



CODEN [USA]: IAJPBB

ISSN: 2349-7750

INDO AMERICAN JOURNAL OF PHARMACEUTICAL SCIENCES

Available online at: <http://www.iajps.com>

Research Article

SPECTRUM OF PLEURAL EFFUSION DUE TO RENAL PATHOLOGIES AT TERTIARY CARE HOSPITAL

¹Dr. Zakir Hussain Rajpar, ¹Dr. Abdul Haque Khan ¹Dr. Rashid Ahmed Khan,
²Dr. Hamid Nawaz Ali Memon, ³Dr. Samar Raza and ¹Dr. Almas Jahejo

¹Liaquat University of Medical and Health Sciences (LUMHS) Jamshoro, ²Zulekha Hospital
Dubai United Arab Emirates, ³Liaquat University Hospital Hyderabad / Jamshoro

Article Received: December 2018 Accepted: February 2019 Published: March 2019

Abstract:

Objective: To determine the spectrum of pleural effusion due to renal pathologies at tertiary care hospital.

Patients And Methods: The one year cross sectional study was conducted at tertiary care hospital. All the patients either gender who were diagnosed as chronic kidney disease (on haemodialysis) were included in the study. These patients were allowed to undergo necessary investigations and treatment. All the specific patients had thorough clinical history, relevant clinical examination and important investigations to explore the pulmonary pathology (pleural effusion) while the frequency / percentages (%) and means \pm SD computed for study variables.

Results: During one year study period total fifty patients with pleural effusion were explored and studied. The frequency for male and female population was 32 (64%) and 18 (36%) with mean \pm sd for age of male and female individuals was 59.82 ± 7.83 and 53.85 ± 6.94 respectively. Gender male 30 (60%), female 20 (40%), pleural effusion 32 (64%). The cause includes idiopathic (unknown) 05 (10%), over hydration 15 (30%), heart failure 06 (12%), parapneumonic effusion 08 (16%), uremic pleuritis 05 (10%), tuberculous pleurisy 06 (12%), malignancy (prostate cancer) 05 (10%).

Conclusion: Pleural effusion is regular in hospitalized patients getting long haul hemodialysis due to chronic kidney disorders.

Keywords: Pleural effusion, Kidney, Lung and Renal disease.

Corresponding author:**Dr. Samar Raza,**

Liaquat University Hospital Hyderabad / Jamshoro.

Email: zulfikar229@hotmail.com

QR code



Please cite this article in press Samar Raza et al., *Spectrum Of Pleural Effusion Due To Renal Pathologies At Tertiary Care Hospital.*, Indo Am. J. P. Sci, 2019; 06(03).

INTRODUCTION:

The number of individuals with terminal renal disease who require renal substitution treatment (RRT) is rising and matter of concerned [1]. Despite the fact that an expanding number of patients have working renal transplants, the accessibility of organs for transplantation has not developed proportionately with the increment in patients treated for end-organize renal infection (ESRD) [2]. Focus hemodialysis remains the most common treatment methodology today [3]. As an outcome of the extended utilization of long haul hemodialysis treatment and the all-encompassing life ranges, difficulties of interminable renal disappointment are being experienced with expanding recurrence in uremic patients [4]. Such patients create numerous thoracic and extrathoracic issues. The most continuous conditions incorporate uremic pleuritis and pericarditis, uremic pneumonia, aspiratory contamination, and metastatic pneumonic calcification [5]. We reflectively broke down the cross sectional study of patients getting long haul hemodialysis to all the more likely comprehend the range of the pleural ailment in these patients.

PATIENTS AND METHODS:

The one year cross sectional study was conducted at tertiary care hospital. All the patients either gender who were diagnosed as chronic kidney disease (on haemodialysis) were included in the study. These patients were allowed to undergo necessary investigations and treatment while the subjects excluded from study were known cases for pulmonary diseases, malignancy and the non cooperative patients who not interested to participate in the study. All the specific patients had thorough clinical history, relevant clinical examination and important investigations to explore the pulmonary pathology (pleural effusion) whereas the data was collected on proforma while analyzed in SPSS to manipulate the frequencies, percentages and mean \pm SD.

RESULTS:

During one year study period total fifty patients with pleural effusion were explored and studied. The frequency for male and female population was 32 (64%) and 18 (36%) with mean \pm SD for age of male and female individuals was 59.82 ± 7.83 and 53.85 ± 6.94 respectively. The demographical and clinical profile of study population is presented in Table 1.

TABLE 1: THE DEMOGRAPHICAL AND CLINICAL PROFILE OF STUDY POPULATION

| Parameter | Frequency (N=50) | Percentage (%) |
|------------------------------|------------------|----------------|
| AGE (yrs) | | |
| 30-39 | 05 | 10 |
| 40-49 | 14 | 28 |
| 50-59 | 18 | 36 |
| 60-69 | 09 | 18 |
| 70+ | 04 | 8.0 |
| | | |
| GENDER | | |
| Male | 30 | 60 |
| Female | 20 | 40 |
| | | |
| PLEURAL EFFUSION | | |
| Yes | 32 | 64 |
| No | 18 | 36 |
| | | |
| CAUSE / ETIOLOGY | | |
| Idiopathic (unknown) | 05 | 10 |
| Over hydration | 15 | 30 |
| Heart failure | 06 | 12 |
| Parapneumonic effusion | 08 | 16 |
| Uremic pleuritis | 05 | 10 |
| Tuberculous pleurisy | 06 | 12 |
| Malignancy (prostate cancer) | 05 | 10 |

DISCUSSION:

We found that the frequency of pleural radiation in patients accepting long haul hemodialysis admitted to the medical clinic was 20.2%. In present series 12% rate of pleural effusion in patients with congestive heart disappointment conceded to a coronary consideration unit, idiopathic (unknown) 05 (10%), over hydration 15 (30%), parapneumonic effusion 08 (16%), uremic pleuritis 05 (10%), tuberculous pleurisy 06 (12%), malignancy (prostate cancer) 05 (10%). Overhydration was the most widely recognized reason for pleural emission in the present investigation. The thoracic difficulties of hemodialysis are for the most part identified with a poor administration of the liquid equalization.

Uremic pleurisy comes about because of necrotizing fibrinous irritation and regularly results in exudate development in light of the fact that of the fiery increment in fine porousness. The recurrence of bronchopulmonary diseases in uremic patients is more prominent than that in whatever is left of the populace because of despondency of humoral and cell insusceptibility and to decreased macrophage movement.

We found that 16% patients had parapneumonic radiations. In spite of the revealed expanded danger of tuberculous contamination, we set up that 12% of the patients had tuberculous pleurisy. The pleural emanations in every one of these patients were one-sided.

In spite of the potential dangers of thoracentesis in uremic patients, pleural liquid ought to be gotten for investigation. At the point when concoction highlights of a transudate are illustrated, the potential reason ought to be looked for and specific consideration ought to be paid to salt and water abundance.

CONCLUSION:

Pleural effusion is regular in hospitalized patients getting long haul hemodialysis due to chronic kidney disorders. Overhydration was the most widely recognized analysis bringing about pleural radiation.

REFERENCES:

1. Corriere JN, Miller WT, Murphy JJ. Hydronephrosis as a cause of pleural effusion. *Radiology*. 1968 Jan;90(1):79-84.
2. Marel M, Zrutova M, Stasny B, Light RW. The incidence of pleural effusion in a well-defined region: epidemiologic study in central Bohemia. *Chest*. 1993 Nov 1;104(5):1486-9.
3. Chetty KG. Transudative pleural effusions. *Clinics in chest medicine*. 1985 Mar;6(1):49-54.
4. Leuallen EC, Carr DT. Pleural effusion: a statistical study of 436 patients. *New England Journal of Medicine*. 1955 Jan 20;252(3):79-83.
5. Light RW. Pleural effusion. *Encyclopedia of Molecular Mechanisms of Disease*. 2009:1656-7.
6. Jarratt MJ, Sahn SA: Pleural effusions in hospitalized patients receiving long term hemodialysis. *Chest* 1995;108:470.
7. Wiener-Kronish JP, Matthay MA, Callen PW, et al: Relationship of pleural effusions to pulmonary hemodynamics in patients with congestive heart failure. *Am Rev Respir Dis*. 1985; 132:1253.
8. Taryle DA, Potts DE, Sahn SA: The incidence and clinical correlates of parapneumonic effusions in pneumococcal pneumonia. *Chest*. 1978; 74:170
9. Johnston RF, Loo RV: Hepatic hydrothorax: studies to determine the source of the fluid and report of 13 cases. *Ann Intern Med*. 1964; 61:385
10. Chernow B, Sahn SA: Carcinomatous involvement of the pleura: an analysis of 96 patients. *Am J Med*. 1977; 63:695.