

HRCT and Chest X-ray findings in 802 Allergic Broncho Pulmonary Aspergillosis (ABPA) patients across 23 centers in India

Asthma, Diagnosis, Asthma – management

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Introduction: We aimed to study the radiological presentations of ABPA patients across multiple centers in India. **Methods:** Pulmonologists from 23 sites registered with the Respiratory Research Network (RRN) centers collaborated in this observational study. ABPA patients visiting the clinics underwent chest X-ray and HRCT. Patients were categorized into 3 groups based on International Society for Human and Animal Mycology (ISHAM) 2013 criteria; Group 1: meeting ISHAM criteria, Group 2: meeting partial ISHAM criteria (HRCT positive or serological positive in any 2 parameters), and Group 3: physician diagnosed, not meeting ISHAM criteria. **Results:** Among 802 patients, 37.2% (299) were in group I, 50.2% (403) in group II, and 12.4% (100) in group III. Abnormal HRCT and Chest X-ray findings are reported in the Table.

Variable	Group I (N=299)	Group II (N=403)	Group III (N=100)	P-value
	Percentage	Percentage	Percentage	
HRCT Test				
Normal	4.3%	16.1%	-	
Bronchiectasis	81.1%	68.0%	-	<0.001*
Presence of high attenuation mucus	24.9%	16.3%	-	<0.001*
Centrilobular nodules	45.9%	32.7%	-	<0.001*
Tree in bud appearance	30.2%	25.8%	-	
Chest X-ray				
Normal	15.7%	34.7%	72%	
Parallel opacities	44.7%	25.6%	25%	<0.001*
Ring Opacities	51.5%	32.7%	25%	<0.001*
Finger-in-glove	23.0%	11.8%	0%	<0.006*
Tramline opacities	40.0%	32.7%	25%	
Fleeting opacities	28.9%	31.8%	16%	

*Significant p-values <0.05

Conclusion: ABPA patients fulfilling ISHAM criteria present significant differences in HRCT and Chest X-ray finding as compared to those partially/not fulfilling the ISHAM criteria