

## RESEARCH REPORT POSTER DISPLAY

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HIGH PREVALENCE OF HYPERMOBILITY AND BENIGN JOINT HYPERMOBILITY SYNDROME (BJHS) IN OMAN. Clark C<sup>1,2</sup>, Simmonds J<sup>3</sup>; <sup>1</sup>University College, London, UK. <sup>2</sup>Khoula Hospital, Muscat, Sultanate Of Oman. <sup>3</sup>University of Hertfordshire, Hatfield, UK

**PURPOSE:** To ascertain the prevalence of hypermobility and BJHS in a female patient population with musculoskeletal pain and compare the associated features with a pain free control group. **RELEVANCE:** Hypermobility is linked with increased musculoskeletal signs and symptoms. The existence of hypermobility with pain may indicate the presence of BJHS, which is a heritable connective tissue disorder synonymous with Ehlers-Danlos type III. Hypermobility is known to be race dependant with Asians and Africans being more hypermobile than Caucasians. The fragility of tissues in those with BJHS makes them more vulnerable to pain associated with soft tissue overuse injuries, traumatic synovitis, sprains and recurrent shoulder dislocations (Grahame 2000; Grahame et al 1981; Finterbush and Pogund 1982) it is also associated with delayed tissue healing, impaired proprioception (Mallik et al 1994; Hall et al 1995) and chronic pain. (Harding and Grahame 1990) **PARTICIPANTS:** 94 Female Omani patients with musculoskeletal pain attending the rehabilitation department outpatient clinics of the Khoula Hospital aged 18–50 were examined. 90 controls of the same age were recruited from the female Omani hospital staff. **METHODS:** All patients and controls were examined and questioned by one physiotherapist (CC), who had received training from a rheumatologist (RG) in clinical examination of patients at the hypermobility clinic, University College Hospital, London. Patients and controls were examined using the Beighton score and Brighton Criteria. **ANALYSIS:** Analysis was by  $\chi^2$  for number of individuals and t-test for joint mobility scores. (Excel<sup>®</sup> 2002) **RESULTS:** 51% of patients were found to be hypermobile as opposed to 30% of controls ( $p = 0.015$ ). 55.3% of patients had features of BJHS as opposed to 21.1% of controls. ( $p \leq 0.0001$ ). Significantly more patients presenting with knee pain had BJHS ( $p = 0.02$ ). There was a non-significant trend for patients with BJHS to re-attend the out patient clinics ( $p = 0.06$ ). **CONCLUSIONS:** This study established that this patient population was significantly more hypermobile than a control population. The incidence of BJHS in patients in this study was higher than that noted amongst female Caucasians, but similar to non Caucasians attending rheumatological clinics in the UK. (Grahame and Hakim 2004). Further epidemiological studies are required in other populations to look at patient re-attendance in musculoskeletal clinics and more specifically for those presenting with back and knee pain. **IMPLICATIONS:** Better recognition and awareness of hypermobility and BJHS will enable patients to receive treatment programmes, modified to take into account tissue fragility, hypermobile joints, impaired proprioception and chronic pain. **KEYWORDS:** Hypermobility, Pain, Joints. **FUNDING ACKNOWLEDGEMENTS:** No funding. Jane Simmonds, UCL supervising team, Professor R. Grahame and Dr. A. Hakim from the Hypermobility clinic UCH, London, Professor H. Holmberg, Khoula Hospital Director, Samia Al Marjebly head of rehabilitation, the staff and patients of Khoula Hospital, Muscat, Oman. **CONTACT:** cclark@bournemouth.ac.uk

**ETHICS COMMITTEE:** Khoula Hospital Ethics committee, Khoula Hospital, Muscat, Oman (12/11/2003)

