

**Research Article**

Clinical Presentation & Management of hydro pneumothorax (Broncho Pleural Fistula) (B.P.F.)

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Abstract

Introduction: *Hydropneumothorax is an abnormal presence of air and fluid in pleural space.*

Aim: *To Study signs and symptoms, causes & treatment modalities for hydropneumothorax.*

Materials & Method: *Patients admitted from 2017 to 2018 studied with detailed history, lab investigation & treatment given recorded. Intercostal tube inserted & patients were followed for 3 months.*

Result: *80 Patients were studied T.B. was cause in 75% patients then bacterial infection in 11.25% & COPD in 12.5, malignancy in 1.25% patients. All patients required ICD tube insertion with approximately 15-20 days.*

Conclusion: *Most patients presented with signs of cardiorespiratory distress and pleural fluid analysis is most important in finding diagnosis. T.B. is most common cause & ICD with long duration with antimicrobial chemotherapy is the management.*

Keywords: *Tuberculosis, intercostals drainage, hydropneumothorax (B.P.F.)*

Introduction

Hydropneumothorax (B.P.F.) Broncho pleural fistula is the abnormal presence of air and fluid in pleural space. The knowledge of B.P.F. dates back to the days of ancient Greece^(3,4).

Materials and Methods

A prospective study conducted from 2017 to 2018 on 80 patients. Only patients of B.P.F. were diagnosed on clinical & radiological ground were considered. Patients with written consent and inclusion criteria selected for study. All patients enquired about signs, symptoms and noted with associated major illness. Routine laboratory investigation done. Pleural fluid sent to pathology,

microbiology and biochemical tests. CT scan done in whom diagnosis could not be established by above laboratory study. Patients were followed up for three months with ICD status and follow up X-ray examination. ICD tube was clamped and removed when air leak sound stopped and drain below 50 ml in 24 hours with full lung expansion.

Results

Eighty patients of B.P.F. included in whom found breathlessness in 90% patients, cough in 80% patients, Chest pain in 75% patients and in almost all loss of appetite with history of TB in 40% patients. DM in 10%, HIV (+ve) in 20%, Smoking in 20%, Malignancy 1.25%, Sptum (+ve) in 40%.

On pleural fluid study most were exudative with increase protein, decrease glucose, few with increase polymorphs. Pleural fluid AFB (+ve) 20%, bacteria in 10%. It can possible for etiological diagnosis on basis of laboratory study remaining are advised for CT scan with contrast for diagnosis. So causes for B.P.F. (Hydropneumothorax) .

T.B.	75%
Malignancy	1.25%
Bacterial	11.25%
COPD	12.5 %

All patients treated with intercoastal tube insertion for average 3 months follow up. In which 78 patients removed ICD within 15-20 days and 2 were referred to higher center.

Discussion

In this study majority patients presented with cough, loss of appetite, breathlessness, chest pain. Tuberculosis being common cause in all the patients.⁽⁸⁾ In our study pleural fluid study with ADA examination by lights criteria were remarked effective in achieving goal.⁽⁵⁾ All plural fluid study were exudative with ADA increase in 75%. In T.B. patients determination of ADA was high accuracy for diagnosis of hydropneumothorax.^(10,7) In rest 25% increase polymorphs on plural fluid was there. CT thorax with contrast played major role in diagnosing rest of patient. ICD insertion with successful outcome with full lung expansion in 97.5% and 2.5% referred higher center ^(6,8). This study matches to ‘Clinical profile, etiology and management of hydropneumothorax: An Indian experience.’⁽¹⁾. Failure to re-expand after ICD in 2.5% matches to my study^(2,9).

Conclusion

From our study most patients presented with signs and symptoms of cardiorespiratory distress. Plural fluid study with ADA is most important for diagnosis of hydropneumothorax. ICD insertion

with anti microbial chemotherapy is treatment modality for successful outcome in most patients.

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