Improvement of Chronic Back Pain or Failed Back Surgery with Vitamin D Repletion: A Case Series

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KEY POINTS FROM THIS CASE SERIES:

1) This article reviews 6 selected cases of improvement/resolution of chronic back pain or failed back surgery after vitamin D repletion in a Canadian family practice.

2) Chronic low back pain and failed back surgery may improve with repletion of vitamin D from a state of deficiency/insufficiency to sufficiency.

3) Vitamin D insufficiency is common; repletion of vitamin D to normal levels in patients who have chronic low back pain or have had failed back surgery may improve quality of life or, in some cases, result in complete resolution of symptoms.

4) "Back pain is the most common neurological complaint in North America, second only to headache."

5) "Low back pain (LBP) and proximal myopathy are also common symptoms of vitamin D deficiency and osteomalacia."

6) In this report, there were 4 patients who had chronic back pain for more than a year and 2 patients who suffered for more than 3 years from failed back surgery.

7) "Repletion of inadequate vitamin D levels (>80 nmol/L) demonstrated significant improvement or complete resolution of chronic LBP symptoms in these patients."

8) "Vitamin D is required for the differentiation, proliferation, and maturation of cartilage cells and for the production of proteoglycan synthesis in articular chondrocytes."

9) "Patients who have chronic, nonspecific LBP or have had failed back surgery may have an underlying vitamin D insufficiency/deficiency."

10) Risk factors for persistence or recurrence of LBP after surgery include infection, smoking and low vitamin D levels.

11) "All patients had tried various pain treatments, including physiotherapy, visiting a chiropractor, acupuncture, or visit to a pain management clinic, all without much benefit."

12) Physicians should have a high index of suspicion for low vitamin D levels in patients with LBP.

13) "The patients in this study who responded best used between 4000 and 5000 IU of vitamin D3/day."

14) "This case series supports information that has recently become apparent in the literature about vitamin D deficiency and its influence on back pain, muscle pain, and failed back surgery. Doses in the range of 4000 to 5000 IU of vitamin D3/day may be needed for an adequate response."