Neurological Recovery in Two Patients with Cauda Equina Syndrome Secondary to L5 Lumbar Spine Giant Cell Tumour after Treatment with Denosumab without Surgery

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We report two patients with cauda equina syndrome (CES) secondary to L5 giant cell tumour (GCT) who achieved good neurological recovery after treatment with denosumab without surgery. The first patient was a 26-year-old man with L5 GCT causing CES who regained bowel and urinary control, muscle power improvement from grade 2 to grade 4 and Oswestry disability index (ODI) improvement from 48 to 23 after denosumab treatment. The second patient was a 25-year-old woman with L5 GCT causing CES who regained bowel and urinary control, muscle power improvement from grade 3 to grade 4 and ODI improvement from 42 to 26 after denosumab treatment. The usage of denosumab in the treatment of patients with CES due to GCT allows potential neurological recovery without any surgical intervention. If surgery is contraindicated, more time is obtained to prepare the patient preoperatively to attain safer surgery and to achieve complete tumour clearance.

Keywords: Denosumab; Giant cell tumour; Cauda equina syndrome; Spine; Oncology

Introduction

Giant cell tumours (GCTs) of the spine are rare. The majority of spinal GCTs occur in the sacrum [1]. Patients with GCT of the spine causing neurological compromise can be difficult to manage. Urgent surgery will allow decompression of the neural structures but increase the risk of potential operative complications and inadequate clearance. Delay in surgical intervention may worsen the neurological prognosis. We report two patients presenting with cauda equina syndrome secondary to L5 GCT who achieved good neurological recovery after treatment with denosumab without surgery.

Case Reports

1. Case 1

A 26-year-old man complained of worsening axial low back pain for a month. It was associated with progressive weakness of both ankle and toes for a week before presenting with cauda equina syndrome. Power of the ex-