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Pulmonary puzzle

Acute respiratory distress in a patient using non-invasive ventilation

CLINICAL PRESENTATION

A 49-year-old man with advanced motor neurone disease was admitted for initiation of non-invasive ventilation (NIV) for established daytime hypercapnia and symptoms of nocturnal hypoventilation. It had also been noted that when sleeping he was snoring heavily. He had initially tolerated NIV well during the day, but during his second night he was noted to be in respiratory distress with worsening arterial blood gases. He refused to use his ventilator any further. Communication was extremely limited due to severe bulbar symptoms, but the patient indicated facial discomfort. The chest radiograph was normal and a lateral facial radiograph is shown in fig 1.

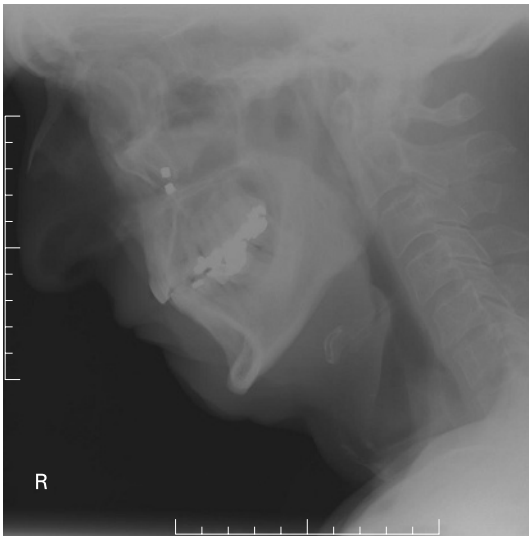

Figure 1 Lateral facial radiograph.

QUESTION

What is the abnormality and the likely explanation for it?
See page 844.

This case was submitted by:

K S Bonnici, W D-C Man, M I Polkey

Sleep and Ventilation Unit, Royal Brompton Hospital, London, UK

Correspondence to: Dr K S Bonnici, Royal Brompton Hospital, London, UK; k.bonnici@rbht.nhs.uk

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