

fracture (adjusted relative risk, 2.88; 95% CI, 1.15–7.24). Those who had taken both oral route and injection of corticosteroids had 4.47-fold higher risk (95% CI, 1.39–14.37) than those who hadn't used corticosteroids.

Discussion – This study suggests that the use of corticosteroids might be a risk factor for proximal femur fracture in Korean elderly women.

[OF-2] [ 10/18/2002 (Fri) 17:20 – 17:30 / Hall B ]

### Incidence level of abnormality in creatine phosphokinase by statin

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#### Background

Creatine phosphokinase (CPK) was a marker in diagnosis of rhabdomyolysis. The CPK abnormality could be induced by intake of HMG CoA reductase inhibitors (statins).

#### Objectives

The objective of this study was to estimate the incidence rate of CPK abnormality by each statin.

#### Methods

Information on patients prescribed statins was collected from Seoul National University Hospital (SNUH) and Yonsei Medical Center Severance Hospital (YMC) between June, 1999 and August, 2001. Patients were categorized into three groups by serum CPK level: normal (SNUH: 55–170U/L, YMC: 44–245U/L(male) 32–135U/L(female)), slightly increased (Upper normal limit[UNL]–500U/L), highly increased ( $\geq$ 500U/L). The cases with CPK abnormality before statin prescription were excluded. The cases with MI and stroke at the time of CPK measurement were also excluded. The incidence level was estimated as incidence density and 95% confidence interval (CI).

#### Results

Five statins including atorvastatin, cerivastatin, lovastatin, pravastatin, and simvastatin were used in SNUH. Four statins except cerivastatin were used in YMC. The number of patients prescribed statins was 13,547. Among them, 1,052 patients were received CPK exam. The number of cases with abnormality in CPK after intake of statins was 79. Patients with slightly increased CPK level (UNL–500U/L) were 59 cases and patients with highly increased CPK level ( $\geq$ 500U/L) were 20 cases. There was no trend of incidence level in CPK abnormality by age. Incidence density was not different between male and female. Incidence density of slightly increased CPK was 5.8 per 1,000 person-months (95% CI: 4.3–7.3): atorvastatin 11.6 (0–34.3), cerivastatin 43.5 (0–128.3), lovastatin 4.7 (2.8–6.6), pravastatin 1.6 (0.2–3.0), simvastatin 11.8 (7.8–15.8). Incidence density of highly increased CPK was 1.9 per 1,000 person-months (95% CI: 1.1–2.7): lovastatin 1.6 (0.5–2.7), pravastatin 0.3 (0–88.8), simvastatin 5.0 (2.4–7.6).

#### Discussion

Cerivastatin showed higher incidence level in slightly increased CPK. Simvastatin showed higher incidence level in highly increased CPK. But, there was no statistical significance in the level of CPK abnormality among statins due to small sample size.