

Case Report

Febrile torticollis in an infant: what is your diagnosis?

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Received: 18 November 2020

Revised: 21 December 2020

Accepted: 26 December 2020

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ABSTRACT

Retropharyngeal abscess is a rare but serious infection, in children, it is often secondary to upper respiratory tract infections. We report the case of an 18-month-old infant admitted to the emergencies for acute febrile torticollis. A computed tomographic (CT) scan with contrast agent injection revealed a collection of the retropharyngeal space; management consisted of triple antibiotic therapy and transoral drainage. The evolution was made towards a clinical and biological improvement. Retropharyngeal abscess should be suspected in front of dysphagia, cervical stiffness associated with a febrile syndrome, CT scan confirms the diagnosis and early management by intravenous antibiotic therapy whether or not combining surgical drainage, which remains a subject of discussion. Early diagnosis and management help to avoid life-threatening complications.

Keywords: Retropharyngeal abscess surgery, Pediatrics

INTRODUCTION

The retropharyngeal space (RP) is an odd and median space extending from the base of the skull to the 3rd cervical vertebra, its content consists of cellular tissue and lymphoid elements, RP abscess most often affects children aged two to four years with a slight male predominance, although it occurs at other ages, including in newborns.¹

The clinical diagnosis can be difficult, the symptomatology is variable and non-specific, it is to be evoked in front of a high fever, dysphagia or hypersalivation in infants, cervical adenopathies, torticollis or stiffness which is an important clinical sign and an asymmetry of the posterior oropharyngeal wall.

In this article, we report the case of an 18 months old child, admitted to our department for retropharyngeal abscess revealed by acute febrile torticollis.

CASE REPORT

An 18-month-old infant, female, with no notable pathological history, who has had a deterioration in the general condition for 2 months, the symptomatology also associated hypersalivation and stiff neck, in a febrile context. During the interrogation, the child's parents reported a feverish episode at 39 °C which occurred about 1 month ago, and was attributed to pharyngitis, treated with oral antibiotics. Clinically the infant is hypotonic, febrile at 39, stable on the hemodynamic and respiratory plan, she presented neither dyspnea nor stridor. Examination of the oral cavity showed a bulging of the posterior wall of the oropharynx covered by a healthy mucosa, stiffness in the neck and multiple bilateral latero-cervical lymphadenopathies were found on cervical examination, the rest of the clinical examination was without particularity. A severe infectious syndrome was found on the biological level with a C-reactive protein (CRP) at 40 mg/l and leukocytes at 20 g/l.

What is your diagnosis?

A computed tomography (CT) scan with contrast injection was realized (Figure 1), axial sections, and sagittal reconstruction revealed a collection of the retropharyngeal space, lateralized to the right, measuring 20×44×34 mm. A triple antibiotic therapy combining triaxone, metronidazole, and gentamicin was established, without improvement of the symptomatology. Surgical treatment using a trans-oral approach made it possible to drain the collection. No germ was identified during the examination of the bacteriological sample taken during the surgical procedure. The evolution was made towards a clinical and biological improvement, A relay by Amoxicillin (50 mg/kg/day in 3 doses) was established for 8 days allowing a permanent cure a few weeks later.

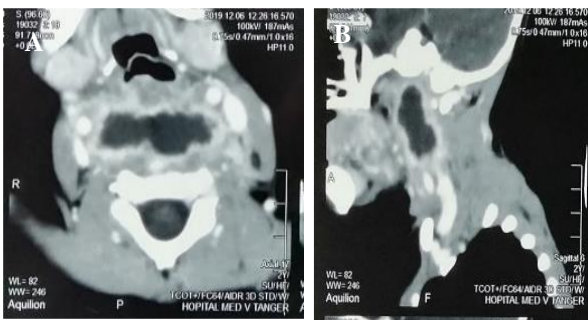


Figure 1: (A) Cervical CT scan with axial and (B) sagittal slices showing a hypodense image extending from C1 to C4 suggestive of a retropharyngeal median abscess.

DISCUSSION

The RP is an odd and median space extending from the base of the skull to the 3rd cervical vertebra, its content consists of cellular tissue and lymphoid elements specially developed in the prepubertal period and which atrophies thereafter. These nodes drain the nasopharynx, the Posterior, paranasal sinuses, and the middle ear and soft palate explaining the high frequency of upper respiratory tract infections in the genesis of PR abscesses.

RP abscess most often affects children aged two to four years with a slight male predominance, although it occurs at other ages, including in newborns, in adults, the trauma of the upper airways should always be searched for (endoscopic, intubation, ingestion of foreign body) or a context of immunosuppression.^{1,3}

The clinical diagnosis can be difficult, the symptomatology is variable and non-specific, it is to be evoked in front of a high fever, dysphagia or hypersalivation in infants, cervical adenopathies, torticollis or stiffness which is an important clinical sign and an asymmetry of the posterior oropharyngeal wall. In our patient the febrile syndrome, torticollis and posterior wall bulge have helped guide the diagnosis, besides

dyspnea may be the first symptom and could suggest the diagnosis of the epiglottitis. There is no difference in the clinical presentation between the inflammatory and collected stage.³

The inflammatory syndrome is assessed by a complete blood count with a CRP, and should be routinely requested.

The CT scan with an injection of contrast is the imaging of choice. It allows a positive diagnosis to be made by differentiating between retropharyngeal abscess and cellulitis, to assess the extension to other cervical spaces, specially the vascular space (internal carotid artery and internal jugular vein), which is an important element in guiding the choice of approach (transoral versus cervical).or the mediastinum, and to visualize a possible foreign body.⁴⁻⁶

The therapeutic strategy is not codified due to the small number of observations reported in the literature consulted. Nevertheless, it appears that the treatment of retropharyngeal abscesses begins with empirical intravenous antibiotic therapy that should cover the upper airway flora and anaerobes, which will then be adapted to the results of the exclusive antibiogram. The choice of antibiotic strategy (class, name, duration) is poorly documented in the literature. In France, there is no official recommendation given the germs identified.

For some authors, antibiotic therapy alone is insufficient, and it must be combined with surgical drainage. For other authors, the operation is proposed after 48 hours of observation in the absence of clinical improvement, or immediately if there are complications: airway obstruction, mediastinitis, sepsis, paralysis of cranial pairs, vascular damage, or a collection >20 mm in diameter.^{4,6} The approach may be external or endobuccal.

Bacteriological samples, taken during surgical exploration, allow the identification of the germs involved, which are most often those responsible for oropharyngeal infections: group A hemolytic *Streptococcus β*, *Streptococcus viridans*, *Staphylococcus*, *Haemophilus* and anaerobic germs. Sometimes the samples are sterile.

The untreated retropharyngeal abscess can be responsible for complications that can be very serious such as mediastinitis, airway obstruction, and rupture of the abscess leading to severe pneumonia.

CONCLUSION

RP abscess should be suspected in the presence of dysphagia, cervical stiffness associated with a febrile syndrome, CT scan to confirm the diagnosis, and early management with intravenous antibiotic therapy with or without surgical drainage, which remains a subject of discussion.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

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Cite this article as: Rkain I, Toutimi S. Febrile torticollis in an infant: what is your diagnosis? Int J Sci Rep 2021;7(6):316-8.