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EDITORIAL

Osteoporotic hip fractures: Controversial issues and current solutions

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Hip fractures constitute the majority of fractures due to osteoporosis and sarcopenia with the ageing population.[1] Nondisplaced femoral neck fractures (FNFs) are the most common form of hip fractures and mostly treated by internal fixation with cannulated compression screws in the clinical practice.[1] However, multiple compression screws may cause osteonecrosis of the femoral head which is regarded as one of the severe complications after surgery for FNFs.[1]

A previous study showed that low hemoglobin, albumin, lymphocyte, and platelet (HALP) score was associated with six-month mortality in this patient group undergoing hemiarthroplasty (HA) for FNFs.[2]

Total hip arthroplasty (THA) and HA are common surgical procedures for displaced FNF (DFNF) in elderly patients; however, optimal treatment options still remain controversial.[3] Total hip arthroplasty and HA demonstrated comparable effectiveness and outcomes in patients with DFNFs and sarcopenia. The latter was a less invasive and more cost-effective surgical option, making it the preferred choice.[3]

There is increasing evidence that supports the use of THA in active elderly patients with DFNFs who are medically fit, have outdoor unassisted activity levels, and have no cognitive impairment, to achieve better functional outcomes and patient's satisfaction.[4] Another less-reported reason that supports the THA option is the potential occurrence of acetabular wear/erosion after HA.[4] Hip erosion and subsequent conversion to THA do occur in a relatively small number of patients older than 65 years and patients who are younger than 65, HA is a rare solution.[4]

Currently, with the continuous and rapid increase in the aging population, the number of hip fracture patients is also rising, of which 75% are intertrochanteric fractures.[5] In a systematic review and meta-analysis, the proximal femoral bionic nail (PFBN) group experienced shorter fracture healing times compared to the proximal femoral nail antirotation (PFNA) group. This is likely due to superior mechanical stability of the PFBN.[5] The strong mechanical stability of PFBN allows patients to begin early weight-bearing, with mechanical stimulation promoting new bone formation at the fracture site. In addition, the final HHS scores in the PFBN group were superior to those in the PFNA group.[5]

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