

OSTEOANABOLIC TREATMENT AFTER MULTIPLE PROXIMAL HUMERAL FRACTURES AND VERTEBRAL FRACTURES IN POSTMENOPAUSAL WOMAN

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Background

Osteoporosis is a silent condition until a fracture occurs. Once vertebral and non-vertebral fracture are sustained, the risk of subsequent fracture increases. Our 69-year-old female presented with a frailty fractures cascade after several low-energy falls. She was diagnosed with diabetes mellitus and sarcopenia. Serious height decline and lumbar pain represented red flags which referred her to DEXA. Osteoanabolic treatment should be taken into consideration for high-risk patients.

Case report

Her total lumbar T-score of -1.5 SD was misrepresentative because of degenerative changes and vertebral compressive fracture. Genant II anteriorly wedge-shaped L1 was revealed. Shortly a right proximal humeral fracture (PHF) occurred. Due to incomppliance, she refused to be treated with antiresorptive therapy prescribed by a physiatrist. Three years later due to a low-impact fall, she sustained an acute L4 fracture and X-ray findings revealed a prior Genant III L3 fracture too. She was treated with calcium and 25(OH)D daily supplementation whom was faithfully compliant with. At this point, the opportunity to be treated by osteoanabolic was missed, because of irregular physiatrist visits due to her concern of fracture restoration. Again the same year a refracture of the left PH occurred. Three months later she fell again and sustained left multi-fragmentary PHF with screw dislocation, instability, and a gap between the plate and diaphysis. Recent DEXA showed false negative readings in the lumbar region due to vertebral compressive fractures (total T score -0.8 SD), and total hip T score -3.2 SD. Range of motion and load exercises were introduced for six months to the point when suboptimal range of motion was obtained.

Conclusion

The patient met criteria for teriparatide treatment 20µg/80µL daily subcutaneously for 2 years after prior 25(OH)D and calcium levels optimization. This instructive case report highlights the importance of earlier osteoanabolic treatment to prevent fracture cascade.

Keywords: osteoporosis, frailty fracture cascade, teriparatide