Pediatric Atlantoaxial Rotatory Subluxation after Minor Trauma and Chiropractic Manipulation

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Rotatory subluxation is a rare entity in atlantoaxial instability and mostly occurs in pediatric patients after minor trauma. These patients are clinically characterized as having torticollis with neck pain. However, clinical physicians should keep in mind the differential diagnosis between benign torticollis resulting from muscle spasms and atlantoaxial rotatory subluxation, because of the different treatment strategies. Herein, we reported a 10-year-old girl with atlantoaxial rotatory subluxation after minor trauma and chiropractic manipulation. The characteristic appearance and diagnostic images are described.

Keywords: atlantoaxial rotatory subluxation, reconstructed computed tomography, magnetic resonance image

INTRODUCTION

Torticollis with neck pain is common in pediatrics with minor trauma¹. Muscle spasms are present, and symptoms can be easily relieved after conservative treatment and prescription of medication. However, as a rare cause of torticollis, atlantoaxial rotatory subluxation may be easily and frequently missed by clinical physicians. Although the prognosis of pediatric patients with atlantoaxial rotatory subluxation is good, a delayed diagnosis and incorrect application of chiropractic manipulation may render the treatment strategy more difficult². Herein, we report atlantoaxial subluxation in a child after minor trauma and chiropractic manipulation, and emphasize the characteristic appearance and diagnostic images.

CASE REPORT

After wrestling with her younger brother, a healthy 10-year-old girl complained of severe neck pain and inability to turn her head 2 weeks before admission. Despite medication and management with conventional chiropractic therapy, includ-