

# Lumbar Disc Degeneration and Back Pain in Thai Elderly: A Population-Based Study

Chaiwanichsiri D, MD<sup>1</sup>, Jiamworakul A, MD<sup>2</sup>, Jitapunkul S, MD<sup>3</sup>

**Objective:** To determine the prevalence and related factors of lumbar disc degeneration in Thai elderly.

**Methods:** A population-based study was done at Rom Klao community, Bangkok, as a part of CERB project held by the Department of Medicine, Faculty of Medicine, Chulalongkorn University in 1997. Eight hundred out of 1,166 elderly aged  $\geq 50$  were assessed and took lateral spinal radiographs. The results were interpreted as spondylosis grade 0-3 according to the degree of severity. After exclusion of the cases from fracture and tumor, 792 cases were analyzed.

**Results:** There were 306 males (38.6%), and 486 females (61.4%) with the mean age of  $61.07 \pm 7.8$  years. The mean BMI was  $23.6 \text{ kg/m}^2$  in males and  $26.0 \text{ kg/m}^2$  in females. The mean Barthel ADL index (BAI) was  $18.1 \pm 1.2$ . The prevalence of spondylosis and spinal listhesis increased with age ( $p = 0.00$ ). Males had more prevalence of grade 2-3 spondylosis than females (58.8% vs. 52.9%). But the prevalence of spinal listhesis was higher in females (14.4% vs. 8.8%;  $p = 0.029$ ). The most common listhesis level in males was L5 over S1 (63%); in females were L4 over L5, and L5 over S1 (~ 40% both sites). About 55% of the cases reported LBP within 6 months. Those with moderate – severe pain had lower BAI ( $p = 0.018$ ), and were associated with grade 2-3 spondylosis ( $p = 0.046$ ), spinal listhesis ( $p = 0.013$ ), and female gender ( $p = 0.000$ ).

**Conclusion:** Lumbar disc degeneration and LBP were highly prevalent among the Thai elderly. The impacts on their quality of life need proper health care for disabilities prevention.

---

<sup>1</sup> Department of Rehabilitation Medicine, Faculty of Medicine, Chulalongkorn University

<sup>2</sup> Thai Red Cross Rehabilitation Center, the Thai Red Cross Society

<sup>3</sup> Department of Medicine, Faculty of Medicine, Chulalongkorn University