Review of Osteoporotic Vertebral Compression Fractures

In this article, orthopedic surgeons from the New York University/Hospital for Joint Diseases present a review of osteoporosis. They outline who is most likely affected. They also discuss how to diagnose the problem, and how to treat the condition. In addition, ways to prevent osteoporosis are presented.

Osteoporosis is defined as low bone mass. It leads to a break down of the bone and bone fragility. Compression leads to fractures of the vertebral bones. Vertebral compression fractures are very common for older adults with osteoporosis. The cost and the long-term disability caused by compression fractures require a closer look.

There are many risk factors for osteoporosis. White, postmenopausal women have the highest risk. Aging is another key risk factor for both men and women. Poor diet, smoking, chronic and alcohol use are also risk factors. A lack of the right kind of exercise (weight-bearing) adds to the risk.

Osteoporosis can be prevented by changing lifestyle factors. Quitting smoking, getting more exercise, and good nutrition top the to do list. Once a vertebral compression fracture occurs as a result of osteoporosis, the focus changes from prevention to treatment.

Nonoperative care with medications and Physical Therapy help up to 80 per cent of the patients. Hospitalization with bed rest and intravenous (IV) pain medication may be needed. In a small number of people, surgery to restore the bone that's been compressed and fractured is the only choice.

If the bone is strong enough, screws can be put in place to help fuse the spine. Sometimes cement is injected into the vertebral body. This procedure is called a vertebroplasty. A more involved procedure is a kyphoplasty.

In a kyphoplasty, a deflated balloon is inserted inside the vertebral bone and inflated. Then the cement is injected into the newly formed cavity inside the body of the vertebra. There are some potential problems with either of these operations. The cement can seep out of the bone. Or the bone at the next level can break next.

The prevention and treatment of osteoporosis hasn't been perfected. But osteoporosis is on the rise as our adult population lives longer and longer. The authors say the cost of treating fractures from osteoporosis could be enough to bankrupt the health care industry. More study is needed to prevent osteoporosis and to decrease the cost of caring for people who have osteoporosis.