An Interesting Case of Achalasia Cardia with Co-Existing Coronavirus 19 Infection

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Authors' contributions

This work was carried out in the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

With this case report, we emphasize the unique fact that chest pain and discomfort in COVID-19 infected patient can be due to other causes and it should not be overlooked. The SARS-CoV-2 is a novel strain of coronavirus, the homo-sapiens have recently been attacked in a large number. Common clinical symptoms of COVID-19 patients infected include high grade fever, weakness, dry cough, breathlessness and chest pain with discomfort. We are presenting a case report of covid-19 infected patient having chief complaints of chest pain and discomfort. The patient was evaluated using computed tomography imaging and- Achalasia cardia was diagnosed and needful was done. It should be noted that multiple conditions can co-exist along with COVID-19 infection for which proper and complete evaluation needs to be done keeping other possibilities in mind.

Keywords: Coronavirus; chest pain; esophagus; achalasia; systemic sclerosis; carcinoma.
1. INTRODUCTION

The SARS-CoV-2, a novel strain of coronavirus, has struck the homo-sapiens on a large magnitude. Common clinical symptoms of COVID-19 patients infected include high grade fever, weakness, dry cough, breathlessness and chest pain with discomfort [1]. The virus can cause variable manifestations by invading different tissues of the body. Respiratory system when invaded by SARS-CoV-2 produces symptoms like high grade fever, sore throat, dry cough, and breathlessness. This virus causes headache, giddiness, and a confused state when it involves the nervous system; diffuse pain in abdomen with diarrhoea when it infects digestive system; chest pain when cardiovascular system is effected and so on). The incidence rate for headache is 1.7–33.9%, for sore throat is 0.7–47.1%, for myalgia /arthralgia is 1.5–61.0%, for chest pain is 1.6–17.7%, and for abdominal pain is 1.9–14.5% [2]. The low incidence of chest pain in COVID infection, makes this case unique.

2. CASE PRESENTATION

2.1 Patient Information

A 48 years old male was admitted to Acharya Vinoba Bhave Rural Hospital with a chief complaint of chest pain and discomfort with fever, sore throat and arthralgia. The patient tested positive for SARS-COV2 infection. To help in swallowing solid food, the patient had to consume a lot of water. The patient experienced loss in weight loss with no anorexia.

2.2 Clinical Findings / Physical Examination

Clinical examination of the patient revealed high grade fever, with high pulse rate of 122 / minute. On thoracic auscultation the air entry was reduced bilaterally and wheeze was audible in bilateral lower zones. On abdominal examination, tenderness was present in epigastric region.

2.3 Diagnostic Intervention

Blood works revealed high TLC count and raised CRP. Computed Tomography revealed dilatation of the distal oesophagus with minimally distended stomach. There was no evidence of any mass lesion arising from oesophageal wall along with features of Covid pneumonia. The final diagnosis made on the basis of CT was achalasia cardia with COVID-19 pneumonia.

2.4 Therapeutic Intervention

The patient was treated for COVID infection with Fabipiravir tablets, multivitamins, zinc tablets, vitamin C tablets with proper antibiotic coverage. Achalasia was treated conservatively with antacids, calcium channel blockers, and proton pump inhibitors with soft diet. The patient was advised surgery after recovery from COVID infection.

Axial CT scan of thorax -soft tissue window: shows dilated esophagus with air fluid level within

![Axial CT scan of thorax](image)

Fig. 1. Axial XT scan of thorax showing markedly dilated esophagus
Fig. 2. Axial section HRCT thorax showing diffuse central and peripheral ground glass opacities in bilateral lung fields S/O atypical viral pneumonia

Fig. 3. Sagittal soft tissue window of CT scan thorax showing dilated esophagus with air fluid level within

3. DISCUSSION

The exact mechanism of SARS-CoV causing chest pain is not yet known. Chest pain may result from pleural inflammatory reaction or due to any other co-existing pathological disease [3]. Abdominal pain and discomfort is seen only in severely infected patients. The prognosis is poor in case of abdominal symptoms being present in a covid patient [4]

Achalasia cardia is diagnosed on CT when patient has an esophagus that is moderate to severely dilated (mean intraluminal diameter of 4.36 cm at level of carina) with wall thickness that is normal. Complications in achalasia patients are metaplasia followed by carcinoma, aspiration and perforation of esophagus. Computed tomography is not indicated as a routine study, but it becomes very useful in cases with complications. Upper GI endoscopy and manometry helps exclude other types of motility disorders. CT thorax may show dilated esophagus with fluid levels, mega esophagus, sigmoid esophagus, atypical features that prove presence of other co-existing diseases or benign/malignant lesions [5]. Acute total airway compression is one of the most common and fatal CT finding in a case of achalasia [6]. Atypical symptoms of achalasia should be
We present a case of a 48 years old male suffering from COVID-19 infection with co-existing achalasia. The patient was conservatively managed with drugs such as calcium channel blockers, antacids and proton pump inhibitors. The patient improved clinically after treatment, was discharged and advised surgery for achalasia.

**ETHICAL APPROVAL AND CONSENT**

As per international standard or university standard guideline patients consent and ethical approval has been collected and preserved by the authors.

**COMPETING INTERESTS**

Authors have declared that no competing interests exist.

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