

Case Report

A rare case of bilateral bifid ribs: a case report

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ABSTRACT

Bilateral bifid (bifurcation) rib is very rare malformation of thoracic wall. In this case, we observed variation involving right 6th and left 7th rib in 21 year female. The right 6th and 7th rib and its costal cartilage were bifurcated enclosing a small oval additional intercostal space.

Keywords: Bifid ribs, Rare bilateral bifid costal cartilage, Rib bifurcation, Rib anomaly

INTRODUCTION

Thoracic cage is formed by 12 pair of ribs and sternum, provides support and protection to various viscera in thoracic cavity. Ribs are derived from ventral extension of the sclerotomic mesenchyme that forms the vertebral arches. In thoracic region, the entire extension (called the primitive costal arch) undergoes chondrification, and subsequent ossification, to form the ribs. Common anomalies of ribs include missing/absent rib, Accessory ribs (cervical or lumbar).

CASE REPORT



Figure 1: X-ray chest showing right 6th and left 7th bifid ribs.

A 21 year female presented with complaints of swelling in bilateral axillary region since 6 months. There was no history of fever, malaise, weight loss, cough, chest pain, breathlessness, and haemoptysis. No past history of tuberculosis. Clinical suspicion of bilateral axillary lymphadenopathy due to tuberculosis. X-ray chest done to see any evidence of pulmonary tuberculosis. X-ray chest showed right 6th and left 7th bifid ribs [Figure 1 & 2].

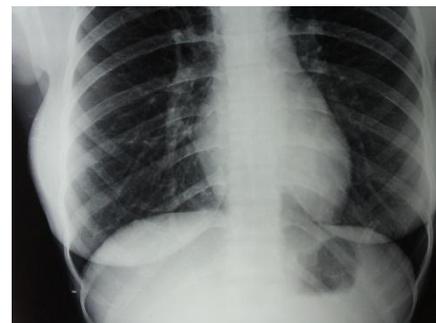


Figure 2: X-ray chest showing right 6th and left 7th bifid ribs on magnification of image.

DISCUSSION

Bifid ribs are generally incidental findings discovered on chest radiography or during cadaveric dissection.^{1,2} Usually they are asymptomatic but can be associated with

respiratory difficulty or neurological complaints or any chest deformity.⁴ Patient may present with chest pain, dyspnoea or hemoptysis. It can be seen in Gorlin-Goltz syndrome⁵ a rare autosomal dominant disorder characterize by multiple nevoid basal cell carcinoma, jaw cyst and bifid ribs.

In a study of forty thousand chest x-rays by etter et al.³ showed that bifid ribs are more common in males and usually unilateral, more common on right side and mostly involving 3rd and 4th rib.

Knowledge of bifid ribs is necessary for differentiating it from other conditions like fracture or tumours of chest wall. Ribs and intercostal spaces are important for surface marking for clinical examination and surgical procedures.

CONCLUSION

Knowledge of this anatomical variation is of utmost important to surgeons performing thoracic surgeries.

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