**Module Respiratory System (Case-3, week-3)**

## Asthma

### Clinical Case

A 35 years old gentleman has shortness of breath for five years that is episodic worse in the winters. He complains of sneezing & nasal blockage on & off since childhood. He smokes cigarettes a pack a day for the last 2 years. His mother is taking inhalers for a long time. He has nasal polyps and a pigeon shaped chest. There are bilateral wheezes in expiration on auscultation.

Investigations revealed mild eosinophilia on peripheral film. On spirometry his FEV1/FVC ratio is 60; Prebronchodilator FEV1 is 60% & FVC is 76% of the predicted. Post bronchodilator FEV1 is 76% of the predicted. The CXR is shown below.



Questions

1. What is the likely condition he is suffering from and why?
2. How would you differentiate cardiac from non cardiac causes of shortness of breath?
3. What are the mechanisms of dyspnea?
4. What are the causes for cardiac and non cardiac causes of shortness of breath?
5. Differentiate bronchial asthma from chronic obstructive airway disease?
6. Explain obstructive and restrictive patterns of spirometry.
7. Explain why post bronchodilator FEV1 is higher than its prebronchodilator value what is its significance?
8. Name some bronchodilator inhalers.
9. What is the role of corticosteroids in bronchial asthma.
10. How to prevent the degranulation of mast cells, Name some agents.
11. How the Tiotropium reverse the the bronchospasm.