Osteoporosis outcome

Osteoporosis is a common skeletal pathology that affects systemic cortical bone maintenance and remodeling. This disease accelerates the degeneration of the spine, often necessitating spinal surgery for progressive vertebral deformity, pathologic fracture, bony canal stenosis, and/or neural element decompression.

Osteoporosis is a significant risk factor for instrumentation failure and need for revision surgery following arthrodesis for scoliosis correction. Furthermore, patients with osteoporosis have a significantly higher risk of intraoperative blood volume loss and postoperative thromboembolic events [1].

Osteoporosis may predispose to vertebral compression fractures which occur in 30–50% of patients on prolonged glucocorticoids. Steroid-induced bone loss may be reversed with cyclical administration of etidronate [2] in 4 cycles of 400 mg/d ✖ 14 days followed by 76 days of oral calcium supplements of 500 mg/d (not proven to a reduced rate of VB fractures).

Consequences of osteoporosis generally include vertebral, hip, wrist, and ankle fractures [3].

Osteoporosis and related complications like pain, incapacitated motility, spinal deformity, sleep disorders, psychiatric problems, and pulmonary complications have an unfavorable influence on public health [4].

In addition, osteoporosis may contribute to high rates of fracture and instrumentation failure after long posterior spinal fusions, resulting in proximal junctional kyphosis and recurrent spinal deformity. As increasing numbers of elderly patients present for surgical intervention for degenerative and traumatic spinal pathologies, current and future generations of spine surgeons will increasingly be faced with the challenge of obtaining adequate fixation in osteoporotic bone [5].

see osteoporotic vertebral fracture.

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