Acute suppurative thyroiditis secondary to pyriform sinus fistula

Takeshi Kondo

A 27-year-old woman presented with a 4-day history of odynophagia and fever. Oropharyngeal examination was normal. Neck examination revealed tender erythematous swelling of the left anterior neck. A contrast-enhanced CT scan of the neck showed an abscess formation in the left pyriform sinus fistula and in the left thyroid lobe (figure). A diagnosis of acute suppurative thyroiditis secondary to pyriform sinus fistula was made. Abscess incision and drainage were done, and pus cultures yielded colonies of *Streptococcus constellatus*. The patient's condition gradually improved with a 2-week course of meropenem (500 mg every 8 h, intravenously). The patient was discharged 4 weeks after starting treatment and a repeated neck CT scan showed disappearance of the infectious lesion. She opted not to receive surgical removal of the pyriform sinus fistula. At follow-up 2 years later, she had no recurrence of pyriform sinus fistula-associated infection.

Pyriform sinus fistula is an embryonic remnant resulting from failure of intrauterine obliteration of the third or fourth pharyngeal pouch. The sinus tract originates from the pyriform sinus and courses anteroinferiorly, either beside or through the thyroid gland, into the perithyroid tissue. The fistula usually occurs in the left side, which is thought to be because of embryonic asymmetrical transformation of the fourth pharyngeal arch. Pyriform sinus fistula induces recurrent development of deep neck infection. It can also cause acute suppurative thyroiditis. Pyriform sinus fistula-associated infections in adults are rare.

Declaration of interests
I declare no competing interests.

Acknowledgments
Written consent to publish this report was obtained from the patient.

Lancet Infect Dis 2019; 19: 447

Department of General Medicine, Chiba University Hospital, Chiba, Japan
(T Kondo MD)

Correspondence to:
Dr Takeshi Kondo, Department of General Medicine, Chiba University Hospital, Chiba 260–8677, Japan
axsa4262@chiba-u.jp

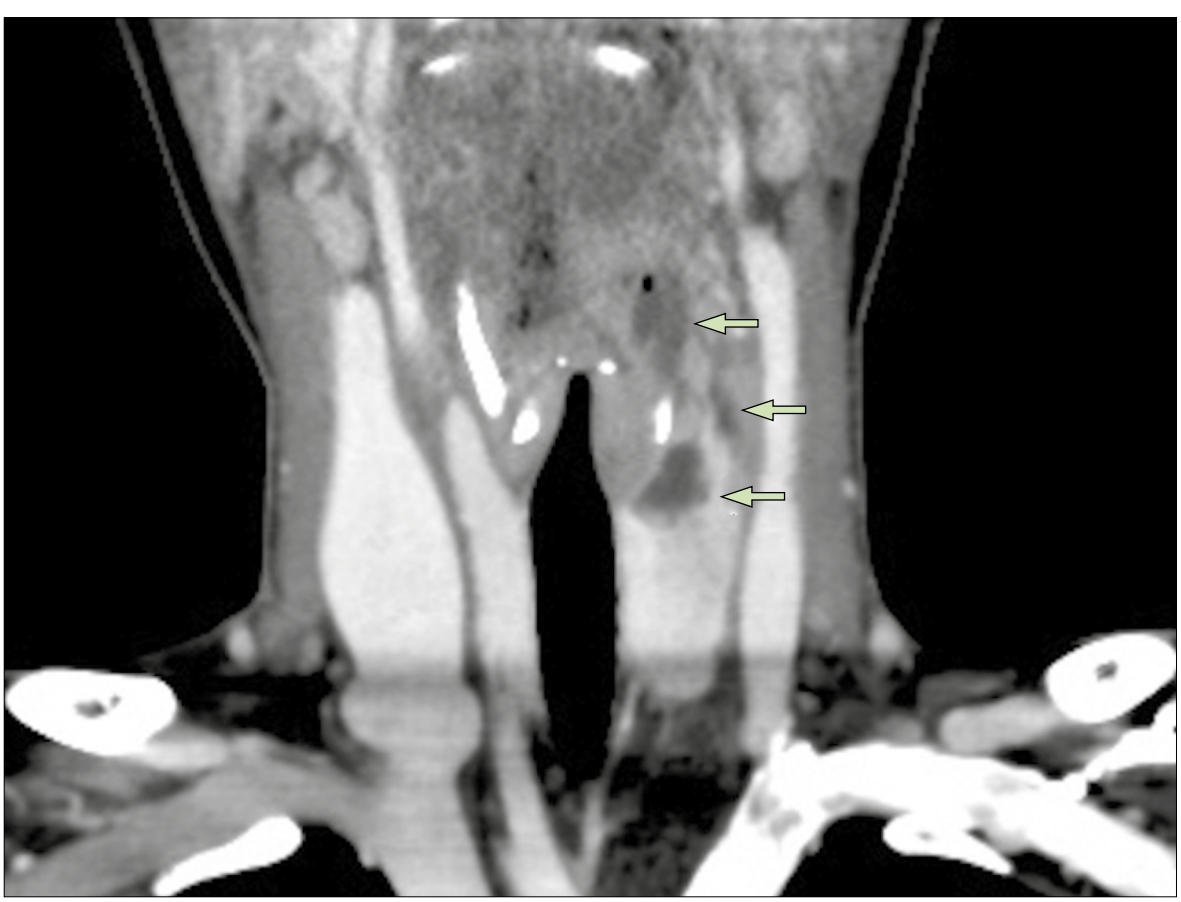

Figure: **CT scan of the neck**
Contrast-enhanced neck CT shows abscess formation in the sinus tract coursing from the left pyriform sinus apex along the left strap muscle to the left thyroid lobe (arrows).