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Case Report

TRACHEAL BRONCHUS – A CASE REPORT WITH CT DIAGNOSIS

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ABSTRACT

Tracheal bronchus is rare tracheal anomaly which can lead to plethora of complications. This may remain asymptomatic in majority of children. The diagnosis is usually delayed as this entity is not considered as the cause of the underlying pathology. The diagnosis is of prime importance for the treatment as well as for the purpose of some interventions like tracheostomy and tracheal intubation. We present a two years old child who presented with recurrent respiratory infection since birth. The child underwent Computerized Tomography (CT) scanning and was diagnosed to be having right sided tracheal bronchus

Keywords: Tracheal Bronchus; Tracheostomy; Tracheal Intubation; CT Scanning.

INTRODUCTION

The aberrant origin of the right upper lobe bronchus is called as “Tracheal bronchus” when the entire bronchus takes origin from the trachea. It was first described by Sandifort in 1785¹. This is also called as “pig bronchus” or “bronchus suis”. This can either be supernumerary or displaced type. The incidence is 1 % and there is predilection for the right side.

CASE REPORT

2 years old female child reported with the history of frequent respiratory infections since birth. The child was treated at different places for the chest infections without any outcome. X-ray chest has revealed a vague faint opacity in the right upper lobe. There was no cavitation or calcification in this region. In biochemical parameters except a slight high leukocyte count no other abnormality was noticed. The CT Chest was performed and this revealed an inhomogenous opacity in the right upper lobe (Figures 1 and 2).

There was also evidence of the aberrant origin of the right upper lobe bronchus (Figures 3 and 4). The tracheal bifurcation was normal without any super numeric bronchus. The tracheal caliber was narrowed after the origin of the aberrant right upper lobe bronchus.



Figure 1: Axial section of CT Chest in lung window shows an opacity in the right upper lobe with ill defined margins (broad white arrow).



Figure 2: Reformat coronal section of CT Chest in lung window shows the consolidation patch in right upper lobe (white arrow)



Figure 3: Reformat coronal section of CT Chest shows aberrant origin of right upper lobe bronchus (broad black arrow). Trachea is slightly narrow in caliber after the origin of the aberrant bronchus (black arrow). Right main bronchus divides into the middle and lower lobe bronchus in normal pattern (broad white arrow). The linear hyperlucent shadow on the left side of the trachea is air in the upper thoracic oesophagus.



Figure 4: Axial section of CT Chest in lung window shows normal bifurcation of the trachea (black wide arrow)

DISCUSSION

This is infrequently an incidental finding but can present with different types of symptoms. The usual complaints are recurrent right upper lobe pneumonia to emphysematous changes². In our case there were recurrent chest infections.

The child was treated for a long period without any relief. Bronchoscopy can lead to different type of complications in these patients. Bronchography is obsolete these days. Computerized Tomography (CT) remains the main stay for the diagnosis. Multiplanar 3-D reconstruction in lung window can confirm the diagnosis with fair certainty³. The aberrant origin of right upper lobe bronchus can cause many complications during tracheostomy and tracheal intubation⁴.

CONCLUSION

CT plays an important role in evaluation of various congenital variants and anomalies of the lung anatomy. The complaints of recurrent respiratory infections in childhood should be regarded as clue to confirm about the normal lung anatomy. These anomalies can be treated either surgically or medically depending on the underlying defect. The right diagnosis can prevent any catastrophic situation in case some tracheal intervention is warranted.

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