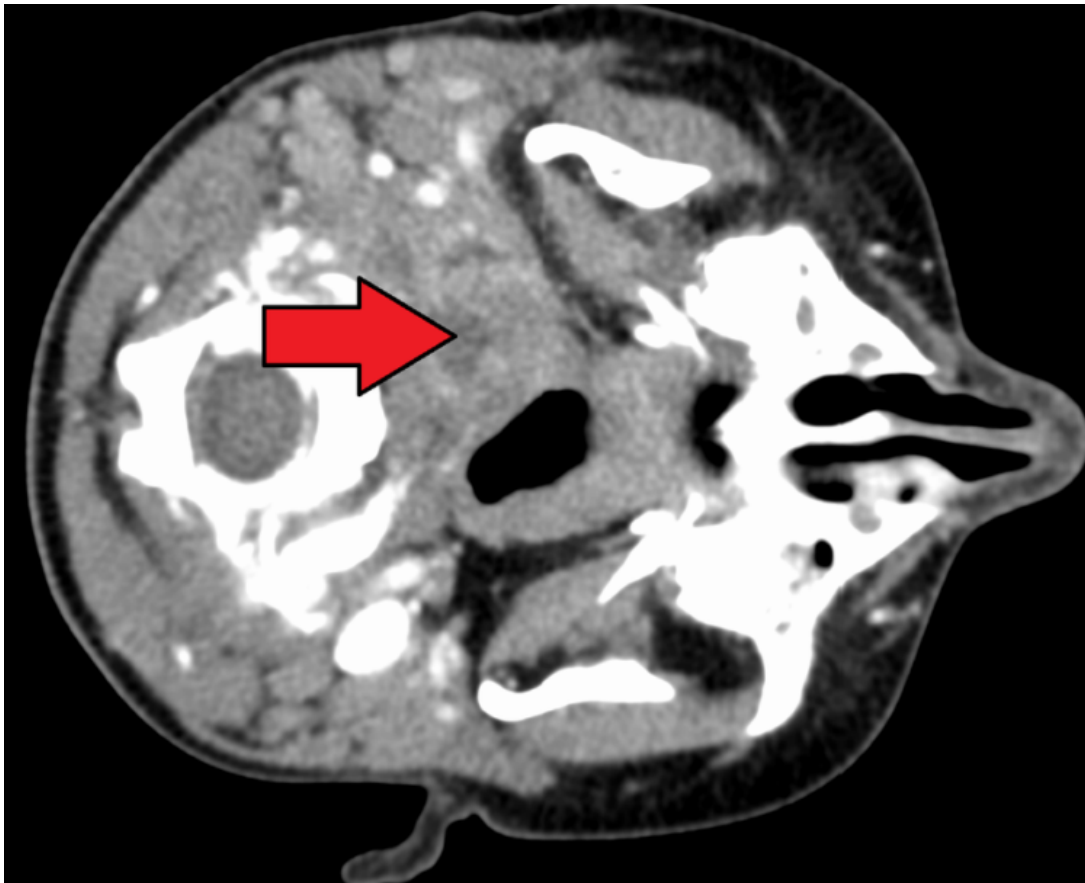


Pediatric Retropharyngeal Abscess — Causes and Complications

[See online here](#)

A retropharyngeal abscess is an abscess located behind the posterior pharyngeal wall in the retropharyngeal space. A retropharyngeal abscess is difficult to diagnose by physical examination because they are located in the deep tissue spaces. The patient usually presents with a stiff neck and difficulty in swallowing. As the deep spaces in the neck are continuous with one another, the abscess can pass from the parapharyngeal space to the retropharyngeal space and then behind the esophagus into the mediastinum.



Pathophysiology of Pediatric Retropharyngeal Abscess

The retropharyngeal space, as the name suggests, lies behind the pharynx. It is bounded anteriorly by the buccopharyngeal fascia, posteriorly by the prevertebral fascia and laterally by the carotid sheaths. Superiorly, it extends to the base of the skull and inferiorly to the mediastinum.

Epidemiology of Pediatric Retropharyngeal Abscess

A review conducted in the Children's Hospital of Michigan showed a **4.5 increase** in the cases of retropharyngeal abscess over the past few years. Similarly, different studies conducted in different hospitals in the United States showed an increase in the cases of retropharyngeal abscess over time.

Worldwide, the incidence has reportedly been increasing due to late diagnosis and treatment. It is usually common in children under 5 years of age and its possible cause can be attributed to **poor dental hygiene** and **dental infections**.

Retropharyngeal abscess is less common in females and is **more prevalent among males**.

Signs and Symptoms of Pediatric Retropharyngeal Abscess

- Stiff neck or torticollis
- Severe pain in the neck
- Malaise
- Fever
- Drooling of saliva
- Enlarged cervical lymph nodes

Causes and Diagnosis of Pediatric Retropharyngeal Abscess

The disease is caused by aerobic, as well as anaerobic organisms. Aerobic organisms include **Staphylococcus aureus** and **beta-hemolytic streptococci**. Anaerobic organisms include **bacteroides** and **veillonella**. Gram-negative organisms include **haemophilus parainfluenzae** and **bartonella henselae**.

As the infection is present in the deep spaces, a definitive diagnosis is made by a CT scan. A lateral neck radiograph shows the presence of infection in approximately 80% of the cases. Retropharyngeal abscess is suspected in cases where the retropharyngeal space is half of the size of the second cervical vertebra.

Treatment of Pediatric Retropharyngeal Abscess

Definitive treatment is a **surgical incision of the abscess** and ultimately **drainage**. The procedure is usually carried out without general anesthesia as intubation can rupture the abscess leading to aspiration into the lungs.

Some severe cases may require **emergency tracheostomy**. The disease requires the administration of a high dose of **intravenous antibiotics**. Chronic cases of retropharyngeal abscess usually occur secondary to tuberculosis and require **antitubercular therapy**.

Complications

- Aspiration of pus contents into the lungs
- Airway obstruction
- Mediastinitis
- Osteomyelitis
- Pericarditis
- Jugular vein thrombosis

Mortality and morbidity

The mortality rate was **1%** in a review of neck space infections carried out in Taiwan. With the development of mediastinitis, the mortality can reach up to **50%**, even after being treated by antibiotics. A retropharyngeal abscess can also cause jugular vein thrombosis, pericarditis and carotid artery erosion.

References

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