Osteoporosis

AB0606 IMPACT OF ABDOMINAL AORTIC CALCIFICATION AND SERUM CREATININE-TO-CYSTATIN C RATIO TO BONE FRAILTY FRACTURE

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Background: Relationship between bone fragility fracture (BFF) and abdominal aortic calcification (AAC) has been discussed in recent decade.

Objectives: Now we investigated the relationship between the two and a new factor of BFF: serum creatinine-to-cystatin C ratio (Cr/CysC).

Methods: A total of nine-hundred and thirty one osteoporotic patients were recruited. Diagnosis of osteoporosis was indexed by the criteria of Japanese Primary Osteoporosis Diagnostic Criteria. Patient's lumbar spine X-ray pictures were taken and dual-energy X-ray absorptiometry (DXA) of lumbar spine and hip joint were tested at the same time, and all of them were followed us for more than one year up to nine years with at least an administration of vitamin D. Anti-osteoporotic drugs were administered for 660 patients.

Ventral compression fracture (VF) and AAC were evaluated with lateral view of X-ray picture. VF was classified in accordance with Semi-quantified method (SQ) and AAC was classified as follows: Grade0: No calcification, Grade1: Partial calcification not continued over one vertebral height, Grade2: Calcification continuous over one vertebral height. BFF history of the patients except of VF was harvested from the medical record and with interview. Patients' background factors that have a possible relationship with occurrence of BFF were measured and Cr/CysC was calculated as well. Prevalence of BFF at the baseline for each grade with SQ was compared according to the grade of AAC. Background factors including bone mineral densities (BMD) of the lumbar spine and hip joint measured using DXA were compared for each AAC grade.

Conclusion: These data suggest that CSA helps predict the risk of fracture in patients with PMR.

REFERENCES: