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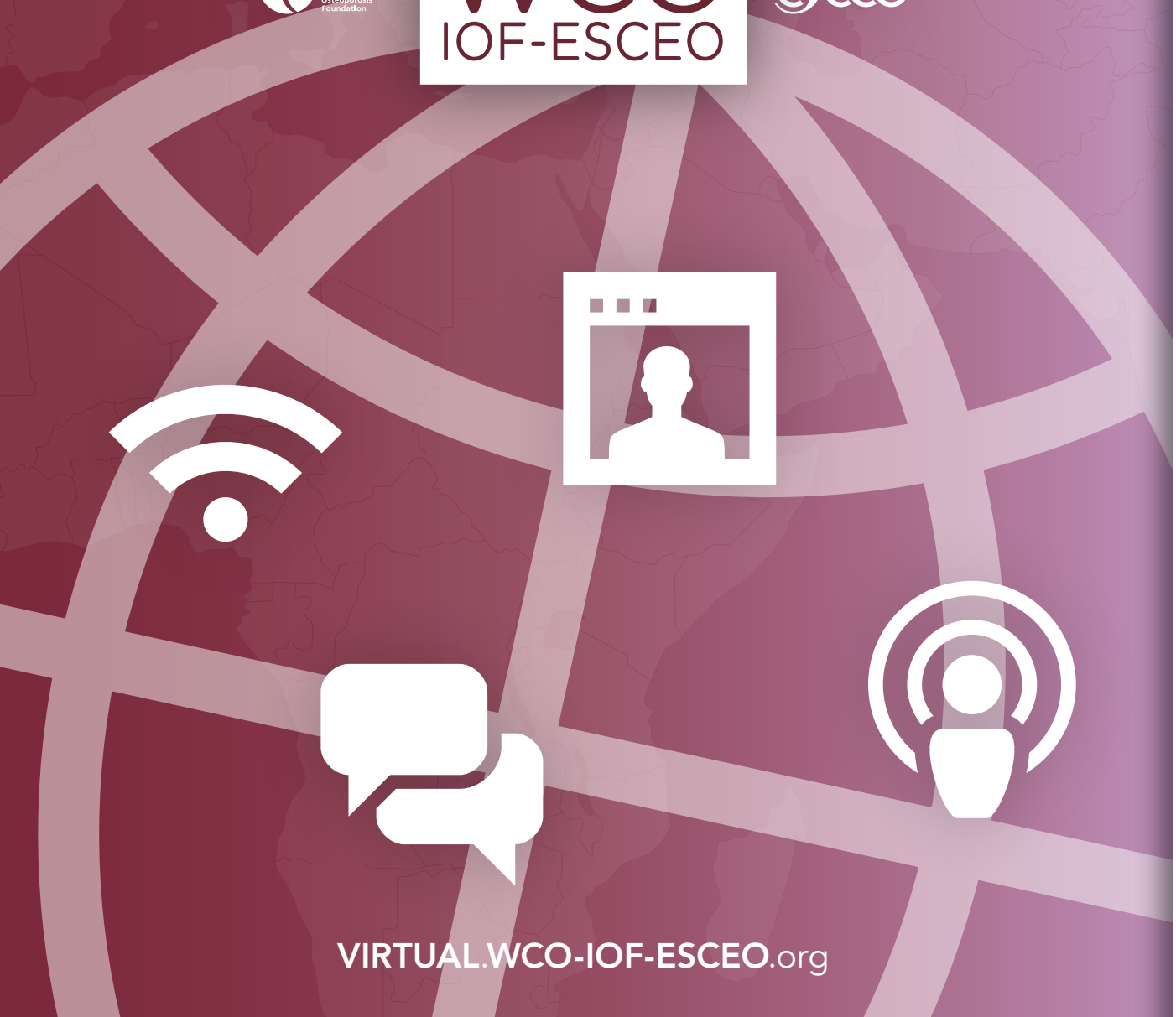

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AbstractBook

April 30, 2018. Two Hologic scanners were available at the Lille University Hospital. Frequency of HBM was evaluated as were causes associated with HBM.

Results: At the lumbar spine, 18,229 bone density tests were performed in women and 10,209 in men. At the hip, 17,390 tests were performed in women and 9857 in men. The total number of patients who performed at least one bone density test was 14,745 with 64.2% of female. Among these patients, 211 of them had a T- and/or Z-score ≥+4 at any site, i.e., a frequency of 1.43% [1.25%-1.64%]. DXA scans and medical records of 92 men and 119 women with high BMD were screened to assess causes. An artefactual cause was found in 75% of patients with HBM (mostly degenerative disease of the spine) and an acquired cause of focal HBM was only found in 2 patients with sclerotic bone metastases from prostate cancer. An acquired cause of generalized HBM was found in 15% of patients with a vast majority of renal osteodystrophy (n=11), hematological disorders (n=9; e.g., myeloproliferative syndromes and mastocytosis) and diffuse bone metastases from solid cancer (n=5). Of the remaining causes, rare hereditary diseases (e.g., osteopetrosis...), and unexplained high BMD were found in 10 and 6 cases respectively.

Conclusion: The frequency of high BMD (T- or Z-score≥+4 at any site) was higher than expected. This study indicates that the causes of high BMD were mainly due to osteoarthritis. Further works are needed to differentiate artefactually HBM from hereditary or acquired high BMD and to investigate unexplained high BMD.

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MUSCULOSKELETAL COMPLICATIONS IN PATIENTS WITH HEREDITARY HEMOCHROMATOSIS: A CROSS-SECTIONAL STUDY OF 93 PATIENTS

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Objective: To determine the frequency and characteristics of musculoskeletal complications, both arthropathy and bone fragility, in hereditary hemochromatosis (HH) and related factors.

Methods: In this cross-sectional observational study of 93 patients with HH, demographic and disease-specific variables, genotype, and organ involvement were recorded and a complete rheumatologic investigation was performed. Radiographs of the hands, wrists, knees, and ankles were scored for joint space narrowing, erosions, osteophytes, and chondrocalcinosis. Prevalent (vertebral and non-vertebral) fragility fractures were recorded and BMD was systematically evaluated by dual energy x-ray absorptiometry at the lumbar spine, total hip and femoral neck. Bone fragility was defined by: (i), a T-score ≤ -2.5 at any site with or without a prevalent fragility fracture, or (ii) a T-score between −1.0 and −2.5 at any site and a prevent fragility fracture.

Results: The mean age of patients was 60.0 (11.2) years, and 58.0% were men. The frequency of MCP2-3 arthropathy was 37.6% [95%CI 0.28 to 0.48]. MCP2-3 arthropathy was independently associated with older age (OR 1.17 [1.09−1.26] per yr, p<0.0001), male sex (OR 3.89 [1.17-12.97], p=0.027) and the presence of the C282Y+/+ genotype (OR 4.78 [1.46-15.68], p=0.010). The frequency of bone fragility was 20.4% [95%CI 0.13-0.30]. "Bone fragility" was independently associated with hepatic cirrhosis (OR 8.20 [1.74-38.68], p=0.008).

Conclusion: MCP2-3 arthropathy was found to occur in 37.6% of patients with HH. The association observed between this arthropathy, homozygosity for C282Y, male sex and older age suggests that demographic characteristics and genetic background are likely to be major determinants of this arthropathy and to be more important than severity of iron overload. Bone fragility was observed in a fifth of patients with HH, independently of the genetic background and severity of iron overload, and was strongly associated with hepatic cirrhosis.

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LEVEL OF TISSUE CYTOKINES AS NEW DIAGNOSTIC BIOMARKER OF BONE METABOLISM DISORDERS IN RHEUMATOID ARTHRITIS

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Objective: Currently, there is evidence that the level of hormone secretion of white adipose tissue can affect bone metabolism and BMD [1-4]. We aimed to study the clinical and diagnostic value of serum fetuin A, nesfatin, hemerin, leptin, adiponektin, resistin, visfatin determination in RA patients complicated by OP.

Methods: We examined 88 women with documented diagnosis of RA (EULAR/ARA 2010 criteria) with OP of 6.56±0.88 y and 45 healthy females aged of 25 and 59 years were included in the study. We measured cytokine levels using ELISA commercial test systems.

Results: At the first stage, the level of pro-inflammatory cytokines was studied in a group of healthy individuals. Then, the reference values of these indicators were measured as M±2d. Patients with OP and RA had significantly higher levels of serum pro-inflammatory cytokines (p<0.001). For example, mean serum Adiponectin levels in RA patients who had normal bone density and had no OP were 35.21±0.6 μg/ml. Mean serum Adiponectin levels in RA/OP patients with low BMD were 52.42±0.69 μg/ml. Adiponectin levels of 44 μg/ml and higher were associated with osteoporosis. Other pro-inflammatory cytokines have demonstrated similar dynamics of level serum.

Conclusion: Thus, we revealed that fetuin A, nesfatin, hemerin, leptin, adiponektin, resistin, visfatin levels depend on osteoporosis presence in RA patients.

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