They were initially developed for tumoral and osteoporotic lesions; indications were later extended to traumatology for the treatment of pure compression fracture. They are an interesting alternative to conventional procedures, which are often very demanding. The benefit of these minimally invasive techniques has been demonstrated in terms of alleviation of pain, functional improvement and reduction in both morbidity and costs for society.

While evidence supports the efficacy of vertebral augmentation (kyphoplasty and vertebroplasty) for the treatment of osteoporotic fractures, randomized trials disputed the value of vertebroplasty.

The prerequisites for the success of all augmentation methods include the earliest possible surgical intervention, optimal technical equipment and an experienced, interdisciplinary team, as well as thorough consideration of the situation of the individual patient.

Percutaneous vertebral augmentation procedures such as vertebroplasty and kyphoplasty are often performed in cancer patients to relieve mechanical axial-load pain due to pathological collapse deformities.