

Introduction

We report a rare case of Grisel's syndrome in a paediatric patient who came to our emergency department.

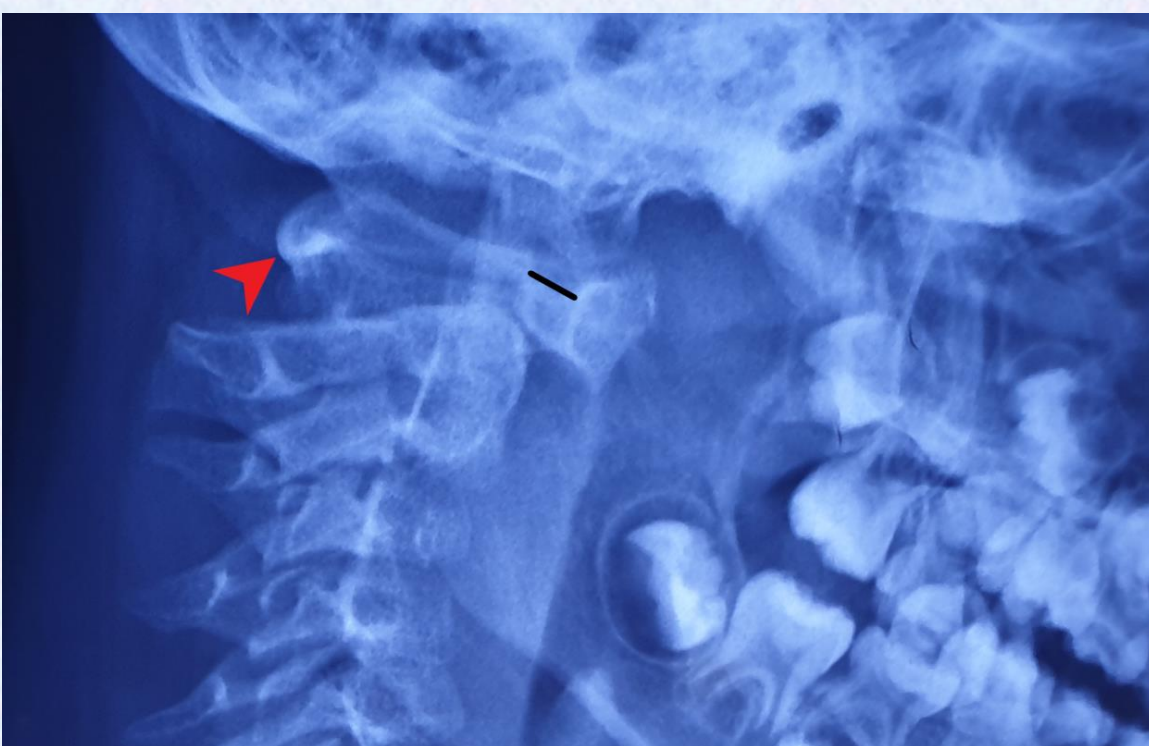
Case Report

A 6-year-old-boy complained of left neck pain for five days which was associated with fever. He denied having odynophagia, dysphagia or history of trauma. On examination, he is alert, with poor oral hygiene. His vital signs were stable. There was torticollis and tenderness over his left lateral neck region. Other systemic examinations were unremarkable. His white blood cell was $23 \times 10^9/L$ and CRP was raised. Lateral cervical x-ray revealed anterior displacement of C1 and increase in atlantodental interval (ADI) which raised a suspicion of atlantoaxial subluxation. MRI cervical done the next day shows evidence of small left retropharyngeal abscess.

Discussion

Grisel's syndrome (GS) refers to non-traumatic rotatory subluxation of the atlantoaxial joint which usually occurs in children following ear, nose and throat (ENT) infections and surgical procedures.¹ Haematogenous spread of infections and inflammatory process leading to hyperaemia and laxity of atlantoaxial ligaments is a widely accepted pathogenesis. GS should be suspected in patient presented with acute painful torticollis and fever especially with evidence of ENT infections like in this patient.² Plain cervical radiography and MRI cervical may be done to look for cervical displacement and soft tissue infections. Antibiotic and cervical collar are usually regarded as the first line treatment option.³ This patient had retropharyngeal abscess probably as a result of his poor dental hygiene causing the development of his torticollis. He was referred to ENT team and treated conservatively with intravenous antibiotics. He was discharged well five days later with complete resolution of his symptoms.

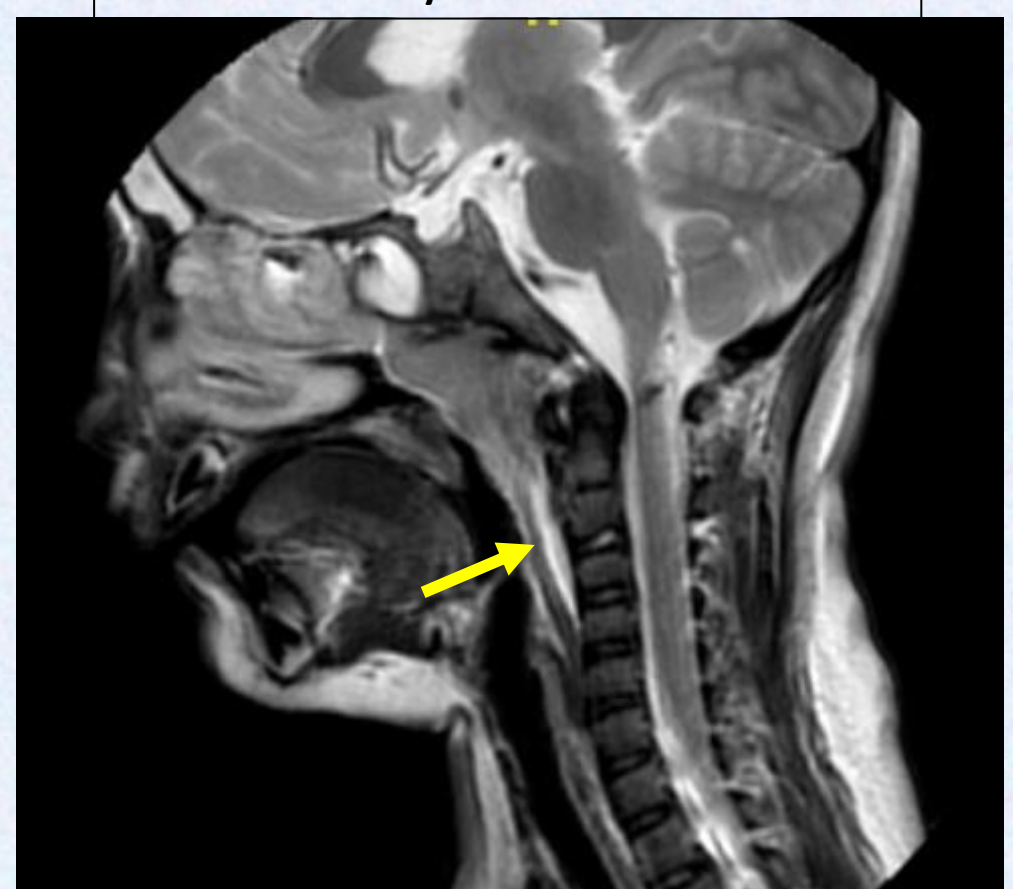
In conclusion, despite a rare condition, early diagnosis and treatment of GS is crucial to avoid devastating neurological outcomes.



Picture 2: Lateral view of cervical spine x ray shows atlantoaxial dislocation evidence by marked increase in atlantodental interval (black line) that measure 6.4 mm. The red arrow shows that the body of C1 is displaced anteriorly.



Picture 1: The boy with left sided torticollis.



Picture 3: Neck MRI shows irregular heterogenous abnormal signal intensity at left retropharyngeal space which appear hyperintense at T2, suggestive of collection.

Acknowledgement

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Declaration of Interest

The authors who participated in this case report declared no known conflict of interest.

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