

Thursday, February 17, 2005 ■ 3:20 p.m. ■ Imperial Ballroom

**Best Abstract – Clinician**

- 17 *Raymond E. Cole, DO,CCD*  
CLINICAL EFFECT OF MEASUREMENT OF THE  
CONTRALATERAL HIP IF THE SPINE IS NOT  
SUITABLE FOR ANALYSIS

**Best Abstract – Technologist**

- 7 *Nellie Vallarta-Ast, RT(R), CDT (presented by Diane Krueger, RT, CDT)*  
CHARACTERISTICS OF MEN WITH VFA-DETECTED  
FRACTURES

**Oral Presentations**

**Abstracts**



**Title:** 17 – CLINICAL EFFECT OF MEASUREMENT OF THE CONTRALATERAL HIP IF THE SPINE IS NOT SUITABLE FOR ANALYSIS

**Authors:** *Raymond E. Cole, D.O.,C.C.D.* Clinical Assistant Professor of Medicine in the De; Jacob Larson, Graduate Student, School of Public Health, University of Michigan, Ann Arbor, Michigan

When the vertebrae are not suitable for inclusion in a DXA BMD study due to artifact such as osteophytes, osteochondrosis, facet sclerosis, vertebral fractures, etc. to what extent does measurement of the contralateral hip improve osteoporosis diagnosis and treatment? **METHOD:** To answer this question dual femur results from 537 women (mean age 61.2 years; SD 10.5, range 32 to 90 years) were evaluated to determine if measurement of the contralateral hip significantly altered clinical diagnosis and treatment. **RESULTS:** The average T-score difference between the right/left hips was: 0.29 SD. There was no relation to hand dominance. The left hip T-score was lower than the right 42.5% of the time. The right hip T-score was lower than the left 57.5 % of the time. A total of 21.2% of patients changed diagnosis or treatment classification when the contralateral hip was considered. When the left hip was scanned and then the right contralateral hip scanned, there was a diagnosis or treatment change 12.2% of the time. When the right hip was scanned and then the left contralateral hip scanned, there was a diagnosis or treatment change 9% of the time. **CONCLUSION:** Bilateral hip scanning significantly improves osteoporosis diagnosis and treatment classification when the vertebrae cannot be included in a BMD study due to artifactual interference. If only one hip is scanned, the right is preferred.

**Title:** 7 – CHARACTERISTICS OF MEN WITH VFA-DETECTED FRACTURES

**Authors:** *Nellie Vallarta-Ast, RT(R), CDT;* William S. Middleton Memorial Veterans Hospital, Diane Krueger, University of Wisconsin Osteoporosis Clinical Research Center; Neil Binkley, University of Wisconsin Osteoporosis Clinical Research Center

Densitometric vertebral fracture assessment (VFA) technology is useful in men. However, a substantial minority of men with VFA identified fractures have normal BMD. This report depicts characteristics of such a group. The study population was selected from 361 male veterans referred for routine clinical bone mass measurement at the Middleton VAMC. Of these men, 25 were identified who had grade 2 or 3 vertebral compression fractures using the Genant VSQ system but normal BMD at all three sites routinely imaged (L1-4 spine, proximal femur and mid-radius). Based upon history obtained by the DXA technologist, these men were divided into three groups; prior low-trauma fracture (12), prior high-trauma fracture (5) and no known prior fracture (8). Of the men without a history of high-trauma fracture, 80% (16/20) had historical risk factors contributing to skeletal fragility or a history of fracture with falling. The most common fracture risk factor was chronic corticosteroid use (6/16) followed by other medications or toxins associated with bone loss (e.g., heparin, chemotherapeutics, alcohol abuse or anti-epileptics) in 5/16. An additional 5/16 were frequent fallers. Other noteworthy historical conditions included ulcerative colitis, hyperparathyroidism and hypovitaminosis D. In only 4 of 20 were no fracture risk factor identified by history. In conclusion, medical history detects fracture risk factors in the vast majority of men with VFA-identified fractures. The high prevalence of secondary causes of bone loss suggests that a metabolic bone disease evaluation may be prudent in men with VFA demonstrated fractures and no history of high trauma fracture, even when the BMD is normal.

