Remarkable Bone Mineral Density Increases in Patients with Glucocorticoid-Induced Osteoporosis and Crohn’s Disease Treated with Teriparatide

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CASE 1 – 33 Year Old Caucasian Male

- Diagnosed with CD at age 16 and initially managed with intermittent high-dose prednisone (15-30 mg daily).
- Not adherent to calcium and vitamin D supplementation.
- At age 27, active CD managed with partial colectomy and ileostomy.
- Post-operative remission of CD, discharged on prednisone 15 mg/day.
- Evaluation for OP at age 33 (6 years later)
- Back pain inadequately managed with narcotics and requiring walker to ambulate.
- Radiograph revealed mild L4 and L1 compression fractures.
- MRI and bone scan revealed additional acute T11 and T12 compression fractures.
- On teriparatide, back pain resolved; no further fractures.

Time (months, post-baseline BMD) OP Treatment CD Treatment Lumbar Spine Z-score Increase from Baseline (%) Weight (kg) **
0 Teriparatide initiated Prednisone 5mg daily 4.2 63.2
11 Teriparatide Aza-thioprine 2.9 23.4 69.2
28 Teriparatide commenced month 24 Zoledronic acid 1.8 42.9 58.8
45 Zoledronic acid 2nd infusion at month 33 Adalimumab 1.6 49.5 57.2
57 Zoledronic acid 3rd infusion at month 57 Adalimumab 1.5 48.2 66

CASE 2 – 31 Year Old Chinese Female

- Diagnosed with CD age 13 and initially managed with ileal resection and right hemicolectomy.
- At age 20, enterocutaneous fistula managed with ileal ileostomy.
- CD managed with intermittent high-dose prednisone (10-30 mg daily).
- At age 25, prolonged amenorrhea, iron deficiency, receiving iron infusions twice monthly for microcytic anemia.
- Chronic gastrointestinal blood loss on celexocib and prednisone (average 15 mg/day).
- At age 27, severe back pain.
- Radiographs of thoracic and lumbar spine revealed L1 (mild) and L2 (mild) compression fractures.
- Supplementing with 1500 mg/day elemental calcium and 1000 IU/day vitamin D.
- On teriparatide, back pain resolved and no further fractures were documented.

Time (months, post-baseline BMD) OP Treatment CD Treatment Lumbar Spine Z-score Increase from Baseline (%) Weight (kg) **
0 Teriparatide initiated month 3 Prednisone 5mg daily 5.2 0 41.4
11 Teriparatide on hold month 11; bowel resection Prednisone 5mg daily 4.2 16.6 41.6
25 Teriparatide re-initiated month 25 Weaned off Prednisone at month 14; Adalimumab initiated 3.1 35.7 48.7
38 Teriparatide Adalimumab 1.4 71.9 58.4

** Holistic DXA, calibrated daily

REFERENCES & DISCLOSURES


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