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Journal of Cancer Research and Cellular Therapeutics
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Case Report

Grisel Syndrome about a Case

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Received Date: December 11, 2021; **Accepted Date:** December 27, 2021; **Published Date:** January 05, 2022

Citation: Bekralas H, Habchi N. (2022). Grisel Syndrome about a Case. *J. Cancer Research and Cellular Therapeutics*. 6(1); DOI: 10.31579/2640-1053/105

Abstract

Grisel syndrome, also known as nasopharyntic torticollis is a combination of a torticollis and nasopharingitis, describes first time in 1830 by bell and taken over by grisel in 19305which descibed two observations in two children complicated renopharyngitis since this syndrome bears his name.characterized clinically by sudden probing and radiographically by an enucleation of the atlas innon traumatic dislocation- rotating position . physiopathologically is caused by the inflammatory contracture of the prevertebral muscles whose origin could be a spontaneous or post opérative infection of the NTE area.This acute febrile torticollis is a rare affection mainly affects the child with an estimated age range between 8 months to 12 years, few cases are reported by literature concerning adults.Diagnosis should be realized early in order to avoid neurological restoration which cannot be carried out with certainty that other diagnoses of febril torticollis are eliminatedThe treatment is simple, the prognosis is often favorable with an adequate and early attitude directed towards the causal agent while restoring the spinal stabilit.

Key words: grisel syndrome; torticollis; nasopharyngitis; atloaxoedian dislocation

Introduction

Grisel syndrome, or nasopharyngeal torticollis, is a non-traumatic atloaxoid dislocation (c1-c2), it is one of the causes of acute febrile torticollis in children occurring before or after an infection of the ENT sphere. In 1930 Grisel described a torticollis that occurred suddenly in a child, characterized radiologically by an enucleation of the atlas at the origin of an atloaxoid luxation, secondary to an inflammatory contracture of the prevertebral muscles, the origin of which could be be a spontaneous or postoperative infection of the nasopharynx or retropharyngeal space.

The appearance of a “spontaneous” atloaxoid subluxation after ENT surgery is rare, since certain cervical pain and stiffness are usual and anti-inflammatory treatment is often introduced early. The diagnosis of certainty is often difficult to carry, it is retained after elimination of the other causes of febrile torticollis.

Treatment of febrile torticollis involves treating the infection and muscle contracture to prevent the development of a vicious attitude and hence dislocation.

History

Bell (1830) described a case of lethal atlooaxoid subluxation after a throat infection (syphilitic ulceration of the pharynx) in which erosion of the transverse ligament led to compression of the spinal cord. Grisel, 1930; Grisel and Bourgois, 1931, Robinson and Boer (1981) described a case of spontaneous atloaxoid subluxation in a 7-year-old child after Pharyngoplasty. Several theories on the causes of this subluxtation have been advanced, the infectious origin is the most implicated, however no specific bacterial agent has been isolated so far.

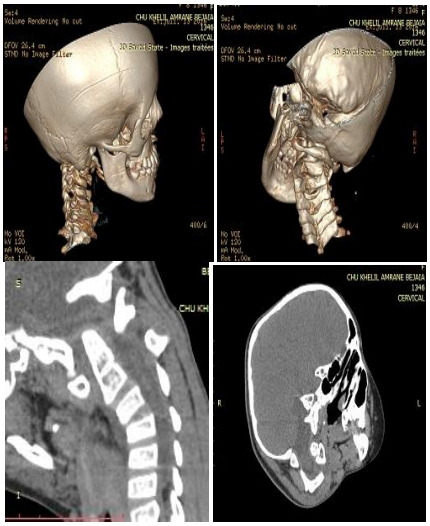
Paping et al. (1985) presented Grisel's syndrome in a 4-year-old girl, secondary to bilateral fulminant otitis media, Fusobacterium necrophorum was found in blood and ear culture

Observation:

We report the case of an 08-year-old girl with no medical history. Having presented otalgia 03 months before admission in a febrile context, the diagnosis of acute otitis retained and antibiotic treatment initiated. On D2 after antibiotic therapy, the earaches have totally regressed, however a febrile torticollis sets in, which has prompted numerous consultations with rehabilitation of antibiotic and anti-inflammatory treatment but without any notable improvement, which prompted a consultation in the neurosurgery emergency room. the clinical examination in the emergency room found a torticollis with contracture of the pre-vertebral muscles, without sensitivo motor deficit.

Clinical examination in the emergency ward

The child received, before hospitalization, a cervical CT showing atloaxoid rotatory dislocation C1-C2 classified: type IV by FIELDING and HAWKINS

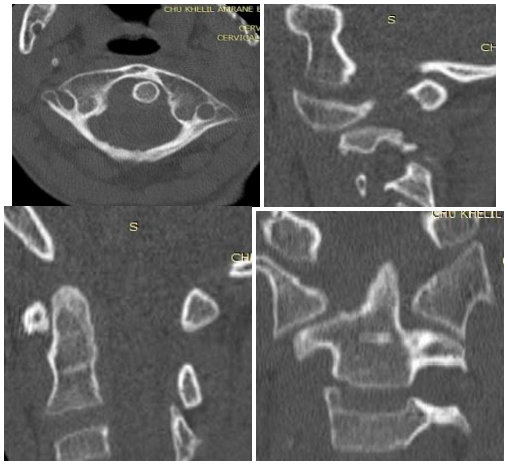


Bone and parenchyment window CT scan with 3D reconstruction

Admission is then made, transcranial traction under sedation with an initial weight of 500g was performed, then increased to 1kg the next day. a control cervical CT was performed showing a reduction in dislocation classified as type 1 of FIELDING and HAWKINS

Patient under traction

Transcranial traction was maintained for 15 days, the clinical and radiological outcome is very satisfactory with a total reduction in dislocation and disappearance of muscle contracture. the child was kept under orthopedic restraint with a philadelphia type mineral with chin support for 03 months.



Control CT: under traction

Discussion

Grisel syndrome is a non-traumatic torticollis developing in a feverish context, it is not uncommon, but can go unnoticed due to the initiation of antibiotic treatment of the causative agent before the onset of neurological complications. The infections of the ENT sphere are very often linked to this syndrome.

The treatment of grisel syndrome is simple at the beginning, it is based on an antibiotic and anti-inflammatory treatment, the evolution is then favorable after a few days of treatments a clinical and radiological control is necessary in order to avoid the neglect of a possible atloaxoid dislocation, the treatment of which is often cumbersome and expensive.

Conclusion:

The diagnosis of Grisel syndrome or nasopharyngeal torticollis must be made early in order to avoid the onset of neurological complications.
Prevertebral muscle contracture is of inflammatory origin. Atloaxoid subluxation is not an aggravating factor for torticollis, but rather a consequence of the latter.

References

1. Bell Sir Charles. (1830). The Nervous System of the Human Body. Embracing the Papers Delivered to the Royal Society on the Subject of the Nerves. London: Longman, Rees, Orme, Brown, and Greene.
2. Bland JH. (1974). Rheumatoid arthritis of the cervical spine. J Rheumatol. 1:319-342.
3. Clark WC, Coscia M, Acker JD, Wainscott K, Robertson JT. (1988). Infection-related spontaneous atlantoaxial dislocation in an adult. J Neurosurg. 69:455-458.
4. Greig DM. (1931). Clinical Observations on the Surgical Pathology of Bone. Edinburgh, Scotland: Oliver and Boyd.
5. Grisel P. (1930). Enucleation de l'atlas et torticollis nasopharyngien. La Presse Medicale. 38:50-53.
6. Grisel P, Bourgois H. (1931). Un nouveau cas de torticollis naso-pharyngien. Ann d'otolaryngol. 7:725.
7. Halla JT, Hardin JG, Vitec J, Alarco´n GS. (1989). Involvement of the cervical spine in rheumatoid arthritis. Arthritis Rheum. 32:652-659.

8. Kauppi M, Hakala M. (1994). Prevalence of cervical spine subluxations and dislocations in a community-based rheumatoid arthritis population. Scand J Rheumatol. 23:1330-136.
9. Konttinen YT, Bergroth V, Santavirta S, Sandelin J. (1987). Inflammatory involvement of cervical spine ligaments in patients with rheumatoid arthritis and atlantoaxial subluxation. J Rheumatol. 14:531-534.
10. Lippmann RK. (1953). Arthroplasty due to adjacent inflammation. J Bone Joint Surg. 35:967-979.
11. Paping RHL, Annyas AA, Mooij JJA, Penning L. (1985). Torticollis nasopharyngealis (syndroom van Grisel). Ned Tijdschr Geneeskd. 129:1787-1790.
12. Robinson PH, De Boer A. (1981). La maladie de Grisel: a rare occurrence of ‘‘spontaneous’’ atlantoaxial subluxation after pharyngoplasty. Br J Plast Surg. 34:319-321.
13. Sangermani R, Micheloni F, Partesana A, Cammarata C, Pacilli P, Lucchini F. (1986). Grisel’s syndrome. Description of a case of spontaneous subluxation of the atlas. Pediatr Med Chir. 8:735-736.
14. Stoll W. (1980). Pharyngeal abscesses following tonsillectomy. HNO. 28:63-66.
15. Sullivan AW, Rochester NY. (1949). Subluxation of the atlantoaxial joint: sequel to inflammatory processes of the neck. J Pediatr. 35:451-464.
16. Watson-Jones R. (1932). Spontaneous hyperemic dislocation of the atlas. Proc R Soc Med. 25:586-590.
17. Werne S. (1955). Spontaneous atlas dislocation. Acta Orthop Scand. 25:32-43.

DOI: 10.31579/2640-1053/105