Grisel's syndrome developed after adenotonsillectomy

A 6-year-old boy underwent adenotonsillectomy because he had adenotonsillar hypertrophy. On the third postoperative day, he complained of painful neck movement and tilted his head to the right. He was managed with oral antibiotics and analgesics for 7 days, but the neck pain and torticollis were not relieved. Computed tomography scan of the neck showed the asymmetry between the dens and the lateral mass of the atlas, and the atlantodental interval was 6.65 mm in the axial image (*Figure 1*). Three-dimensional reconstruction computed tomography scan also demonstrated atlantoaxial rotatory subluxation (*Figure 2*).

Cervical immobilization with head halter traction was performed. After 4 weeks, he showed a remarkable improvement in his neck movement and the torticollis was completely resolved.

Rotatory subluxation of the atlantoaxial joint without trauma or bone abnormality is called Grisel's syndrome. This is associated with head and neck infection or otolaryngological procedures like adenotonsillectomy and tympanomastoidectomy (Karkos et al, 2007).

Treatment depends on the duration and severity of torticollis. Early diagnosis and appropriate treatment are very important to improve the prognosis and reduce morbidities (Powell et al, 2017). **BJHM**

Karkos PD, Benton J, Leong SC, Mushi E, Sivaji

Dr Jin-A Park, Resident, Department of Otorhinolaryngology, Jeju National University School of Medicine, Jeju, South Korea

Dr Hee Jun Yi, Resident, Department of Otorhinolaryngology, Jeju National University School of Medicine, Jeju, South Korea

Dr Ju Wan Kang, Associate Professor, Department of Otorhinolaryngology, Jeju National University School of Medicine, Jeju, South Korea

Professor Jeong Hong Kim, Professor, Department of Otorhinolaryngology, Jeju National University School of Medicine, Jeju 63243, South Korea

Correspondence to: Professor JH Kim (jeonghongkimmd@gmail.com)

Figure 1. Computed tomography scan showing atlantoaxial joint displacement.

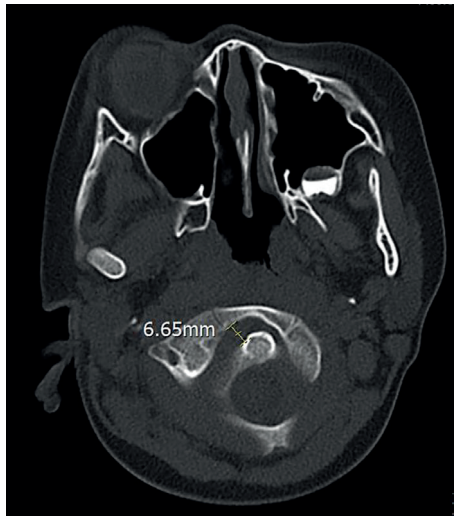

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Figure 2. Three-dimensional reconstruction computed tomography scan demonstrating the atlantoaxial rotatory subluxation.