Clinical features and outcome of Chronic Pulmonary Aspergillosis: experience from a high tuberculosis burden country

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Objectives:

The incidence of chronic pulmonary aspergillosis (CPA) is getting high especially in high tuberculosis (TB) burden countries. However there is limited data available on CPA as a post-TB sequel and in structural lung diseases. The aim of the study is to determine the clinical characteristics and outcomes of patients with CPA in a tertiary care hospital.

Methods:

- ❖ This was a retrospective study in patients admitted with pulmonary Aspergillosis at the Aga Khan University Hospital (AKUH), Karachi, Pakistan from January 2012 to December 2016.
- ❖ All adult patients (> 18 years) admitted with a diagnosis of Aspergillosis using International Classification of Disease, Ninth Revision codes (ICD-9 1173) were identified.

Inclusion Criteria was

- Age ≥18 years
- Patient who met the criteria of CPA
- **CPA was defined as** one or more cavities with or without a fungal ball or nodules/ pleural thickening on thoracic imaging, direct evidence of *Aspergillus* infection (microscopy or culture) or an immunological response to *Aspergillus* spp. and exclusion of alternative diagnoses, all present for at least 3 months along with chronic respiratory symptoms.

Results:

- A total of **47** patients were included, who met the inclusion criteria.
- Mean age was **45 ± 15.7** years.
- Male **36(76.59%)**
- Diabetic **14(29.78%)**

Types of CPA:

- Simple Aspergilloma **23(48.93%)**
- Chronic cavitary pulmonary aspergillosis (CCPA) **20(42.55%)**
- Chronic progressive pulmonary fibrosis (CPFA) **2(4.2%)**
- Nodule **2(4.2%)**

Commonest underlying cause

Aspergillus specie

■ Fumigatus ■ Flavus ■ Niger ■ Terrus

OUTCOME:

- ❑ Surgical excision done in **23(48.93%)** while
- ❑ Itraconazole received by **31(65.95%)** patients.
- ❑ **Three** patients died due to chronic respiratory failure.

Conclusion:

- ❑ Currently the burden of CPA is raising especially in high TB burden countries like Pakistan.
- ❑ We found Simple Aspergilloma and CCPA as a commonest form of CPA.
- ❑ Further large prospective studies using Aspergillus specific IgG antibodies testing are required for better understanding of prevalence of CPA.