The Evaluation of Retropharyngeal lesion by CT may be a clue to early diagnosis with spontaneous pneumomediastinum and Kawasaki disease.

Hiromi Kanazawa, M.D., Ph.D.*, Yukiko Iino, M.D., Ph.D.**, Naohiro Yoshida, M.D., Ph.D.***
*Department of Otorhinolaryngology, Saitama Citizens Medical Center, **Department of Otorhinolaryngology, Tokyo-Kita Medical Center, ***Department of Otorhinolaryngology, Jichi Medical University Saitama Medical Center

Conclusion

As a type of retropharyngeal disease, abscess is well-known and requires surgical drainage. On the other hands, the lesions due to pneumomediastinum and Kawasaki disease (KD) are relatively uncommon and generally show a good prognosis with conservative adequate treatment. To prevent a severe state, early diagnosis and treatment is important for these diseases. Computed tomography (CT) scan is useful for detection of these diseases.

We report two cases complaining of consistent fever, cervical pain.

Case 1 (7-year-old boy)

He was admitted to our hospital with consistent fever after influenza A virus infection. He complained of cervical pain but had only slight cervical swelling. He couldn’t breathe via nose because of severe allergic rhinitis (IgE=1080) and had a slight cough.

We planned a CT to evaluate for sinusitis, but incidentally found a retropharyngeal emphysema (Fig.1). The additional image found the lesion continuing to the pneumomediastinum, and a small early pneumonitis (Fig.2). As a result, he recovered within 7 days after changing antibiotics (AMPC/CV→MEPM) with careful monitoring.

Discussion 1

* Spontaneous pneumomediastinum is caused by a rapid increase in alveolar pressure, causing alveolar rupture and release of air into the tissues. The incidence is unknown, but 0.3% in children with asthma (Udupa S et al.:CMA, 2011).
* Severe cases (sudden dyspnea with pneumotorax) after viral infection (influenza or adeno-virus) are reported in the pediatric literature.

In this case cough might lead to the occurrence.

Case 2 (5-year-old girl)

This case was admitted with one day history of fever (39.6°C) and neck pain(Fig 3) which was resistant to oral antibiotics. [Blood test] WBC :21760 mm³ (neuphil 91.3%), CRP: 27.5mg/dl Na :129 mmol/L

We treated the patient with Cefazolin on a drip, but the illness hadn’t improved. (On the 4th day) Enhanced CT showed the presence of a retropharyngeal low-density lesion. Because her symptom became worse (limiting of the mouth opening) we tried to open the lesion under general anesthesia treating it as a pharyngeal abscess but nothing drained. We suggested the possibility of KD to the pediatrician. (On the 5th day) KD criteria* was set and the treatment was started by using y-globulin and aspirin and prednisolone. The treatment was effective and the symptoms improved soon.

Discussion 2

* KD is known as mucocutaneous lymph node syndrome, is an acute febrile systemic vasculitis. Prompt treatment is effective in reducing the risk of coronary aneurysms.

* Retropharyngeal lesion with no ring enhancement by CT is different from abscess (Puhalakka L et al. Int J pediatr otorhinolaryngol 2014).

* Low-density lesions in the retropharyngeal space were identified by enhanced CT in 3.6% of the KD patients (Tona R et al.:ANL, 2014).

*KD criteria : High fever, Changes in extremities (edema, erythema), polymorphous exanthema, Conjunctibal injection, Changes in lips and oral cavity, Cervical lymphadenopathy (>1.5cm diameter)

Department of Otorhinolaryngology, Saitama Citizens Medical Center

Hiromi Kanazawa

The Evaluation of Retropharyngeal lesion by CT may be clue to the early diagnosis with spontaneous pneumomediastinum and Kawasaki disease.

E-mail : sugkanhiro@gmail.com
Tel : +81-(0)48-626-0011, Fax: +81-(0)48-799-5146.

Fax: +81-(0)48-799-5146, Tel: +81-(0)48-626-0011,

Visitor Address:
Department of Otorhinolaryngology, Jichi Medical University Saitama Medical Center

299-1 Shimane, Nishi-ku, Saitama-shi, Saitama 331-0054, Japan