the patients had been previously found.

The median time from the index surgery to clinical presentation was 6 months, and from initial clinical presentation signs to referral was 24 hours. All cases presented with pain and swelling and 5 presented with erythema. Median body temperature on admission was 37.2°C. All patients presented with no acute distress. Initial blood tests showed a median white blood cell count and CRP of 11.160/mm³ and 90mg/L, respectively. Blood and SF cultures were taken for all cases. The median white blood cell count in SF was 75.883/mm³.

Three cases had received AB treatment during a median of 6 days prior to microbiological sampling. After initial sampling, 6 cases received AB prior to surgery, 1 received AB after surgery, 1 received only AB and 3 were treated only with NSAIDs. In all cases, surgical treatment consisted in radical surgical debridement and polyethylene insert exchange.

Further blood and SF tests were performed 4 days after admission. The mean decrease for systemic white blood cell count, CRP and synovial leukocyte count was 46%, 58% and 56%, respectively. All cultures were negative and crystal deposits were not identified for any of the samples.

The median duration of symptoms was 127 days with a good outcome. 6 patients received AB for a median of 69 days.

Conclusion: Non-infectious AIA in KJA is a rare entity that should be accounted for the differential diagnosis of periprosthetic joint infection. The initial diagnosis