

RESEARCH NEWS

Denosumab may reduce hypercalcaemia after transplantation for osteopetrosis

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In osteopetrosis, defective osteoclasts impair bone resorption and excessive bone is formed. Haematopoietic stem cell transplantation is the only cure for this rare inherited disorder, but it is often followed by severe hypercalcaemia. A report of two cases, in children 3 and 12 years old, suggests that denosumab can help.

Both children developed hypercalcaemia within 12 days of transplantation, had low serum concentrations of parathyroid hormone, and had calcinosis on kidney ultrasound. Alkaline diuresis and treatment with calcitonin, corticosteroids, and pamidronate failed to improve hypercalcaemia in both patients before denosumab was given a chance. Serum concentrations

of calcium returned to normal in both patients within two days, and normal kidney function followed suit.

The younger patient died of pulmonary hypertension—a known risk of transplantation—a month and a half later. Two years after surgery, the other patient still receives 5 mg of denosumab every four to seven weeks, which continues to normalise serum concentrations of calcium and kidney function.

Denosumab is normally used to treat osteoporosis and bone metastases.

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