Conclusions: In combination with the HEp-2 cell assay, the SeraSpot® ANA assay can be used as a novel cost-effective multiplex assay for the serological confirmation of CTBs.

REFERENCE:

Disclosure of Interest: None declared
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THE DIFFERENCES OF THE DISTRIBUTION OF FEEDING VESSELS AND BONE SURFACE IRREGULARITY BETWEEN YOUNG AND ELDERLY ADULTS IN WRIST JOINTS OF HEALTHY VOLUNTEERS BY MUSCULOSKELETAL ULTRASOUND (MSKUS)

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Background: Synovial vascularity as measured by power Doppler (PD) of MSKUS is correlated to rheumatoid arthritis disease activity, and PD signal reveals the prevalence of subclinical synovitis overlooked on physical examination. It is often difficult to distinguish bone erosion from normal concave surface of the bone, and it is necessary for us to familiarize with these normal structures well in evaluating disease activity by using MSKUS. Here we examine the age-specific differences of normal feeding vessels and bone surface irregularity between in wrist joints.

Objectives: To elucidate the differences of distribution of feeding vessels and bone surface irregularity in wrist joints both young and older adults among healthy volunteers.

Methods: The dorsal side wrist joints were scanned with 2D-probe in healthy volunteers (young <50 y.o., elder>50 y.o). The distribution of feeding vessels in the capsule and the extensor (E.) tendon sheath (TS), and the evaluation of bone surface irregularity at lunare(Lu) were examined. The comparative review between young and elderly adults was validated.

Results: The distribution of feeding vessels in younger healthy volunteers (n=30; mean age 32.2±8.0 y.o.) vs elderly healthy volunteers (n=21;mean age 66.0±7.2 y.o.) were near-Trapezoid (Rt100.0% vs 100.0%, Lt100.0% vs 100.0%; p=1.00), E-digitum miniitmTS(Rt66.7% vs 81.0%,Lt66.7% vs 76.2%;p=0.47), E-digitum minus(TS)(Rt30.0% vs 52.4%, Lt30.0% vs 66.7%;p=0.0089), near-Capitate(Rt23.3% vs 42.9%;p<0.14, Lt30.0% vs 47.6%;p<0.21), near-TRFC(Rt16.7% vs 19.0%;p=0.83, Lt30.0% vs 38.1%;p=0.56), distal radial side of radialis vessel channels were depicted at Lu(Rt35.3% vs 52.4%;p<0.006, Lt44.6% vs 66.7%;p=0.16), Radius(Rt20.0% vs 33.3%;p<0.29, Lt16.7% vs 28.6%;p<0.68), distal end of Ulna(Rt10.0% vs 42.9%;p<0.006, Lt16.7% vs 28.6%;p<0.31), feeding vessels from vascular channels were depicted at Lu(Rt35.3% vs 52.4%;p<0.006, Lt44.6% vs 66.7%;p=0.16, Radius(Rt20.0% vs 33.3%;p<0.29, Lt16.7% vs 28.6%;p<0.54), Triquetrum(Rt10.0% vs 42.9%;p<0.0057, Lt16.7% vs 33.3%;p<0.17) and Capitate(Rt6.7% vs 33.3%;p<0.013, Lt10.0%vs33.3%;p<0.0095). The bone surface irregularity as a transverse diameter (Mean ± S.D.) at Lu of dominant hand in both groups were 1.26±0.33 vs 1.14±0.2 mm;p=0.21, respectively.

Conclusions: The frequency of feeding vessel’s distributions in elderly adults were significantly higher at E.digitum miniitmTS, distal end of Ulna and Triquetrum/Radial vascular channels compared to those of younger adults. It is suggested that these differences are crucial to evaluate the age-specific synovitis with ultrasound.

Disclosure of Interest: None declared

FROM THE CALCANEUS QUANTITATIVE ULTRASONOGRAPHY (QUS) TO THE FEMORAL RADIOFREQUENCY ECHOGRAFMULTI SPECTROMETRY (REMS): NON-IONISING APPROACHES TO DIAGNOSE OSTEOPOROSIS PROPOSED BY F.I.R. M.O. FOUNDATION

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Background: The high prevalence of osteoporosis and its insidious development, often silent until a fracture occurs, make it necessary to resort to prevention by promoting early diagnosis and educational programmes for a healthy life style.

Objectives: To develop screening campaigns of the Italian population for the osteoporosis prevention thanks to the collaboration with F.I.R.M.O. Foundation (Fondazione Italiana Ricerca Malattie Ossee).

Methods: An experienced medical staff administered to the afferent people the IOF “One minute risk test” questionnaire, (to detect the presence of clinical risk factors), together with a densitometric examination performed by a portable device aboard a mobile unit, in several Italian cities between 2011 and 2017. The technique employed to assess bone status in 2011 and 2012 was calcaneus Quantitative Ultrasonography (QUS), applied to a peripheral skeletal site, which has been shown as effective in identifying osteoporotic men or post-menopausal women. Although representing a low-cost and accessible approach, the heel measurement of speed of ultrasound (SOS) can be influenced by foot positioning, oedema and temperature.

Since 2017, a novel non-invasive densitometric technique is available, which allows to evaluate the axial fragile bone sites (spine and femur). It is Radiofrequency Echographic Multi Spectrometry (REMS), that a multicentric clinical study has been shown to provide parameters highly correlated with DXA ones. The technique employed to assess bone status in 2011 and 2012 was calcaneus Quantitative Ultrasonography (QUS), applied to a peripheral skeletal site, which has been shown as effective in identifying osteoporotic men or post-menopausal women. Although representing a low-cost and accessible approach, the heel measurement of speed of ultrasound (SOS) can be influenced by foot positioning, oedema and temperature.

Results: As measured by calcaneus QUS in 7305 subjects, the prevalence rate of osteoporosis was approximately 18.7%, while the 42.6% had a T-score compatible with osteopenia. People with a QUS T-score <-2.5 was recommended to early undergo a DAX at lumbar and femoral sites and a specialist visit.

Disclosure of Interest: None declared