Editorial Note

Minimally Invasive Surgery for Vertebral Fracture and Spinal Infection

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Vertebral osteoporotic compression fractures and infectious spondylodiscitis are two major problems in the field of spinal medicine, because of their high incidence as well as their direct effects on health-related quality of life and health care expenditures.[1,2] The mainstay of management for symptomatic vertebral compression fractures consists of bed rest, brace protection, and rehabilitation.[2] For infectious spondylodiscitis, targeted antibiotics treatment[1] often becomes mandatory. Surgical intervention is usually reserved for cases that are unresponsive to medication or developing progressive spinal deformity, instability, or significant neurological impairment.

However, the incidence of peri-operative morbidity remains high with conventional surgical approach due to poor quality of osteoporotic bone and suboptimal general condition of the patients. Minimally invasive surgery, therefore, has been developed to circumvent the shortcomings of conventional surgery in treating those two disease entities.[3]

In this special section titled "Minimally Invasive Surgery for Vertebral Fracture and Spinal Infection," three related articles are grouped to reflect the current advance in surgical treatment of osteoporotic vertebral compression fracture and infectious spondylodiscitis. Hsieh *et al*., conducted an evidence-based review and meta-analysis comparing clinical and radiographic outcomes of balloon kyphoplasty versus vertebroplasty and concluded that the former has a lower cement leakage rate and a lower incidence of new adjacent fractures.[4] Lai *et al*., describe the chemistry and physical properties of bone cement,[5] and the effects of the setting time, polymerization temperature, and compressive strength of the cement in detail. Fu *et al*., delineate the indications and therapeutic values of percutaneous endoscopic discectomy and drainage in treating patients with spondylodiscitis.[6]

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