05.01 - Airway pharmacology and treatment

53487
What is the effective pharmacotherapy for post TB COPD? An observational multicentric, real world effectiveness study from India

COPD, COPD - management, Treatments

S. Chauthmal[1], S. Bardapurkar[2], S. Bardapurkar[2], K. Panchal[3], V. V. Veerapaneni[4], V. R. Veerapaneni[4], A. Naveed[5], P. Bhattacharyya[6], K. Goli M Venkata[7], J. Unnithan[8], A. K. Singh[9], S. Dalal[10], G. Malkapuram[4], V. Bhaskar[4], M. K. Gupta[11], V. Kubal[12], A. Bhosale[10], H. Shamim[9], N. Velayuthaswamy[8], S. Krishnamurthy[8], N. Srinivasan[8], S. Madas[13], A. Sabale[14], R. Swami[1], S. Bhalare[1], N. Navale[1], D. Dhumal[1], N. Koli[1], R. Shah[15], M. Lopez[15], S. Mohanasundaram[15], J. Gogtay[15], D. Ghorpade[13], S. Salvi[13]

[1]Chest Research and Training Pvt Ltd - Pune (India), [2]Shree Nursing Home - Aurangabad (India), [3]Swastik Lungs Care & Allergy Clinic - Ahmedabad (India), [4]Swasa Hospital - Hyderabad (India), [5]Chest Care clinic - Hyderabad (India), [6]Institute of Pulmocare & Research - Kolkata (India), [7]Aditya Multi-speciality Hospital - Guntur (India), [8]Institute of Lung Care & Research, Hindusthan Hospital - Coimbatore (India), [9]Chandan Hospital, Vijayant Khand - Lucknow (India), [10]Kalyan Hospital - Vadodara (India), [11]AANCH Hospital - Jaipur (India), [12]Cough Clinic - Mumbai (India), [13]Chest Research and Training Pvt Ltd, Pulmocare Research and Education (PURE) Foundation - Pune (India), [14]Pulmocare Research and Education (PURE) Foundation - Pune (India), [15]Cipla Ltd - Mumbai (India)

Background: Among the 155 million estimated TB survivors globally, 35-40 million are from India. The most common post TB sequela is COPD but its effective pharmacotherapy remains unknown. We aimed to study the real life treatment outcomes with different inhaled pharmacotherapies in this study population.

Methods: 181 post-TB COPD patients (Post bronchodilator FEV1/FVC<70%), from 12 respiratory clinics across India participated. Demographics, symptoms, hospitalizations due to exacerbations, CAT scores and spirometry were captured at baseline and 3 months after LABA+LAMA, LABA+ICS and LABA+LAMA+ICS treatments.

Results: We present the interim results of 95 subjects who completed the study in Table 1.

Variables	LABA + LAMA (n=31)		LABA + ICS (n=11)		LABA + LAMA + ICS (n=53)	
Age years (Mean ± SD)	63.3 ± 9.1		61.3 ± 12.3		67.0 ± 10.1	
Gender (M, F) %	77.4, 22.6		63.6, 36.4		71.7, 28.3	
Smokers (%)	55 %		36 %		43%	
	Baseline vs 3 months Follow up	**p-Value**	**Baseline vs 3 months Follow up**	**p-Value**	**Baseline vs 3 months Follow up**	**p-Value**
Persistent Cough (%)	87 vs 61	0.03	73 vs 36	0.12	72 vs 57	0.09
Shortness of breath (%)	100 vs 65	<0.001	100 vs 64	0.04	100 vs 83	0.002
Wheeze (%)	71 vs 29	<0.001	18 vs 27	0.62	57 vs 40	0.03
Chest Tightness (%)	48 vs 32	0.21	36 vs 9	0.12	45 vs 25	0.02
Hospitalizations due to exacerbations (%)	16 vs 0	0.03	18.1 vs 9	0.62	11 vs 0	0.01
FEV1 Pre (L) (Mean ± SD)	0.9 ± 0.4 vs 1.1±0.5	0.002	1.2 ± 0.6 vs 1.2 ± 0.6	0.75	0.7 ± 0.2 vs 0.8 ± 0.3	0.009
FVC Pre (L) (Mean ± SD)	1.8 ± 0.8 vs 2.0 ± 0.8	0.001	2.0 ± 1.0 vs 2.0 ± 0.8	0.52	1.5 ± 0.5 vs 1.6 ± 0.5	0.004
COPD Assessment Test (CAT) (Mean ± SD)	15.6 ± 6.0 vs 7.7 ± 4.7	<0.001	14.7 ± 7.4 vs 10.3 ± 6.00	0.01	16.3 ± 6.6 vs 9.3 ± 5.3	<0.001

Conclusion: In this observational, real-world, effectiveness study, post TB COPD patients receiving LABA + LAMA and LABA+LAMA+ICS showed significant improvement in symptoms, CAT scores, and spirometry indices. The low sample size in LABA+ICS may have been responsible for poor clinical and spirometry outcomes. Randomized, controlled trails will help to establish appropriate pharmacotherapy.