Results: 251 subjects with diabetes (age 74.5 ± 7.9 years, 81.7% female) and 502 age- and gender- matched control (age 74.5 ± 7.8 years, 81.7% female) were included in this report. Comparing to non-DM control, DM patients had higher BMI (23.5 ± 3.8 vs. 22.5 ± 3.6 kg/m², P < 0.001), fasting glucose (7.20 ± 2.37 vs. 5.28 ± 0.72 mmol/L, p < 0.001) and a higher BMD at spine (0.783 ± 0.179 vs. 0.716 ± 0.155 g/cm², p < 0.001) and at neck of femur (0.539 ± 0.123 vs. 0.516 ± 0.118 g/cm², p = 0.018). The parathyroid hormone levels of the two groups were comparable. There was no difference in history of fall observed in the two groups (57.7% vs. 49.3%, p = 0.283). Fewer subjects in the DM group experienced back pain (45.9% vs. 55.8%, p = 0.011) and their daily calcium intake were significantly lower than the non-DM control subjects (545.09 (interquartile range (IQR): 202.25-887.93) vs. 600.00 (IQR: 202.25-887.93) mg/day, p = 0.035).

Conclusion(s): For subjects with low bone mass, those with diabetes present with fracture despite having a higher BMD. They have a lower dietary calcium intake which may reflect a deficiency in the general knowledge on bone health. As they are less likely to suffer from low back pain, their awareness and alertness to the risk of fracture may even be lower. Hence, subjects with diabetes should be reminded to have adequate dietary calcium during their diabetes dietary education sessions. In addition, fracture risk assessment, as well as BMD measurement in indicated cases, should also be considered in diabetes complication screening program.

0006
Bone Density in Patients with Cervical Cancer or Endometrial Cancer in comparison with Healthy Control; According to the stages
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Objective: To evaluate the bone mineral density (BMD) in the lumbar spine and femur in postmenopausal women with cervical cancer and endometrial cancer without bone metastasis in comparison with that in healthy control postmenopausal women, and to assess the loss of BMD according to the cancer stage.

Materials and methods: We analyzed the BMD of the lumbar spine and femur using dual-energy X-ray absorptiometry (DXA) in 218 patients with cervical cancer, 85 patients with endometrial cancer, and 259 healthy controls. The serum levels of calcium (Ca), phosphorus (P), osteocalcin (OSC), and total alkaline phosphatase (ALP), and urine deoxypyridinoline (DPL) were measured in all participants.

Results: Age, body mass index, parity, and time since menopause were not significantly different between the three groups. Serum Ca level was higher in the cervical cancer group (p = 0.000), however, urine DPL was lower in endometrial cancer group (p = 0.000). The T-scores of basal BMD at the second and fourth lumbar vertebra (L2, L4) were significantly lower in patients with cervical cancer (p = 0.038, 0.000, respectively) compared to those in the healthy control groups. Additionally, the incidence of osteoporosis and osteopenia basal status of bone mass was significantly higher in patients with cervical cancer compared to that in controls (0.4%). Urine deoxypyridinoline levels were significantly higher in patients with cervical cancer compared to those in controls. No differences in basal BMD of the lumbar spine and femur were observed between patients with endometrial cancer and controls, and no significant differences in biochemical markers were detected between patients with endometrial cancer and controls.

Conclusion: Our results suggest that postmenopausal women with cervical cancer have a lower BMD and are at increased risk of osteoporosis in the lumbar spine before receiving anticancer treatment compared with postmenopausal women with endometrial cancer.

0010
The Effect of Femur Neck BMD on the Discriminative characteristics of FRAX Model of 3 East Asian Countries in Korean Elderly Female Patient
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Objectives: There are ongoing concern about the effect of femur neck BMD on the discrimination of risk for osteoporotic fracture using FRAX® algorithm, especially in elderly population. In this retrospective study, using Korean female patients over 70-year, the effect of existence of femur neck BMD data on discriminative characteristics of fracture probability of different FRAX model of east Asian countries (Korea, Japan and China) which have similar ethnicity was assessed.

Methods: The probability for major and hip osteoporotic fracture in one hundred seven Korean female patients over 70-year (avr. 78.0 ± 5.0) which were calculated using FRAX model of 3 countries were analyses depending on the existence of femur neck BMD data.

Results: Regardless of femur neck BMD data, the calculated probability for major and hip osteoporotic fracture using Japan FRAX was significant higher than those of Korean and China FRAX (p < 0.05) And there were no significant difference of all fracture risk calculated by Japan FRAX between those with and without femur neck BMD data.