

## VANISHING TUMOUR- A CASE REPORT

A. KUMAR<sup>a</sup>, A. K. GUPTA<sup>b</sup>, ADITYA KUAMR GUATAM<sup>cl</sup>, SOMNATH BHATTACHARYA<sup>d</sup> AND MOHD. HAROON KHAN<sup>e</sup><sup>abcd</sup>Department of Pulmonary Medicine UP Rural Institute of Medical Science & Reaseach Saifai Etawah, Uttar Pradesh, India<sup>e</sup>Department of Community Medicine, SHKM Govt Medical College Nalhar (Mewat), Haryana .India

## ABSTRACT

Due to the various side effects and resistance of microorganisms towards available antibiotics, new effective drugs are formulated. In this experiment, seeds of Phoenix Dactylifera (Safawy dates) were washed, dried, powdered and extracted using a soxhlet extractor in three solvents and diluted in DMSO. Microorganisms (6 gram negative and 4 gram positive) were cultured and tested for their antimicrobial activity using agar well diffusion method on Mueller Hinton Agar. The zone of inhibition was measured in mm after incubation for 24hrs at 37°C. B.subtilis and C.diphtheriae were most sensitive while S.pyogenes and P.aeruginosa were most resistant. MIC-MBC values were 2.5 and 1.25mg/ml respectively. Salmonella paratyphi A and S.dysenteriae showed synergism with honey while S.aureus and Salmonella paratyphi B showed antagonism. Synergism was seen with C.diphtheriae for Gentamicin, S.pyogenes for Chloramphenicol, Salmonella paratyphi A and S.dysenteriae for Rifampicin while antagonism with S.dysenteriae for Chloramphenicol. Phytochemical screening revealed the presence of carbohydrates, proteins, amino acids, flavonoids, phenols, glycosides and phytosterols in the sample.

Localized interlobar (oblique or minor fissure) effusions are relatively rare. But its important to merit recognition. When a patient in congestive failure presents a pulmonary mass like opacity, the possibility of interlobar effusion must be considered. The term "Phantom Lung Tumor" is applied to a transudative interlabor fluid collection in congestive heart failure, which disappears spontaneously with compensation and may reappear with each bout of cardiac decompensation. The localization is believed to be due to pleural adhesions but still pathogenesis is not yet clear (Bernard H. Feder, Stefan P. Wilk).

## Case Report

A 75yr old nondiabetic hypertensive ex-smoker male presenting to the emergency with chief complains of low grade intermittent fever for 10 days, cough with mucoid frothy sputum for 2 days with progressive breathlessness for 10 days and BL pedal and facial puffiness for 10 days. On examination he had moderate pallor with pitting BL pedal oedema, engorged neck veins, facial puffiness, SpO<sub>2</sub> 88% room air and BP 150/90. Chest examination revealed Vesicular breath sound with BL basal fine crepitations. Cardiac auscultation had tachycardia and no murmur. ECG showed sinus tachyarrhythmia. Chest X-ray showed right interlobar well delineated shadow not infrequently resembling pulmonary tumour with congested lungs. On clinical suspicion he was

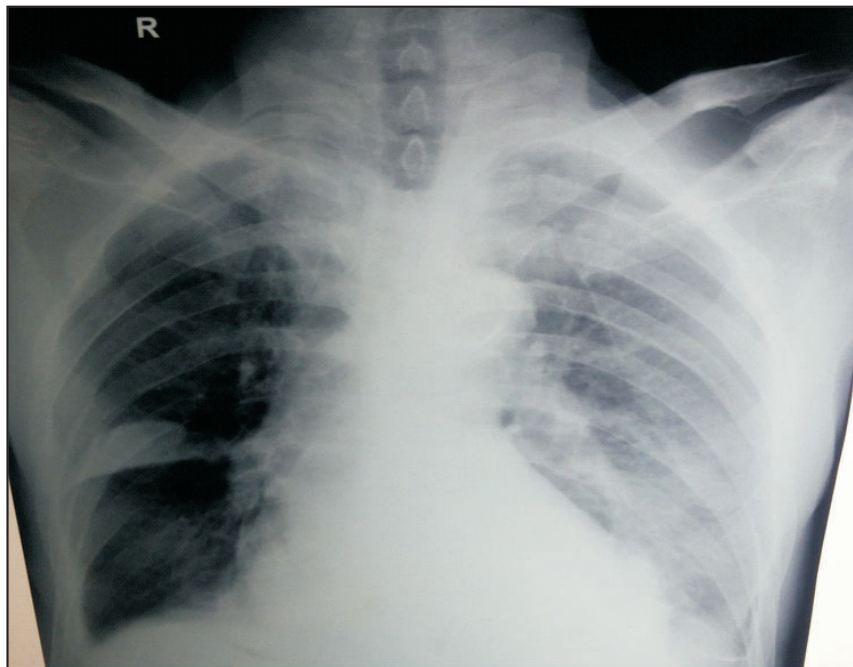
treated with frusemide, ACE inhibitors, digoxin and antibiotics. Post treatment (after 5 days) symptoms & signs improved and chest X-ray showing disappearance of the tumour displayed here.

## DISCUSSION

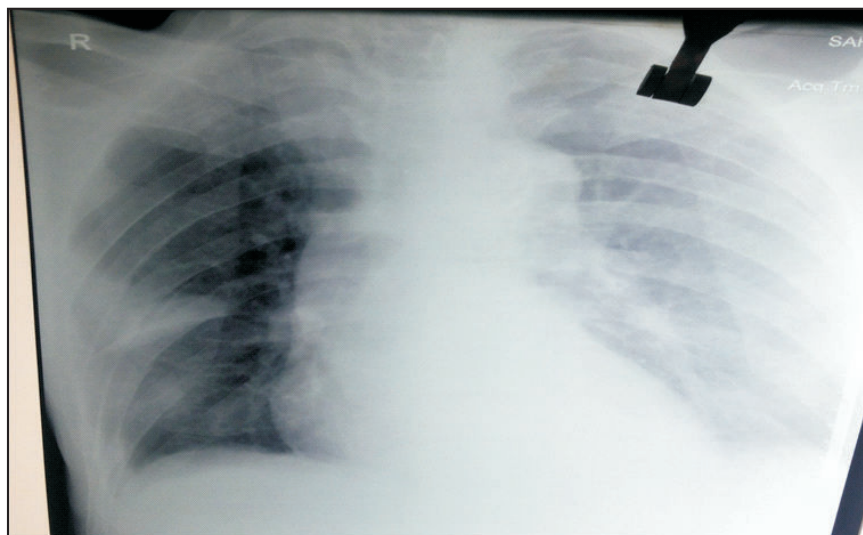
Vanishing tumour or Phantom tumour in congestive heart failure is uncommon but a well-known entity [C. E. Millard 1971]. Due to the small number of reported cases, the incidence is difficult to estimate. In 1928, Stewart was the first one to report this entity as "interlobar hydrothorax" [E. Bedford and J. L. Lovibond 1941]. Phantom tumors predominantly occur in men in the right hemithorax, with three-quarters of the reported cases in the right transverse fissure and less frequently in the oblique fissure. Simultaneous occurrences in both fissures were reported in about one-fifth of cases while in the left hemithorax were described only sporadically [K. P. Buch and R. S. Morehead 2000].

Pathogenesis, as per mostly supported hypothesis - adhesions and obliteration of the pleural space around the edge of the fissure is due to pleuritis. Phantom tumors arise whenever the transudation from the pulmonary vascular space exceeds resorptive ability of the pleural lymphatics. However, this atypical intrafissural distribution of pleural effusions can also be explained by local increase in elastic recoil by adjacent, partially atelectatic lung that yields a

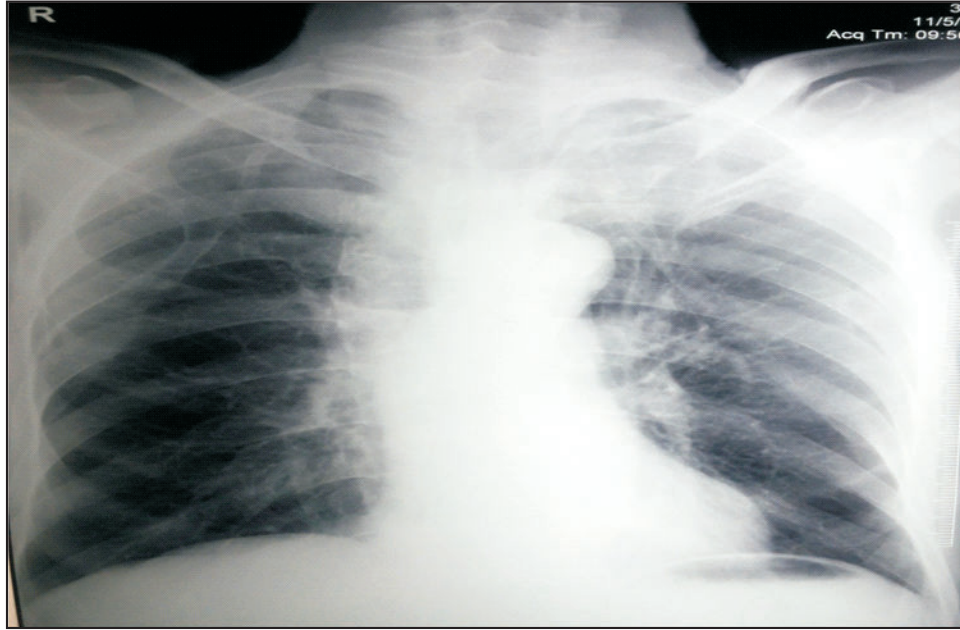
<sup>1</sup>Corresponding author



**Figure A : Chest X-ray at the Time of Presentation in the Emergency Showing a Well Delineated Shadow in the Minor /Horizontal Fissure with Congested Lung Parenchyma.**



**Figure B : Chest X-ray After 3 Days of Treatment With Diuresis, Antihypertensives, Digitalisation and Antibiotics.**



**Figure C : Chest X-ray After 5 Day of Treatment Showing Disappearance of Shadow-Vanishing Tumour**

“suction cup” effect and favors loculation of liquid even in the absence of pleural adhesions [P. Stark and A. Leung 1996]. The right-sided predilection of phantom tumor is best explained by the greater hydrostatic pressure existing on this side in comparison with left in congestive heart failure which results in impaired venous and lymphatic drainage causing loculation of fluid [J. G. Rabinowitz et al 1978]. Differential diagnosis of loculated pleural effusions within the fissure includes -

- A. Transudates - left ventricular failure or renal failure,
- B. Exudates - parapneumonic pleural effusions, malignant pleural effusions, and benign asbestos-related pleural effusions, hemothorax, chylothorax, and fibrous tumors originating from the visceral pleura of the interlobar fissure [B. M. Haus et al 2003].

In our case patient developed lower respiratory tract infection which precipitated the event of congestive cardiac failure in this hypertensive patient. Hence he responded

well to antibiotics and diuresis antihypertensives and digitalisation. Symptoms improved and radiological shadows cleared with subsequent days to follow (3 to 5 days).

#### REFERENCES

- Bernard H. Feder, Stefan P. Wilk. Localized Interlobar Effusion in Heart Failure: Phantom Lung Tumor.
- W. I. Geffer, K. R. Boucot, and E. W. Marshall, “Localized interlobar effusion in congestive heart failure; vanishing tumor of the lung,” *Circulation*, 1950; 2(3):336-343.
- C. E. Millard, “Vanishing of phantom tumor of the lung localized interlobar effusion in congestive heart failure,” *Chest* 1971; 59(6):675-677.
- D. E. Bedford and J. L. Lovibond, “Hydrothorax in heart failure,” *British Heart Journal*. 1941; 3(2): 93-111.
- K. P. Buch and R. S. Morehead, “Multiple left-sided vanishing tumors,” *Chest* 2000; 118(5):1486-1489.

**KUMAR ET AL. : VANISHING TUMOUR-A CASE REPORT**

- P.Stark and A. Leung, Effects of lobar atelectasis on the distribution of pleural effusion and pneumothorax. *Journal of Thoracic Imaging* 1996;11(2), 145-149.
- J. G. Rabinowitz and T. Kongtawng, Loculated interlobar air fluid collection in congestive heart failure, *Chest* 1978; 74(6): 681-683.
- B. M. Haus, P. Stark, S. L. Shofer, and W.G.Kuschner, Massive Pulmonary pseudotumor, *Ches* 2003;124 (2): 758-760.