

JOINT HEALTH STATUS IN PATIENTS WITH MODERATE HEMOPHILIA A: A CROSS-SECTIONAL MULTI-CENTER STUDY.

I.L. Calcaterra¹, F. Picasso², F. Valeri³, E. Baldacci⁴, M. Napolitano⁵, C. Guerrino¹, E. Zanon⁶, C. Santoro⁴, S. Siragusa⁷, C. Martinoli², M. Di Minno¹.

*1*Department of Clinical Medicine and Surgery, Regional Reference Centre for Coagulation Disorders, Federico II University, Naples; *2*Department of Health Sciences "DISSAL", Università di Genova, Genova; *3*Regional Centre for Hemorrhagic and Thrombotic Diseases, AOU Città della Salute e della Scienza, Turin; *4*Haematology, Department of Translational and Precision Medicine, 'Sapienza' University, Roma; *5*Department of Health Promotion, Mother and Child Care, Internal Medicine and Medical Specialties, University of Palermo and Haematology Unit and Rare Disorders Hospital "V. Cervello", Palermo; *6*Haemophilia Centre, General Medicine, Padua University Hospital, Padua; *7*Department PROMISE, University of Palermo, Palermo.

Background: The prevalence of arthropathy in patients with moderate hemophilia A (mHA) is highly variable. People with mHA are often under-treated, and this may lead to joint damage and worsen quality of life. The aim of the present study was to evaluate joint status in mHA by means of point-of-care ultrasound (PoC-US) and clinical examination.

Methods: Consecutive mHA patients receiving on-demand replacement treatment underwent a clinical examination of joint status according to HJHS protocol. On the same day, all patients underwent a PoC-US assessment according to the HEAD-US protocol.

Results: A total of 51 subjects were included. The median HJHS score was 2.0(IQR:0-3.0). A 0-1 HJHS score was found in 23 mHA patients (45.1%), between 2 and 3 in 17 (33.3%)

and >3 in 11 (21.6%). The median HEAD-US score was 2.0(IQR:1-7) and a statistically significant correlation between HJHS and HEAD-US was found ($\rho=0.732$, $p<0.001$). Osteochondral damage was found in 21.6% patients, hypertrophic synovium (HS) was found in 29.4%. Among those reporting a 0-1 HJHS score, 13.0% showed HS. The analysis at joint level showed that the most commonly affected joint was the ankle, both for osteochondral damage and for the presence of hypertrophic synovium.

Conclusion: Our study suggests that the prevalence of arthropathy changes in patients with mHA receiving on-demand treatment is not negligible and that PoC-US is able to detect osteochondral damage as well as HS in this clinical setting. A more extensive screening of the joint status could be useful to tailor treatment and improve outcome in mHA.

Email: ileniacalcaterra@hotmail.it

