ORIGINAL RESEARCH PAPER
Volume - 13 | Issue - 01 | January - 2024 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

EMPYEMA NECESSITANS WITH BREAST ABCSESS: A CASE REPORT

Cardiothoracic

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ABSTRACT

Introduction- Empyema necessitans is the spread of pus from pleural cavity to surrounding structure. Here we describe a case of Empyema necessitans that was spreading to the breast and causing a dilemma to think it as an isolated breast lump suspecting malignant or benign. **Case Report-** 30 year female with Empyema thoracis, on examination found to have breast lump. Patient underwent evaluation and diagnosed as Empyema necessitans extending to breast through 5-6th intercostal space. Patient was managed operatively by thoracotomy and ICD placement with drainage of pus. **Discussion-** Empyema necessitans is the extension of pus in extra pleural space. The pus collection bursts and communicates with the exterior. In our case there was history of pleural tap done 2-3 times so that might be possibility that breast abscess developed due to communication between pleural space and extra thoracis region developed because of multiple time tapping. CT scan is the best investigation to evaluate the extension of Empyema necessitans and thoracostomy with drainage of Empyema necessitans is the best treatment.

KEYWORDS

INTRODUCTION

Empyema Thoracis is defined to have pus collection in pleural cavity. Empyema necessitans is a rare complication of empyema in which the pleural infection spreads outside of the pleural space to involve the soft tissues of the chest wall. Most cases of empyema necessitans are related to Mycobacterium tuberculosis and, less commonly, to Actinomyces spp. and Streptococcus spp.1 In our case Empyema necessitans involved lower inner and outer Quadrant of left breast. This presentation is unique as its clinical picture resembled carcinoma breast. In our case Mycobacterium tuberculosis was the culprit.

Case Report

A 30 year female who is nurse by occupation presented with complaint of fever on & off and breathlessness for 2 years for what she was diagnosed as pulmonary tuberculosis and prescribed the ATT and completed course. With that she got relieved.

After 1 month of normal routine lifestyle she again developed breathlessness and pain on left side of chest with fever on & off. On chest x ray pleural effusion was seen then patient was referred to Pulmonologist. In Department of Pulmonary Medicine Pleural tapping was done 2-3 times for the same but because of no improvement in symptoms patient transferred to CTVS department for required intervention.

On examination vitals of the patient were within the normal limit Pulse rate 98bpm, BP 104/72mmHg, SpO2 98% on RA, Respiratory Rate 20 per minute and patient was afebrile and marked pallor was also present. On examination trachea was shifted to right side and there was diminished vocal fermitus, stony dull on Percussion with decreased breathing sound on left side on auscultation.

There was a solitary firm to hard lump in lower inner and lower outer quadrant of left breast that was of around 12 cm immobile and non-fluctuant with enlarged axillary lymph nodes and features were suggestive of malignancy>>benign lump.

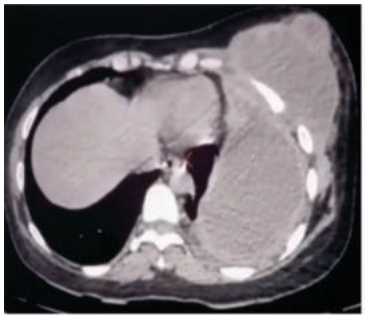
Hb of patient was 8.5, TLC 9800(granulocytes 77, lymphocytes 13)
Oncosurgery opinion was taken for the same and patient was advised to get USG done of breast and that was suggestive of Ill defined heteroechoic predominantly hypoechoic lesion of 9*5 cm with thickened overlying skin(2.6mm) in lower inner and outer quadrant of left breast and multiple axillary lymph nodes with increased central thickening and loss of hila- BIRADS-5 and radiologist advised CT scan abdomen for further evaluation.

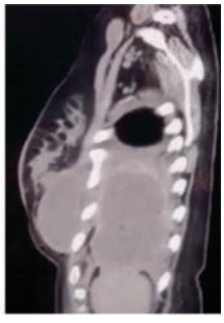
HRCT Thorax suggested free fluid with pleural thickening and associated extension of pleural fluid through left 5-6th ICS in chest wall and lower lateral quadrant of left breast and inframammary region measuring 9.67*5.77*8.52 cm (247ml) with partial collapse of left lower and left upper lobe of lung ??Active tuberculosis.

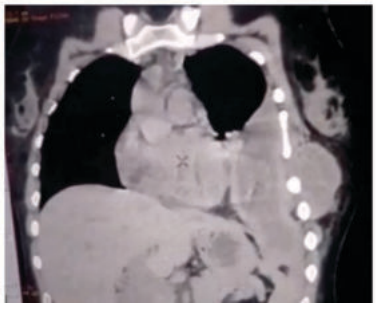
On all these evaluation patient was been planned for surgery and operated as left thoracotomy with left pleurotomy with ICD placement and drainage of breast abcsess. Post op period was uneventful. ICD removed at POD-16.

Histopathology report of excised pleura was suggesting granulomatous lesion and no evidence of malignancy.

Patient was discharged with proper advice and regular follow up and underwent for MDR-TB.







DISCUSSION

Empyema thoracis is the collection of pus in the pleural cavity. And Empyema necessitans is the extension of pus in extra pleural space.

The pus collection bursts and communicates with the exterior, forming a fistula between the pleural cavity and the skin.2

In our case patient presented with predominating symptoms of Empyema thoracis like breathlessness, fever, chest pain and no symptoms concerning breast abscess. But there was history of pleural tap done 2-3 times so that might be possibility that breast abscess developed due to communication between pleural space and extra thoracis region developed because of multiple time tapping however no evidence exists for this.

X ray chest is the first investigation of choice and Computed tomography is important in the preoperative evaluation.3

Chest X-ray and ultrasound can give clues regarding empyema necessitans but not in every case. An evidence of fluctuant lump along with radiographic and sonographic evidence of empyema thoracic raises a suspicion of empyema necessitans. CT scan is highly sensitive in delineating the grade of empyema and its extension into the surrounding structures.4

The initial treatment of empyema necessitans includes tube-thoracostomy with incision-drainage of the abscess cavity or debridement of the involved part and institution of parenteral broad spectrum antibiotics according to the culture and sensitivity.5 Our patient was managed by thoracotomy with pleurotomy with drainage of breast abcsess with ICD placement and she did well on post op period and on follow op.

REFERENCES

1. Mizell KN, Patterson KV, Carter JE. Empyema necessitatis due to methicillin-resistant Staphylococcus aureus: case report and review of the literature. J Clin Microbiol. 2008 Oct;46(10):3534-6. doi: 10.1128/JCM.00989-08. Epub 2008 Jul 30. PMID: 18667598; PMCID: PMC2566076.
2. U. Francis, E. M. Donald, and S. B. Eric. Pleural effusion and empyema," in Paediatric Surgery: A Comprehensive Text for Africa, E. A. Ameh, S. W. Bickler, B. C. Nwomeh, and D. Poenaru, Eds., pp. 299–303, Global Health Organization, Seattle,Wash, USA, 2011, http://www.global-help.org/.
3. Siddharth Lakhotia, Narendra Nath Das, Anupama Kumari. Empyema thoracis with breast abscess and surgical blade in thorax. International Journal of Contemporary Medical Research 2017;4(7):1611-1613.
4. Menon P, Kanojia RP, Rao K. Empyema thoracis: Surgical management in children J Indian Assoc Pediatr Surg. 2009;14:85–93
5. A rare presentation of empyema necessitatis Mirza, B.; Ijaz, L.; Sheikh, A. Lung India: Jan–Mar 2011 - Volume 28 - Issue 1 - p 73-74 doi: 10.4103/0970-2113.76311