A CASE OF ACCESSORY PECTORAL MUSCLE: ANATOMICAL VARIATIONS, CLINICAL SYMPTOMS AND RADIOLOGICAL DIAGNOSIS

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ABSTRACT

In the present case, accessory pectoral muscle was reported in elderly male with history of fever & cough. The cough was productive & mucoid. He was examined & thoroughly investigated. He was found to have diffused patchy pneumonic consolidation of staphylococcal etiology on both side of lung and was treated according to pneumonia guidelines. A variant of pectoral muscle was an incidental radiological finding by Computed Tomography (CT scan) of thorax and ultrasonography of chest. CT scan and ultrasonography further revealed the presence of abscess formation between accessory pectoral muscles which was drained surgically. The presence of accessory pectoral muscles & its detection in living made us interesting to study. Hence reported.

KEYWORDS: Variant pectoral muscle, Computed Tomography, Abscess formation.

CASE REPORT

A male, aged 54 years, belonging to low socio economic status, born to 3rd degree consanguineous couple, presented with the complaints of low grade fever & productive...
cough of one month duration in outpatient department in Department of Respiratory Medicine, at Velammal Medical College Hospital, Madurai. He had associated loss of appetite and loss of weight in the span of one month. No past histories of any surgical & medical consultancies. He was painter by occupation who had 15 years beedi smoking habit, but he was not an alcoholic.

On examination he was moderately built and nourished. He had no cyanosis, clubbing and peripheral lymphadenopathy, but he was mild pallor. Examination of respiratory system revealed Bilateral Normal vesicular breath sounds and few crepitations on both side of chest. Other systemic examination of cardiovascular and abdominal examination was normal. On local examination of right side of chest, there was diffuse swelling over the chest wall, extending from 3rd to 7th intercostal space. There was tenderness, warmth of the swelling, but no fluctuation present. There was point of exit of swelling near anterior axillary fold about 4 cm above right areola.

On investigation, complete blood hemogram was normal except raised total leukocyte count (TLC) of 14,500. Chest Radiograph showed bilateral patchy consolidations. Sputum and Pus culture had staphylococcus aureus growth. Ultra sonography of chest showed pus collection between pectoral muscles. CT scan thorax revealed bilateral bronchopneumonia and presence of accessory pectoral muscle on right side. Based on clinical evaluation and relevant investigation, final diagnosis was bilateral bronchopneumonia with abscess between accessory pectoral muscles on right side due to Staphylococcus aureus.

DISCUSSION
Embryologically, dorsal limb bud masses give rise to pectoralis muscle that arises from the myoblasts. These myoblasts migrate out of the last five cervical and first thoracic myotomes and develops into the developing limb buds during the fifth week of intra uterine life \[1\]. It is through the combination of migration, fusion & apoptosis of muscle cell precursors, pectoral muscles assumes final forms \[2\]. B.N. Bannur et al reported a case of accessory pectoral during routine dissection of a male cadaver in the .This muscle was found between pectoralis major & pectoralis minor. This accessory pectoral muscle was originated from 6th and 7th ribs at costo-chondral junction & inserted by fusing with fibres of pectoralis minor muscle. This accessory muscle was found only on right side. It was 2 cms broad & 14 cm long. Medial pectoral nerve was supplying this muscle, No other variations were found \[3\].
Variations of Pectorals

There will be unilateral absence of pectoral muscles as seen in Poland Syndrome associated with cutaneous syndactyly. Bilateral hypoplasia of clavicular head of pectoralis major, associated with a vascular anomaly was reported by Paraskevas et al. In this anomaly, external jugular vein was placed anteriorly. This syndrome was called “atypical Poland’s syndrome” “Epicostobrachialis” muscle arising from the lateral edge of the pectoralis major muscle and getting inserted into the medial epicondyle of the humerus was reported by Leonard P Seimon. This variation was noticed during routine dissection of a male cadaver. A case of a unilateral occurrence of a right sided accessory head of pectoralis was reported by M Loukas and G South et al.

Philip A Fabrizio et al noted an accessory muscle just lateral to the pectoralis minor, originated from external abdominal oblique muscle inserted into coracobrachialis fascia, deep to insertion of pectoralisquartus during customary dissections. He also noted another muscle called “pectoralisquartus” arising from the 5th costal cartilage & inserted into the fascia overlying coracobrachialis muscle. An extra muscle anterior to pectoralis major muscle has been reported in a 45 year old female during a left mastectomy by Katherine Marie Huber B S et al followed by immediate reconstruction surgery. So this muscle was named as Oblique Pectoralis Anterior. “Chondroepitrochlearis” muscle was reported by Voto and Weiner. This muscle has led to the restriction of limbs mobility. The presence of Pectoralisquartus along with pectoralisintermedius was reported by Arican et al in a female cadaver. In that cadaver, from the 3rd and 4th ribs gave origin Pectoralisintermedius while the Pectoralisintermedius was arising from the aponeurosis of external oblique muscle.

An elderly living male who had a diffuse swelling on the right side of the chest extending from 3rd to 7th intercostals space. On examination, accessory pectoral muscle on right side was found with pus collection which is of rare entity but there was no presence of pectoralis quartus along with pectoralis intermedius as seen in Arican et al studies. & “oblique pectoralis anterior” as seen in Huber at al studies.
FIG. 1 - There is diffuse chest wall swelling due to pus collection on right side with exit point of abscess just below ant. Axillary fold 4 cm above right areola.

Fig-2: Cut section of CT thorax shows three Pectoral muscle namely-Accessory, major and minor.

Fig-3: CT THORAX cut section shows Right chest wall abscess and Bronchopneumonia.
CONCLUSION

Accessory pectoral muscles are not commonly seen. If present, they do not cause any symptoms. They are commonly found unilateral. They may be found arising from external abdominal oblique muscle inserted into coracobrachialis fascia. They may be found between pectoralis major & pectoralis minor. In present case, these muscle were arising from 6th and 7th ribs at costo-chondral junction & inserted by fusing with fibres of pectoralis minor muscle.

This is only a an incidental finding diagnosed radiologically in a living elderly male on the right side. So presence of accessory muscles made us interesting to study this case hence reported.

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