Tracheal Bronchus (Bronchus Suis)
Published on 09.10.2001

DOI: 10.1594/EURORAD/CASE.1156
ISSN: 1563-4086
Section: Paediatric radiology
Imaging Technique: CT
Case Type: Clinical Cases
Authors: C Brenner, R Hayes
Patient: 6 weeks, male

Clinical History:
A six week old infant with clinical bronchiolitis, right upper lobe collapse/consolidation on radiograph and a diagnostic CT thorax. The child recovered from this episode but was readmitted with a similar problem four weeks later.

Imaging Findings:
A six week old male infant was admitted with a short history of cough, wheeze and irritability. His previous history was unremarkable. Clinically, there was sternal recession, tracheal tug and scattered crepitations. A murmur of an ASD was also noted. A diagnosis of bronchiolitis was made. A chest radiograph on admission showed right upper lobe collapse/consolidation (Figure 1). The child received nebulisers and physiotherapy; antibiotics were withheld. He did not improve clinically and a repeat chest radiograph five days later showed persistent right upper lobe collapse. The possibility of a tracheal bronchus (pig bronchus, bronchus suis) was raised and the decision was taken to perform a CT thorax (Siemens Somatom Plus Spiral scan; post IV contrast; slice thickness 5mm, pitch =1). This confirmed the presence of a tracheal bronchus. This can be seen arising from the right lateral wall of trachea, above the carina with an associated area of collapse/consolidation (Figure 2).

Discussion:
The CT thorax clearly demonstrates a tracheal bronchus arising above the level of the carina on the right side (Figure 2). This is a congenital anomaly which occurs when an aberrant bronchus arises from the trachea, usually from the right wall of the trachea above the carina. Its incidence is 0.1-5%. It may be an incidental finding at bronchoscopy. Alternatively it may be the underlying cause in such chronic lung problems as emphysema, atelectasis, bronchiectasis or recurrent pneumonia, as in our patient. When involving the right main bronchus, it tends to present clinically. It may occur in isolation or in association with Down’s syndrome, tracheal stenosis or other bronchopulmonary anomalies. While our patient had an ASD, this association has not been documented in the literature. Congenital bronchial anomalies may be classified as “accessory cardiac bronchi” or “tracheal bronchi”. An accessory cardiac bronchus arises from the right middle lobe bronchus or bronchus intermedius and extends towards the pericardium. Tracheal bronchi are classified as supernumerary (true) tracheal bronchi, or as displaced (ectopic) bronchi, where the normal trifurcation of the right main bronchus is absent and the missing branch arises instead from the trachea or main stem bronchus. This latter anomaly is more common. Management is conservative if asymptomatic but if problematic, lobectomy and resection of the aberrant bronchus is advised.

Differential Diagnosis List: Tracheal Bronchus (Bronchus Suis)
Final Diagnosis: Tracheal Bronchus (Bronchus Suis)

References:

Description: Chest radiograph demonstrating right upper lobe collapse/consolidation. Origin:
Figure 2

Description: Spiral CT thorax post IV contrast, showing a bronchus arising above the carina on the right, with associated collapse/consolidation of right upper lobe. Origin: