

Int. J. New. Chem., Special 2022. (Winter)

## **International Journal of New Chemistry**

Published online in <a href="http://www.ijnc.ir/">http://www.ijnc.ir/</a>.

Open Access

Print ISSN: 2645-7237

**Online ISSN: 2383-188x** 



## **Original Research Article**

## Frequency and Causes of Fluid Accumulation in the Adjacent Space in Patients Admitted to Teaching Hospitals in Urmia

Seifollah Rezaie<sup>1</sup>, 2Mahdia Gholamnejad<sup>2\*</sup>, Yahya Safaie<sup>3</sup>

<sup>1</sup> Assistant Professor of Thoracic Surgery, Department of General Surgery, School of Medicine, Urmia University of Medical Sciences, Urmia, Iran (Email: Rezaei.s@umsu.ac.ir/ ORCID: 0000-0002-1654-6185)

<sup>2</sup> Pulmonary Decease Doctor, School of Medicine, Urmia University of Medical Sciences, Urmia, Iran

<sup>3</sup> General Doctor, School of Medicine, Urmia University of Medical Sciences, Urmia, Iran

## ABSTRACT

Introduction: Therefore, early and timely treatment of the disease, as a result of reducing the time and burden of diagnostic and treatment costs on the community is very important, so this study aims to investigate the frequency of pleural effusions and the frequency of each type of effusion in all patients with Plural effusion was performed in Urmia hospitals. Material and Methods: The results of the analyzes included the amount of protein, lactate dehydrogenase (LDH) and pleural fluid and serum glucose, the ratio of protein, LDH and pleural fluid glucose to serum, the level of pleural fluid adenosine deaminase (ADA), smear and sputum culture for BK (bacillus tuberculosis). As well as common microbes of hot staining, smear and culture of pleural fluid, cytology of pleural fluid and the result of pleural biopsy (if performed for the patient), type of pleural effusion were recorded for all patients participating in the study. Results: 65 cases (1.59%) of right hemisphere involvement and 37 cases (6.33%) of bilateral involvement were reported. In terms of causes of transudative pleural effusion, in 58 cases (2.53%) congestive heart failure, 36 cases (33%) chronic renal failure, 8 cases (3.7%) liver cirrhosis, 3 cases (8.2%) Nephrotic syndrome was reported in 5 cases (6.4%) of open heart surgery. Conclusion: Based on the findings of this study, exudative pleural effusion was the most common type of pleural effusion, right hemithorax involvement, in all three types of exudative, transudative and empirical pleural effusion, right hemithorax involvement was the most common.

**Key words:** Thoracoscopy, Decortication, Empyema, VATS