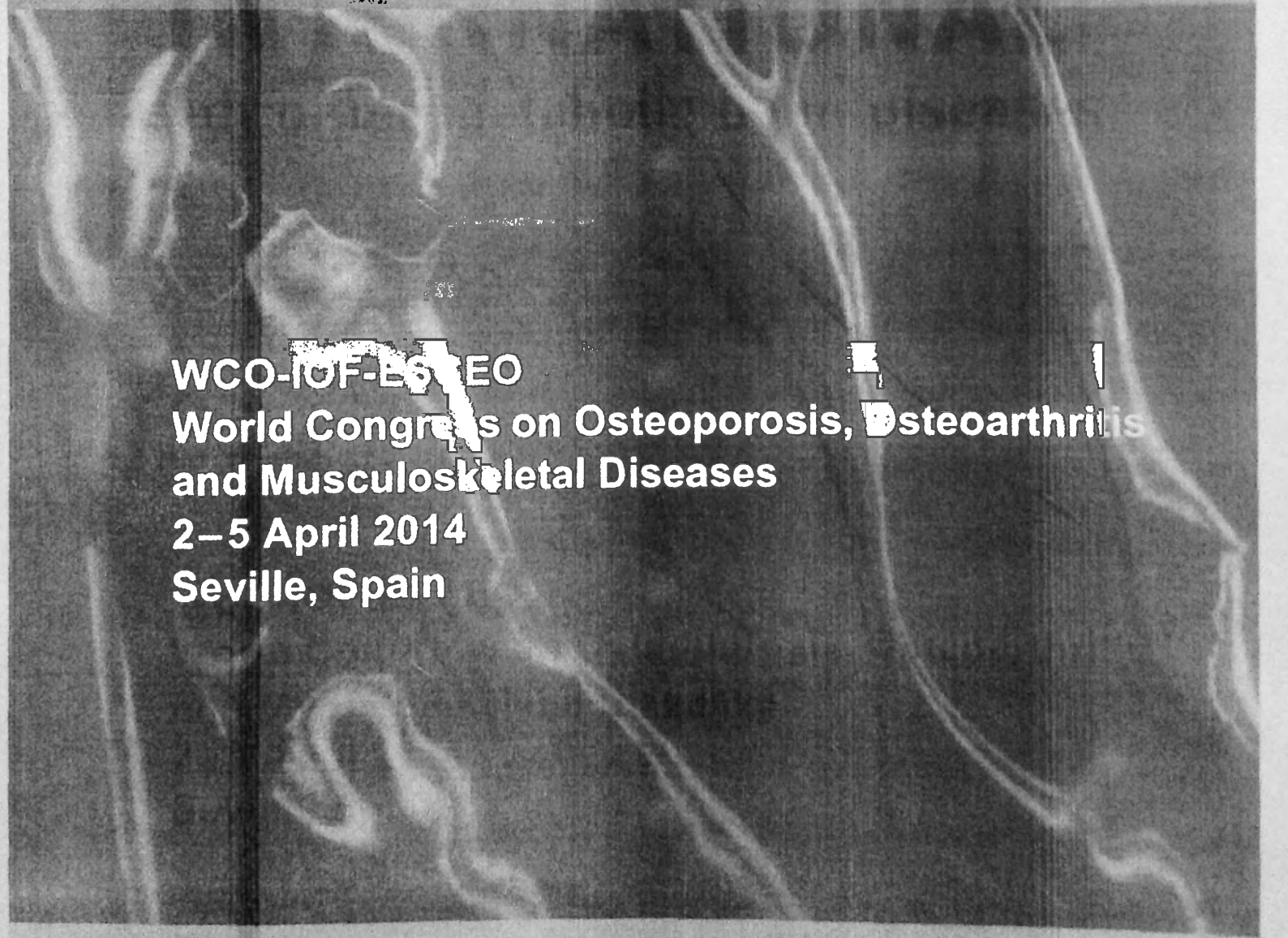
VOLUME 25 SUPPLEMENT 2 APRIL 2014

OSTEOPOROSIS INTERNATIONAL

with other metabolic bone diseases

EDITORS-IN-CHIEF JOHN A. KANIS AND R[illegible] INDSAY



WCO-IOF-ESCEO
World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases
2–5 April 2014
Seville, Spain

International Osteoporosis Foundation

Springer

mice overexpressing human RANKL (TghuRANKL) in order to model human RANKL-mediated pathologies.
Material and Methods: To achieve a correct pattern of human RANKL expression in the mouse, a 200 kb genomic fragment containing the whole human RANKL gene was used as a transgene.
Results: TghuRANKL mice of both sexes developed early-onset bone loss and the levels of huRANKL expression were correlated with disease severity. Low copy Tg5516 mice expressing huRANKL at low levels displayed a mild osteoporotic phenotype as shown by trabecular bone loss and reduced biomechanical properties. Overexpression of huRANKL, in the medium copy Tg5519 line, resulted in severe early-onset osteoporosis characterized by lack of trabecular bone, destruction of the growth plate, increased osteoclastogenesis, bone marrow adiposity, increased bone remodeling and severe cortical bone porosity accompanied by decreased bone strength. Notably, TghuRANKL mice rescued the osteopetrotic phenotype of mutant mice expressing an inactive form of endogenous RANKL, showing that the human RANKL protein is fully active in the mouse. Interestingly, treatment of TghuRANKL mice with known antiresorptive drugs effectively inhibited bone resorption proving the significance of such mice in preclinical evaluation studies of novel antiosteoporotic compounds.
Conclusion: These novel human RANKL transgenic models of osteoporosis represent a unique tool for understanding the pathogenic mechanisms in bone resorption as well as for the preclinical evaluation of novel inhibitors that target human RANKL and osteoclasts.
References: Rinotas V et al. J Bone Miner Res 2013;doi:10.1002/jbmr.2112.

P597
STRONTIUM RANELATE IMPROVED BONE HEALING IN PATIENT WITH RHEUMATOID ARTHRITIS AND FRACTURE OF TIBIA: A CASE REPORT

T. M. T. Mai[1]
[1]E Hospital, Hanoi, Viet Nam

Objective: Evaluation improve bone healing of strontium ranelate in the patient rheumatoid arthritis and fracture of tibia.
Material and Methods: A female patient, 50 years old, 30 years of rheumatoid arthritis and fractured tibia (right). X-ray the leg bone (right), before and after treatment with strontium ranelate 2 g/day, patients treated for 18 consecutive months.
Results: After 18 months of treatment strontium ranelate patients and improve patient advocacy will be strengthened.
Conclusion: Strontium ranelate may be improve bone healing in patients with rheumatoid arthritis and fracture of tibia.

P598
BONE MINERAL DENSITY IN DIABETIC PATIENTS WITH CHRONIC KIDNEY DISEASE

O. Vasilkova[1], K. Zekenova[2], M. Zshmailik[2], T. Mokhort[3]
[1]Department of Endocrinology, Gomel State Medical University, Gomel, Belarus, [2]Department of Endocrinology, Republican Research Center for Radiation and Human Ecology, Gomel, Belarus, [3]Department of Endocrinology, Belarusian State Medical University, Minsk, Belarus

Objective: Epidemiological studies indicate that many patients with osteoporosis are characterized by diminished glomerular filtration rate (GFR), which indicates various degrees of chronic kidney disease (CKD). This study evaluated BMD in diabetic patients with early stages of CKD.
Material and Methods: A total of 59 (26 male and 33 female) adult cases with diabetes type 2 and 16 control subjects were enrolled for our study. BMD, serum creatinine and other measures were obtained. GFR was estimated using the Cockcroft-Gault formula, with adjustment for body surface area. BMD was measured by DXA at the lumbar spine and the proximal femur.
Results: The prevalence of T-scores≤−2.5 SD in the group of patients over 50 years was 15.2 % in females and 12.5 % in males. We found a reduction of BMD in comparison with gender- and age-matched normal population values at the total hip (Z-score=−0.27±1.11) and the femoral neck (T-score=−0.23±1.12). After adjustment for all variables, multiple regression analysis showed that BMD in the total femur and lumbar spine were positively associated with eGFR in both males and females.
Conclusion: Our preliminary data showed that diabetic patients with early stages of CKD may be at higher risk of osteoporosis. However, larger prospective cohort studies are needed to confirm the etiologic importance of reduced GFR and bone density.

P599
PREVALENCE OF OSTEOPOROSIS AND HIP FRACTURES IN FEMALE-PATIENTS WITH SYSTEMIC SCLEROSIS AND RHEUMATOID ARTHRITIS

C. Criveanu[1], F. A. Vreju[1], I. Cojocaru-Gofita[1], M. Florea[1], A. L. Barbulescu[1], A. Rosu[1], P. Ciurea[1]
[1]Department of Rheumatology, University of Medicine and Pharmacy of Craiova, Craiova, Romania

Objective: To analyse the results of bone densitometry and to evaluate the related-fractures in systemic sclerosis (SSc) in comparison to age in female-patients with rheumatoid arthritis (RA).