



## A case series of Interstitial lung disease

### KEYWORDS

Interstitial Lung Disease, Spirometry.

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### ABSTRACT

*There are very few studies done on Interstitial Lung Diseases (ILD) in India. We conducted a retrospective study of 10 patients of high resolution computed tomography (HRCT) proven interstitial lung diseases in tertiary care centre. Availability of non-invasive investigation like HRCT chest has increased our early recognitions of ILDs.*

**Introduction:** Common clinical, radiological and patho physiological features form the basis collectively referring to a complex group of disorders as the interstitial lung diseases<sup>1</sup>. The prominent feature in interstitial lung diseases is fibrosis in interstitium, which produces derangement of alveolar architecture and loss of functional alveolar capillary units. Diagnosis can be made by the combination of clinical and roentgenographic features and pulmonary function test. Histopathological confirmation is not required in most of the cases. Development of high resolution computed tomography and availability of video assisted thorascopic lung biopsy has added to our diagnostic strategies. There are very few studies done on interstitial lung diseases. The present study was therefore planned to analyze the spectrum of ILDs. Our aim of the study was to find out common presentations, signs, spirometry patterns and common etiology of interstitial lung disease.

**Material and Methods:** A study of total 10 patients was done. This was a retrospective, observational, epidemiological study. Patient initially suspected to have ILD, undergo HRCT chest. Patient who were confirmed by hrct<sup>2</sup> to have ILD, were included in this study. Careful history, general and systemic examination was done followed by HRCT chest and spirometry. Sputum examination including routine microscopy, AFB, gramstain, culture and sensitivity were carried out in patient with productive cough. HRCT of chest, immunological tests like ANA, anti- dsDNA were also done in all patients.

**Results:** The mean age of the patient was 60.5 years. In our study 60% were male patients, while 40% were female patients. Most of the patients presented with breathlessness on exertion (100%) and cough was usually dry (60%) is nature. Clubbing was present in 40% of patients. In respiratory system examination 60% had bilateral basal Velcro crepitations which are dry and inspiratory. HRCT chest was carried out in all cases. A confirmed diagnosis of ILD<sup>3</sup> made with HRCT chest is based on presence of bilateral, predominantly basal, subpleural ground glass pattern with honeycombing occasionally. In our study prominent HRCT pattern was ground glass in 80% of cases with 20% of cases showing honeycombing.

Spirometry was done in all 10 patients. In most of the cases FEV1/FVC ratio was increased with 70% of cases showing FEV1/FVC >100%.

**Discussion:** In present study peak incidence was found between 50-60 years of age group. Jindal et al<sup>3</sup> also correlate with peak incidence

between 30 to 59 years. Male and female incidence was 42.4% and 57.4% in Jindal et al study, while in present study 60% males and 40% women. In M.Turner et al<sup>4</sup> study, 66.8% male patients and 32.2% female patients were found. These findings are closely resembled to present study and male predominance raises possibility of occupational factor in etiology.

Dyspnoea was present in 100% cases in present study which is similar to Jindal et al<sup>3</sup>, Mahasur et al<sup>5</sup> and J.Fulmer et al. Clubbing was found in 40% cases in present study that closely resembles mahasur et al and Jindal et al study. Bilateral crepts were present in 60% of cases in present study which resembles J.Fulmer et al study. In present study patient present with in 6 months and after 6 months are equal. Honeycombing was present in 20% of cases in present study which Johnston et al study (15.10%) FV1 FVC was more than 90% in most of cases in present study which correlates with mahasur et al study.

**Conclusion:** Our study suggests that ILDs are not uncommon in India. ILDs must be suspected in patients with specific symptoms, signs and further investigations like HRCT test and blood investigations should be done. A good clinician can make accurate diagnosis of Interstitial Lung Disease with out a surgical lung biopsy and with a high specificity (>90%) following detailed clinical assessment. Large clinical studies also required to establish the true incidence and spectrum of diseases.

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