

FACT SHEET: VCF TREATMENT CHALLENGES

The current standard of care for VCFs is bed rest, pain medications and back braces. Medical management is designed to help manage the pain caused by VCFs, but does not correct the spinal deformity. Interestingly, bed rest may help to further accelerate bone loss, which is the very problem that causes many VCFs. When confronted with treating VCFs, conventional surgery methods (spinal instrumentation) are not typically used for these reasons:

- Generally, conventional surgical methods to correct the spinal deformity are too invasive for a geriatric population.
- Osteoporotic bone is very soft and weak making the conventional method difficult to apply.

VCFs are one of the only fractures not traditionally treated in an orthopedic manner with reduction and fixation (except in rare cases of neurological damage). Treatment objectives for other fractured bones include¹:

- Restore anatomical relationships through fracture reduction and fixation
- Produce optimal outcomes with early diagnosis and treatment
- Take special care to accommodate the frail physical status and co-morbidities of geriatric patients

Fracture reduction is one of the standard orthopedic goals when treating a broken bone. The definition of “reduction” as written in Stedman’s Medical Dictionary is:

- Reduction: repositioning; the restoration by surgical and manipulative procedures, of a part to its normal anatomical relation.²

The 4 AO principles³ (Arbeitsgemeinschaft Osteosynthesefragen. English translation: Association for the Study of Internal Fixation):

- Fracture reduction and fixation to restore anatomical relationships
- Stability by fixation or splintage, as the nature of the fracture and the injury requires.
- Preservation of blood supply to soft tissues and bone by careful handling and gentle reduction techniques.
- Early and safe mobilization of the part and the patient.

¹ Brakoniecki, *Anesthetic Management of the Trauma Patient with Skeletal Injuries*, Skeletal Trauma, W.B. Saunders Company, 1998, 1:7:171-172.

² *Stedman’s Concise Medical Dictionary for the Health Professions*. Williams & Wilkins, Maryland, 1997.

³ Ruedi & Murphy, *AO Principles of Fracture Management*, Thieme, Stuttgart, New York, 2000