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**Research Article** 

# PULMONARY DISORDERS IN RELATION TO CHRONIC RENAL DISEASES

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### Abstract:

**Objective:** To determine the pulmonary disorders in relation to chronic renal diseases

**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 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 pathologies while the frequency / percentages (%) and means ±SD computed for study variables.

**Results:** During one year study period total fifty patients with chronic kidney disease 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 54.73 $\pm$ 8.84 and 52.64 $\pm$ 6.54 respectively. gender male 32 (64%), female 18 (36%), pulmonary manifestation includes pulmonary edema 07 (14%), pleural effusion 16 (32%), pneumonia 14 (28%), pulmonary emboli 06 (12%), impaired pulmonary function 07 (14%).

Conclusion: Documentation of pulmonary function is important in patients with kidney disorders.

Keywords: Lung, Kidney and pulmonary.

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### **INTRODUCTION:**

Physiologically, the lungs and kidneys are complicatedly related, not least as homeostatic organs controlling the phone electrolyte and corrosive base status that ensure the best microenvironment for cell work [1]. Per-ceptually, aspiratory variations from the norm may emerge as an immediate outcome of renal ailment (essential results) or through summed up fundamental procedures that explicitly include both organ frameworks associatively [2, 3]. The outcomes might be characterized on a pathophysiologiocal premise dependent on the resultant practical de-rangement in renal homeostatic systems [4]. The last mentioned, supposed aspiratory renal disorder, is traditionally exemplified by the vasculitidis, granulomatous illnesses, intoxi-cations and sepsis [5]. Aspiratory confusions of dialysis and transplantation are auxiliary results and won't be examined.

## **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 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 pathologies 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 chronic kidney disease 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 54.73 $\pm$ 8.84 and 52.64 $\pm$ 6.54 respectively. The demographical and clinical profile of study population is presented in Table 1.

| Parameter                   | Frequency (N=50) | Percentage (%) |
|-----------------------------|------------------|----------------|
| AGE (yrs)                   |                  |                |
| 30-39                       | 08               | 16             |
| 40-49                       | 16               | 32             |
| 50-59                       | 13               | 26             |
| 60-69                       | 08               | 16             |
| 70+                         | 05               | 10             |
| GENDER                      |                  |                |
| Male                        | 32               | 64             |
| Female                      | 18               | 36             |
| Pulmonary manifestation     |                  |                |
| Pulmonary edema             | 07               | 14             |
| Pleural effusion            | 16               | 32             |
| Pneumonia                   | 14               | 28             |
| Pulmonary emboli            | 06               | 12             |
| Impaired pulmonary function | 07               | 14             |

TABLE 1: THE DEMOGRAPHICAL AND CLINICAL PROFILE OF STUDY POPULATION

#### **DISCUSSION:**

Pulmonary edema in the setting of renal sickness might be multifactorial basic the different pathogenetic components in charge of its clinical event. It can by and large be delegated principally (renal pneumonic edema/renal asthma/noncardiogenic pulmo-nary edema) or auxiliary to the renal heart results. Different mechanical and hemodynamic confusions in aspiratory work are perceived in patients with renal infection [6]. Most disturbances are sub clinical. Abnormalities in lung work incorporate changes in respiratory elements, muscle capacities and gas exchange. The last is by all accounts the most genuine and is likely the aftereffect of aspiratory fibrosis subsequent to incessant or repetitive aspiratory edema, uremic pneumonitis and additionally aspiratory microcalcification [7].

Pleural effusion is common in patients with CRF and can be secondary to liquid over-burden, renal cardiovascular illness, aspiratory embolism or tuber-culous contamination. Be that as it may, pleural radiations essentially identified with uremia may likewise be seen [8]. These might be one-sided or reciprocal and range in size from little to monstrous.

Pneumonia is accounted for to convolute no less than 33% of all scenes of intense renal disappointment. Similarly, CRF and the nephrotic disorder are related with significant insusceptible shortages that incline patients with these conditions to diseases [9]. Immune shortages include both the humoral and cell arms of the safe reaction.

A hyper-coagulable state is one of the hallcharacteristics of the nephrotic disorder [10]. Renal vein thrombosis may entangle the nephrotic disorder, traditionally of the membranous kind. It might be one-sided or reciprocal and may reach out to include the second rate vena cava [11].

#### **CONCLUSION:**

Documentation of pulmonary function is important in patients with kidney disorders and abnormalities of lung function observed after the onset of pulmonary complications needs to be interpreted and explored with caution.

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