



Vertebral augmentation



1. Vertebral fracture



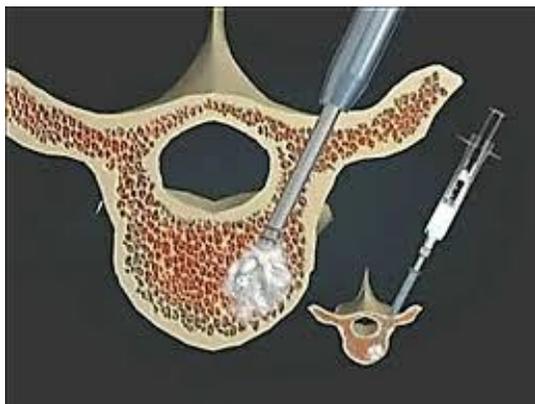
2. Insertion of expandable device under image guidance



3. Balloon expanded



4. Cement injected into space created



Vertebral Augmentation- Kyphoplasty

The bone in between the discs, the vertebral body, can fracture due to trauma or osteoporosis. This is known as a compression fracture and it can become inflamed and cause pain like any other fracture of bone. For this pain, a kyphoplasty is a procedure that can both improve the structure by restoring height with a balloon and placing cement in the bone and also improve the pain due to bone swelling/edema.

STEP 1

A small area of skin is numbed with a local anesthetic. A small incision is then made.

STEP 2

Guided by fluoroscopy (x-ray), a large needle is placed into the back of the spine in a place called the pedicle and brought down to the broken vertebral body. The inner part of the needle is then removed and a balloon can then be placed and blown up with saline to restore height lost due to the fracture.

STEP 3

Once the balloon is removed, a special type of cement can be placed in the bone to hold the height restored by the balloon in place. This cement hardens within seconds and can provide relief immediately in some cases. The outer part of the needle is then removed and the skin is closed with skin glue.

END OF PROCEDURE

Pain may disappear immediately after a successful kyphoplasty. However, once the numbing effect of the anesthetic wears off, pain can occur due to the incision and can take 10-14 days to fully alleviate pain. The effects of the procedure can last years and be very helpful with patient function.