骨粗鬆症予防のための日常活動量に関する研究

東京工業大学 北 川 淳 (共同研究者) 同 中 原 凱 文

Effect of Daily Activity on Prevention of Osteoporosis

by

Jun Kitagawa, Yoshibumi Nakahara Graduate School of Decision Science and Technology, Tokyo Institute of Technology

ABSTRACT

We examined the age-related changes in walking steps in daily lives, calciotropic hormones and nutritional status in female elderly, and evaluated daily activity to prevent osteoporosis. Subjects were 16 healthy residents of an old people's home aged 68 to 83 years.

The results obtained were as follows:

- 1) There was a significant decrease in walking steps with age, but calciotropic hormones and nutritional status did not show age-related changes.
- 2) There were no relations between deoxypyridinoline (D-Pyr) as marker of bone resorption and both walking steps and nutritional status.
- 3) In subjects who did not intake adequate nutrients to the high activity, the level of D-Pyr was increased.

These results indicate that too much daily activity seems to lead higher bone resorption in the elderly. Therefore, moderate exercise and maintaing a well-nourished status should be considered as impotant factors to prevent osteoporosis.