Managing intractable chronic cough- "Always look for non obvious cause"

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- 69 year old male, Auto rickshaw driver.
- Reformed Smoker.
- History of sputum positive pulmonary tuberculosis 15 years back, took treatment for 6 months.

CHIEF COMPLAINTS:

1. **Cough-** On and off since 2 years worsened since 1 week – With expectoration of green coloured sputum.
2. **Breathlessness-** 2 years, MMRC Grade 1, increased since 1 week associated with wheeze with no orthopnoea or PND.

- No history of fever/chest pain.
- For the last 15 years patient has been having episodes of cough, fever, breathlessness for which he used to take medicines and was hospitalised for similar complaints 4 years back.

ON EXAMINATION

- **Conscious, Oriented.**
- **General Physical Examination:** WNL
- **Vitals:**

  Afebrile

  PR : 112 bpm, regular, good volume, all peripheral pulses well felt

  BP : 130/80 mmHg, Right arm supine position

  RR : 16/min

  SpO_2: 87% on room air, 93% on FiO_2 – 32%

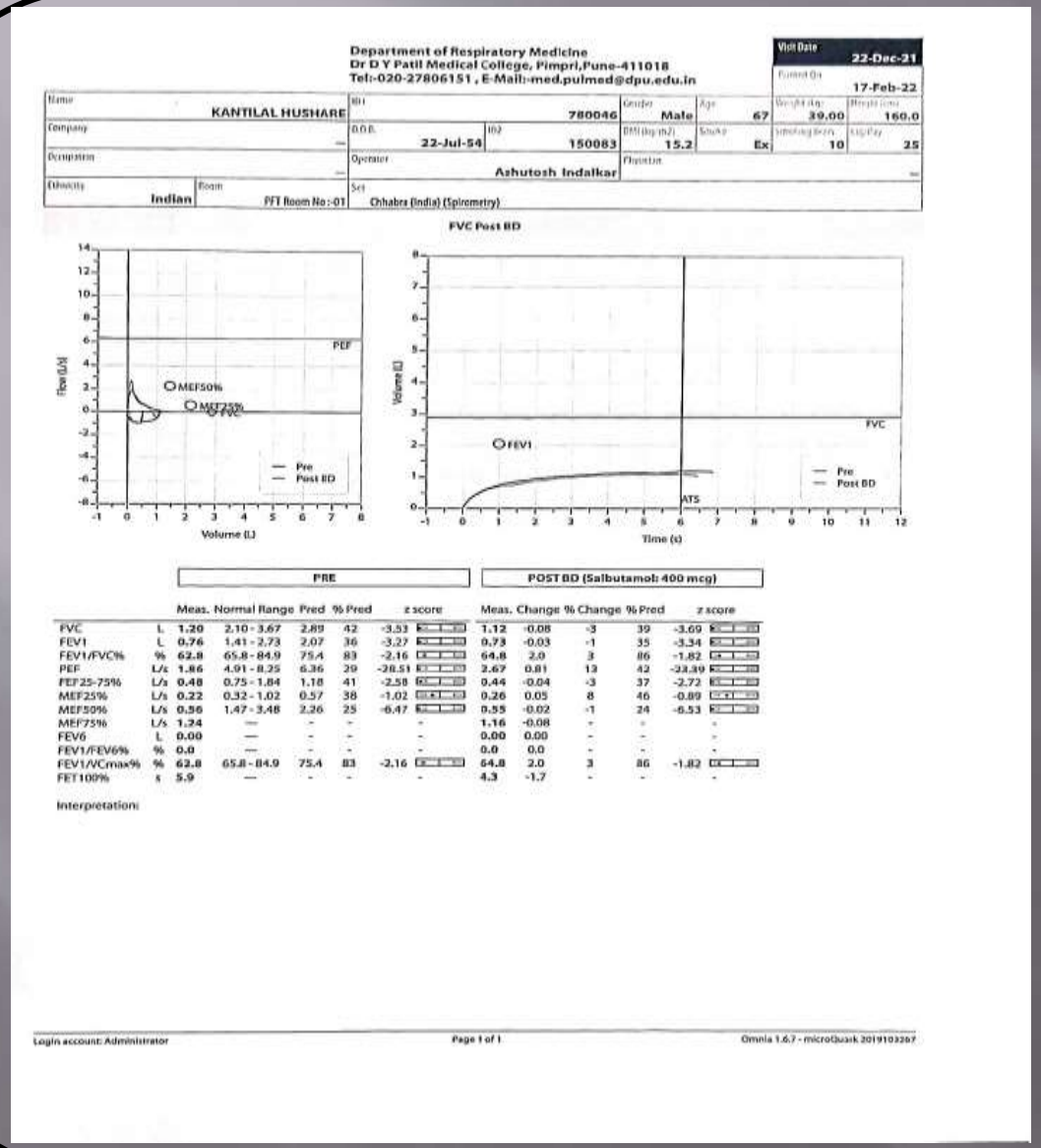
ON EXAMINATION

- **R/S:** ***Bilateral NVBS with bilateral polyphonic rhonchi, coarse crepts and right sided volume loss.***
- **CVS:** S1,S2 heard, no murmur
- **P/A:** Soft, non tender; No organomegaly; Bowel sounds heard
- **CNS:** No focal neurological deficit

INVESTIGATIONS

Hb	12.80	D- dimer	492.2
TLC	11,100	Urine R/M	WNL
Platelets	2,65,000	HbA1C	5.60
LFT	WNL	CK-MB	44
RFT	WNL	Troponin-I	15.10
LDH	168	Na+/k+	140/3.5
CRP	15.50	Sputum-zn /gm/c&s	Negative
Ferritin	56.70	COVID RTPCR	Negative

INVESTIGATIONS



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Visit Date 22-Dec-21
17-Feb-22

Name	KANTILAL HUSHARE	ID	780046	Gender Male	Age 67	39.00	160.0
Company		D.O.B. 22-Jul-54	ID2 150083	BMI (kg/m2) 15.2	Smoke Ex	10	25
Comment		Operator Ashutosh Indalkar		Physician			
Ethnicity Indian	Room PFT Room No : 01	Set Chhabra (India) (Spirometry)					

FVC Post BD

		PRE					POST BD (Salbutamol: 400 mcg)				
		Meas.	Normal Range	Pred	% Pred	z score	Meas.	Change	% Change	% Pred	z score
FVC	L	1.20	2.10 - 3.67	2.89	42	-3.53	1.12	-0.08	-3	39	-3.69
FEV1	L	0.76	1.41 - 2.73	2.07	36	-3.27	0.73	-0.03	-1	35	-3.34
FEV1/FVC%	%	62.8	65.8 - 84.9	75.4	83	-2.16	64.8	2.0	3	86	-1.82
PEF	L/s	1.86	4.91 - 8.25	6.36	29	-20.51	2.67	0.81	13	42	-23.39
FEF25-75%	L/s	0.48	0.75 - 1.84	1.18	41	-2.58	0.44	-0.04	-3	37	-2.72
MEF25%	L/s	0.22	0.32 - 1.02	0.57	38	-1.02	0.26	0.05	8	46	-0.89
MEF50%	L/s	0.56	1.47 - 3.48	2.26	25	-6.47	0.55	-0.02	-1	24	-6.53
MEF75%	L/s	1.24	—	-	-	-	1.16	-0.08	-	-	-
FEV6	L	0.00	—	-	-	-	0.00	0.00	-	-	-
FEV1/FEV6%	%	0.0	—	-	-	-	0.0	0.0	-	-	-
FEV1/VCmax%	%	62.8	65.8 - 84.9	75.4	83	-2.16	64.8	2.0	3	86	-1.82
FET100%	s	5.9	—	-	-	-	4.3	-1.7	-	-	-

Interpretation:

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Spirometry: Mixed defect
1)Severe obstruction with no significant postbronchodilator reversibility.
2) Severe restriction.

INVESTIGATIONS

CXR:

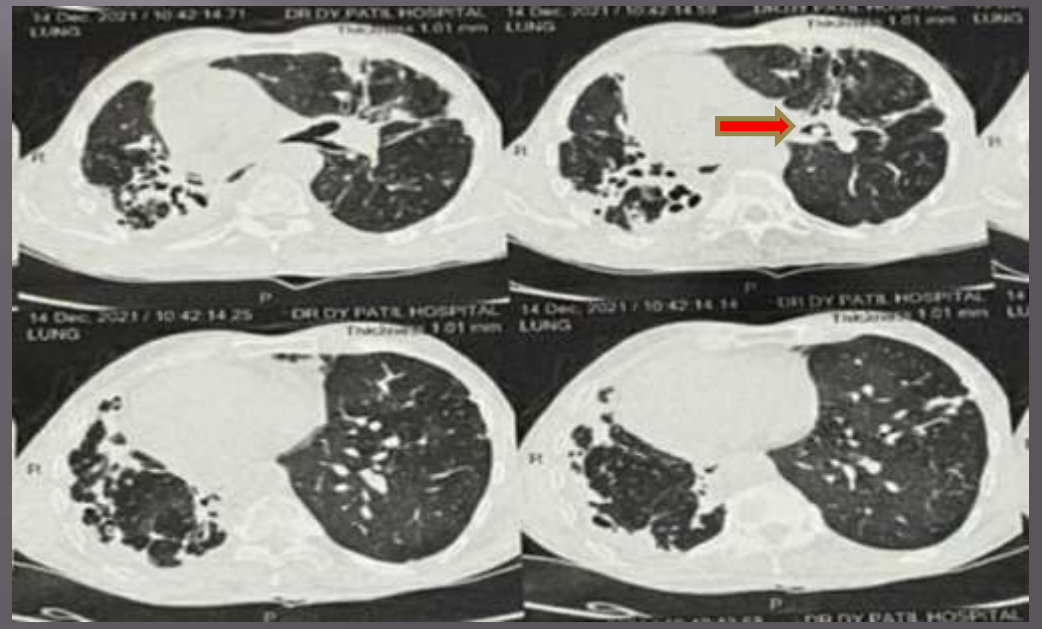
2D ECHO:

- Normal diastolic function
- No RWMA
- Normal LV systolic function, LVEF- 60%
- Mild TR
- Mild PAH

- Diagnosis: Post TB Lung disease(PTLD)- Bronchiectasis with OAD
- Patient was started on antibiotics, nebulisation therapy (ICS, LABA, LAMA) and was given a course of OCS.
- In view of partial response to optimal treatment, further evaluation was done with HRCT.

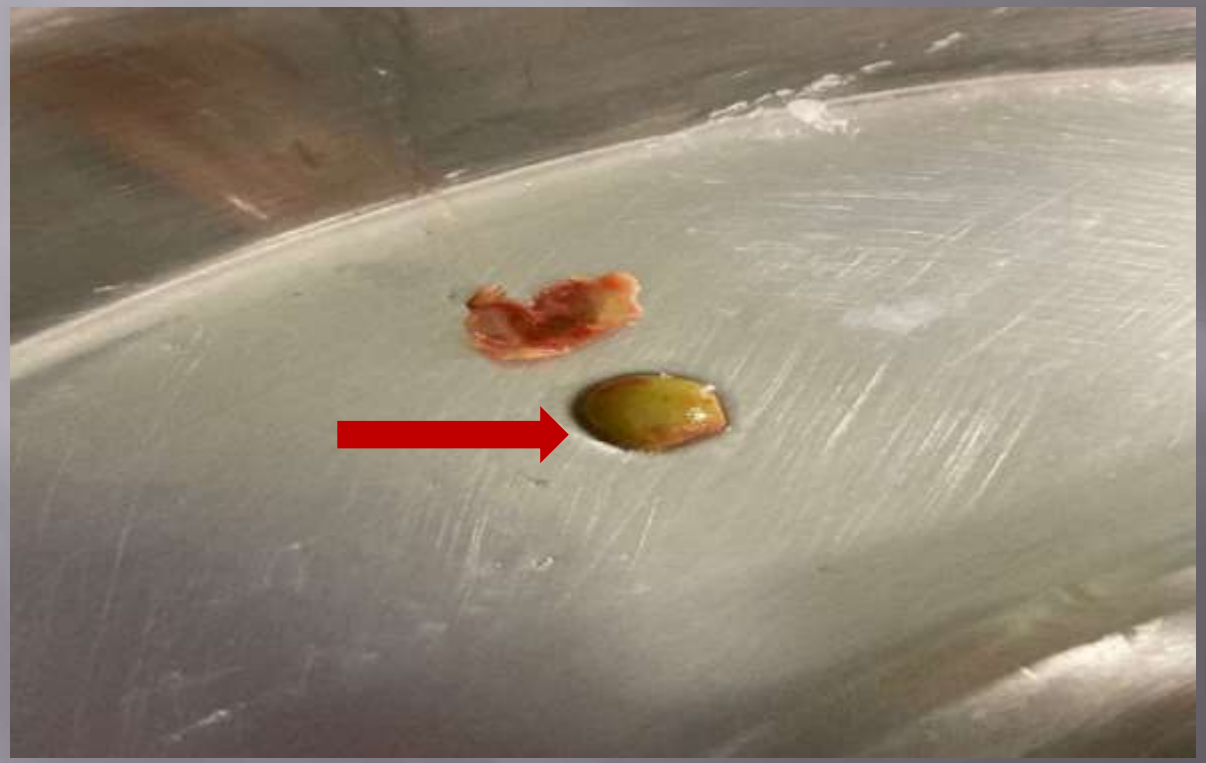
HRCT :

- B/L fibrocavitatory lesion with bronchiectasis (R>L) and volume loss of right side.
- Compensatory hyperinflation of left lung.
- ***Well-defined oval soft tissue density lesion in relation to posterior wall of left lower lobe bronchus extending in lumen distal to origin of left lower lobe bronchus seen- likely adenoma.***



BRONCHOSCOPY

DIAGNOSIS: Foreign body (toordal/yellow pigeon peas)



HPE:

- Consistent with foreign body superimposed with fungal hyphae and spores.

MANAGEMENT

- Patient showed significant improvement post removal of foreign body with almost complete disappearance of cough.
- Patient is currently doing fine and is on regular follow up.

DISCUSSION

- Tracheo-bronchial foreign body aspirations is defined as a solid object aspiration below the level of vocal cords. When symptoms of FBA are minimal, the aspiration may go unnoticed, leading to delayed or omitted diagnosis.

- *FBA usually occurs on right side and uncommon on left side. Here in our case because of the distorted anatomy of right bronchus, foreign body got lodged on the left side.*

- *Bronchiectasis and OAD because of Post TB Lung disease was considered to be one of the obvious cause in this case but the main cause was inobvious foreign body, removal of which caused symptomatic resolution.*

•Last year also we presented a similar case
where allergic rhinosinusitis with BHR was considered to be the obvious cause of chronic cough but the main cause was inobvious foreign body (clove stalk).

TAKE HOME MESSAGE

- *When cough is presumed to be because of existing disease and is not responding to the optimal treatment, patient must be further evaluated because chronic cough can have multiple etiologies.*

ACKNOWLEDGEMENTS

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- Department of Pathology.

Thank You