



Seven Accessory (Supernumerary) Thoracic Ribs in Left Thoracic Wall: A Case Report

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Abstract

Common rib anomalies include cervical ribs, bifid ribs, rib dysplasia, and intercostal fusion.

The term “intrathoracic rib” signifies abnormal location of a rib within the thoracic cavity.

An intrathoracic rib is a rare and benign congenital anomaly of the thoracic cage. A Female cadaver had seven supernumerary intrathoracic ribs on the left side. Its location in the posterior mediastinum with lack of attachment to adjacent ribs(intercostal fusion) were unusual features. Most commonly accessory ribs are associated with right side but in the present study it was observed on left side.

Keywords: *Intrathoracic rib, Supernumerary rib, intercostals fusion.*

Introduction

The term “intrathoracic rib” signifies abnormal location of a rib within the thoracic cavity. The intrathoracic rib (IR) is a very rare congenital anomaly in which a normal rib, an accessory rib, or one arm of a bifid rib courses abnormally into the chest cavity^[1,2]. It may originate from a vertebra or a rib, and sometimes it may be associated with vertebral anomalies^[3] Supernumerary Intrathoracic rib (IR) was first reported in 1949 by Jacobs^[1]. A left-sided supernumerary rib was first reported in 1957 by Wilk and Hülshoff^[2]. Anomalous ribs arise due to inappropriate segmentation during the embryonic

development of the axial skeleton. These anomalies are usually clinically silent and detected incidentally by imaging studies. They should be kept in mind in the differential diagnosis of thoracic pathologies^[4]. Most commonly it is associated with right side but in the present study it was observed in the left side. Ribs are protective ribbon-like bony elements normally present within the chest wall and are few of the most imaged structures in the clinical practice

Case Report

Seven accessory (Supernumerary) thoracic ribs were found in female cadaver on the left side

during routine dissection at Department of Anatomy, J.N. Medical College, Sawangi (Meghe), Wardha (M.S). The specimen of interest was dissected carefully and photographed.

On the left thoracic wall of a female cadaver, accessory ribs originated from left side of third to ninth thoracic vertebrae (fig-1). The lengths of

accessory ribs ranged from 2 to 10 cm. These were false ribs because they never had costal cartilage and were not attached with sternum but to vertebrae (Fig No. 1). The associated finding was left lung was hypoplastic 5x4x4cm and it had three impressions caused by ribs (fig-3).

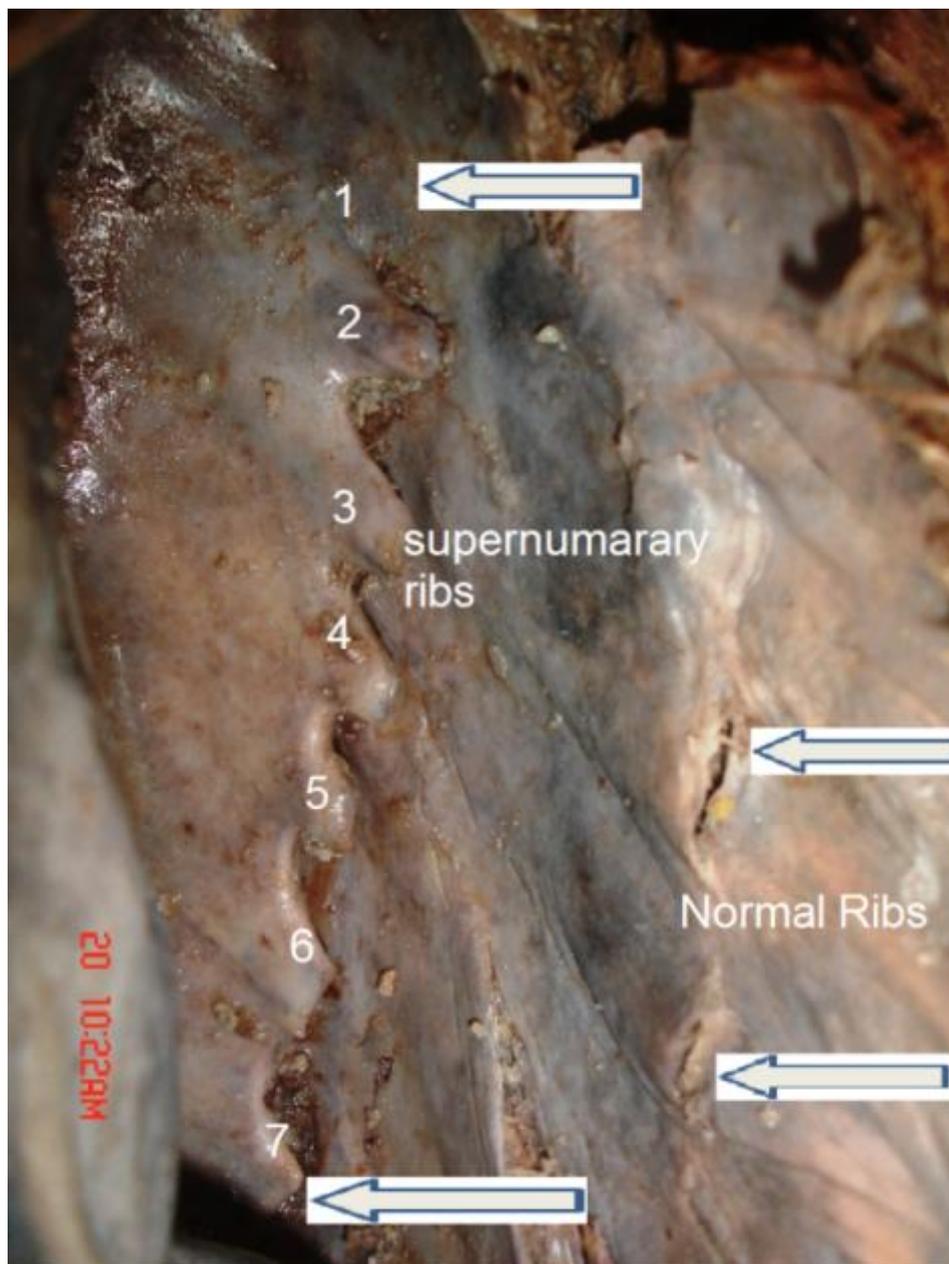


Figure No 1: seven left intrathoracic ribs along with normal ribs

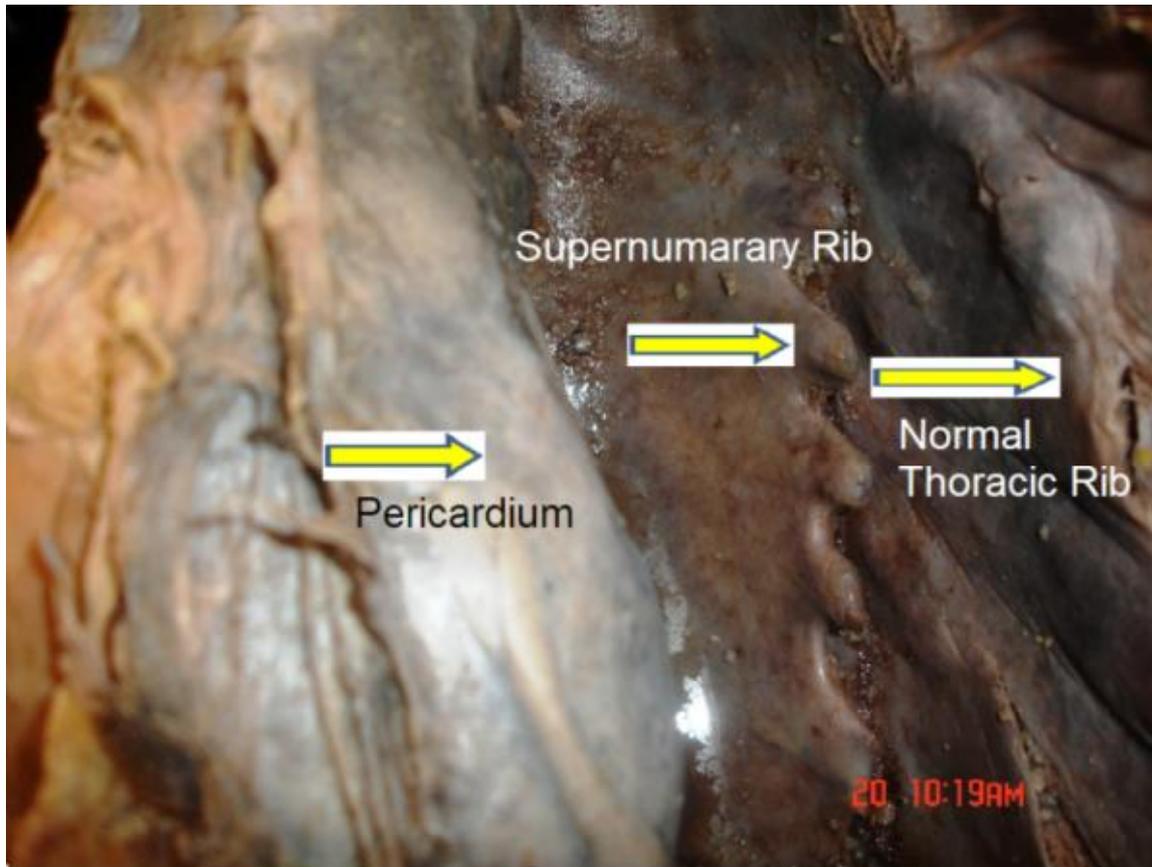


Figure No 2: False ribs attached to vertebrae



Figure No 3: Left Lung showing impressions caused by ribs

Discussion

Ribs form from costal process of thoracic vertebrae and thus are derived from the sclerotome portion of paraxial mesoderm^[5]. It is more commonly present on the right side and between the third rib through the eighth rib, and no gender predilection is reported^[6]. Rib anomalies are relatively common and affect almost one percent of the general population.. Kamano et al. classified intrathoracic rib into four types. Type Ia is a supernumerary rib. Type Ib is a bifid rib originating from the posterior part of the rib. Type II is a depressed rib, and Type III is a bifid rib originating from the anterior part of the rib^[7]. The present case had characteristics of Type Ia, In the present case report it was observed that the left lung was collapsed and impression of ribs were noticed on external surface, similar finding was noticed by Mahajan et al^[8].

Inference

The present case is suggestive of left seven intrathoracic ribs (left seven supernumerary ribs), and hypoplastic left lung. Clinical significance of these anomalies are usually silent throughout life time& detected incidentally by imaging. These should be kept in mind in differential diagnosis of thoracic pathology^[8].

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