



### HIP Fracture Evaluation

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#### Editorial

In an aging society with an increase in average life expectancy, abnormal posture with body balance disorder is a serious issue because it results in the reduction of activities of daily living and health-related quality of life. In this issue, investigators discuss preoperative optimization, intraoperative surgical technique, discharge planning, and management of postoperative complications in hip fracture patients. By offering guidance to surgeons throughout the entire episode of care, from hospital admission to follow-up, we hope to provide a broad-based overview of hip fracture evaluation and management.

Hip fracture incidence is over 250,000 per year in United States and is expected to grow to 850,000 by year 2040. Severity of hip fracture is underscored by mortality rate of 20-30% in year following injury. Most hip fractures occur in those older than 50, a demographic in which there is higher prevalence of comorbidities. As result, minimizing perioperative adverse events while maximizing postoperative function and reoperation-free survival is essential in hip fracture patient. It aim not only seek to optimize quality of care in large patient population, but also control cost as hip fractures comprise the majority of

orthopedics trauma-associated health care expenditures. Sub-trochanteric femur fractures pose clinical challenge, not only due to technical difficulty of reduction and fixation, but also the high rate of nonunion.

Degenerative change of hip and lumbar spine is interrelated. It classified into 4 types: simple, complex, secondary, and misdiagnosed. Deformity of spine or hip and following compensation mechanisms of each other has been investigated. Consequently, spinal surgery is able to reduce low back pain and abnormal posture directly; however, total hip replacement may also have the potential to repair hip disorders and improve posture. Effect on corrected alignment following each procedure on posture in older people remains debatable. At least, knee OA is known to affect spinal alignment therefore knee treatments can improve posture as well.

Pelvis is known as main regulator of chain of correlation between the spine and lower extremities. Relationship among spine, pelvis, and hip joint for treatment of hip-spine syndrome needs further investigations. Feet act as fulcrum, connecting to lower extremities, pelvis, and spine, and head moves like a pendulum. Body balance and posture resemble an inverted pendulum, and degeneration of these parts could affect the posture. All these portions should be ultimately considered for the treatment of abnormal posture together although it is an extremely confusing issue. With this background, in this special issue, we would like to focus on principle of abnormal posture as well as management of mal alignment and optimal alignment of spine and lower extremities.