

Achalasia Misdiagnosed As Pulmonary Tuberculosis; Case Report

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Abstract: Achalasia -a rare motility disorder characterized by obstruction of the distal part of the esophagus. Among its symptoms are dysphagia and frequent complaints of chest pain as well as weight loss. We present a 30 year old female with one year history of recurrent low grade fever, cough, difficulty in breathing, chest pain and weight loss diagnosed as achalasia. Plain radiography and endoscopy played a vital role in the diagnosis.

Index Terms: achalasia, woman, plain radiograph, endoscopy

I. INTRODUCTION

Achalasia as a rare disorder is characterized by obstruction of the distal esophagus leading to subsequently dilatation of the proximal esophagus¹. Patients generally complain of gastrointestinal discomfort with progressive dysphagia, chest pain and weight loss being among the commonest symptoms². However, in very occasional cases, the patients first complain may be related to respiratory system³. The actual cause of this disorder is unknown but it can be categorized as primary (idiopathic) and secondary (pseudoachalasia)⁴.

The occurrence of hiatal hernia and achalasia is extremely rare, only few reports regarding this association are available⁵.

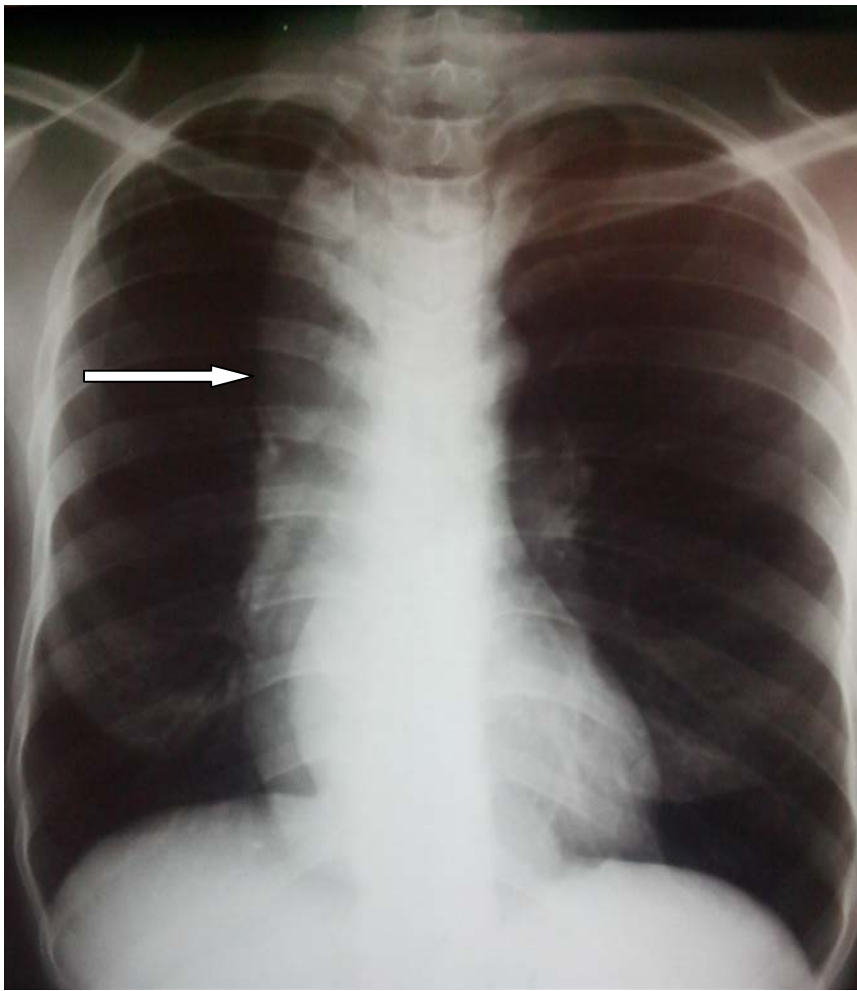
We present this case of achalasia coexisting with hiatal hernia that presented with pulmonary symptom and was misdiagnosed as pulmonary tuberculosis.

II. CASE REPORT

HM is a 30 year old house wife who presented with one year history of recurrent low grade fever, cough, difficulty in breathing, chest pain and weight loss. No history of haemoptysis and patient denied history of dysphagia. She was initially seen in a peripheral hospital where she was placed on anti Koch's based on clinical and chest x-ray findings. After completion of anti Koch's regimen with no significant clinical improvement was referred the patient to our hospital, Usmanu Danfodiyo University Teaching Hospital Sokoto, (UDUTH).

Physical examination showed a young woman, moderately wasted. The cardiovascular and abdominal examinations were essentially normal. The physician at the general outpatient department (GOPD) in our hospital made a provisional diagnosis of atypical pulmonary tuberculosis and requested for another chest radiograph.

In the radiology department before conducting the requested chest x-ray examination we asked the patient for previous chest radiograph which was immediately provided and the first one revealed patchy and streaky opacities in the right middle and lower lung zones Figure 1A and the second chest radiograph showed a homogeneous opacity of soft tissue density in the right paracardiac region with a differential of contrast from the cardiac shadow that extend to the superior mediastinum and fading out in to the neck (Figure 1B). Also a right lateral chest radiograph showed the aforementioned lesion to be in the posterior mediastinum, and we made an impression of achalasia with possibility of aspiration pneumonitis. Subsequently we did barium swallow to confirm the diagnosis which revealed dilated, aperistaltic proximal esophagus with smooth narrowed distal esophagus (bird beak appearance), and a diagnosis of achalasia cardia? Primary type with associated aspiration pneumonitis was made and advised for upper gastrointestinal endoscopy to rule out pseudoachalasia. Subsequently the endoscopic result revealed dilated upper 2/3 of the esophagus containing food particle despite over 12 hours fasting (achalasia) with coexisting hiatal hernia. Patient was finally referred to a surgeon in the hospital where surgery was performed and finally histology reports confirmed lesion to be achalsia. A month later on follow-up, patient's symptoms disappeared and she had started gaining weight with improved quality of life style



1A



1B

Figure 1A: Plain radiograph of the chest showing homogeneous opacity (White arrow) of soft tissue density in the right paracardiac extending into the superior mediastinum. **Figure 1B:** Barium swallow showing dilated proximal esophagus (arrow) with smooth tapered distal end giving bird beak appearance of achalasia (arrow).

III. DISCUSSION

Achalasia is a rare motility disorder of the esophagus and lower esophageal sphincter affecting approximately 1 in 100,000 people¹. Most achalasia patients are symptomatic for many years before seeking for medical attention⁶. The most common symptom is dysphagia for solid and liquid⁷. About 60% of achalasia patient may have some degree of weight loss⁸. Rarely the presenting complaints are respiratory; including chronic cough, recurrent lung infection, pneumonia, atelectasis and breathing difficulty⁵. In our case the patient presented with respiratory symptom which was probably from regurgitation and aspiration. Pulmonary symptoms indicate aspiration of oesophageal content, 30% of patients reported nocturnal coughing spells and nearly 10% had significant bronchopulmonary complications⁹.

This patient was misdiagnosed as pulmonary tuberculosis due to an inadequate follow-up chest x ray during the anti Koch's regimen and a later chest x ray that revealed a homogenous paracardiac opacity extending to the superior mediastinum that faded out into the neck was mistaken for consolidation. A chest radiograph may be abnormal in later disease, with widening of the mediastinum from grossly esophageal dilation and features of pulmonary aspiration¹⁰. The delay in the diagnosis of this patient was probably due to atypical clinical presentation and misinterpretations of typical radiological features in the later chest radiograph.

Endoscopy is an important tool that can be used to differentiate primary achalasia from a secondary achalasia¹, it was advised after our radiological impression of achalasia which subsequently revealed hiatal hernia coexisting in this case. The histology reports confirm the diagnosis of achalasia.

Paraesophageal hiatal hernia is uncommon condition, present in 14% of all hiatal hernia, which require urgent correction to prevent life-threatening complication¹¹. Sliding hiatal hernia coexist in approximately 10% of patient with achalasia. Although coexisting achalasia and paraesophageal hiatal hernia is extremely rare¹², clinician should be aware that oesophageal disorder can coexist.

Several reports have emphasized the rarity of hiatal hernia in patient with achalasia. The frequency of hiatal hernia in general population is estimated to be approximately 5 per 1000 population¹³. Factors responsible for rarity of associated hiatal hernia are not known. It is possible that the patient with achalasia do not show enough barium entry in to the stomach, therefore, may be missed on barium swallow¹⁴. In our case there was enough barium in the stomach which revealed the distal part of the esophagus to be below the diaphragm with no features suggesting herniation of the gastric fundus or gastric mucosal wall above through the hiatus.

The radiologist should be requested to evaluate a chest radiograph whenever possible, when unexpected or unusual findings occur and the presence of coexisting disorder should always be considered as this will lead to life saving condition.

IV. CONCLUSION

We hereby present a case of achalasia coexisting with hiatal hernia that was misdiagnosed due to atypical clinical presentation. This study also highlights the importance of endoscopy in the diagnosis of coexistence of hiatal hernia.

V. REFERENCES

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