Achalasia associated with Covid-19 infection – a systematic review

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Introduction

Achalasia is a rare esophageal motor disorder characterized by functional loss of inhibitory myenteric plexus neuronal cells in the distal esophagus that disrupt esophageal peristalsis. Several studies have shown an association between achalasia and neurotropic viruses, with evidence supporting immune reaction to viral infections as a possible mechanism for development of achalasia.

Materials & Methods

We searched Pubmed and Google Scholar from 2020 to November 2023 using the terms achalasia OR Covid-19. Inclusion criteria: Patients with new-onset achalasia in setting of Covid-19 infection. Patients with prior history of achalasia were excluded.

Results

- A study conducted in Venezuela observed a significantly higher incidence of achalasia cases in the years 2020 and 2021 compared to previous years—with approximately two-thirds (66%) of achalasia patients having a documented history of prior COVID-19 infection. In 2021, a significant proportion of achalasia patients had either confirmed or suspected COVID-19, with all of them presenting type II achalasia. Overall, approximately two-thirds of achalasia patients had evidence of prior COVID-19 infection.
- Nearly all patients presented with symptoms of nausea, vomiting, and/or dysphagia (+/- accompanying weight loss) as well as markedly dilated esophagus with distal narrowing and significant food esophageal residue on imaging.
- Patients who developed achalasia associated with COVID-19 infection were relatively older, predominantly males, and more likely to have other existing autoimmune disorders (hypothyroidism, myasthenia gravis).
- Of note, many of the case studies did not report PCR confirmation of COVID-19.

Discussion

The results appear to suggest that patients with recent COVID-19 infections and a history of COVID-19 infection may have developed achalasia as a sequela to the viral infection. It is important to consider the possibility of achalasia in patients with persistent dysphagia following COVID-19. Further investigation is warranted to better understand the incidence and pathophysiology of achalasia and other motility disorders following COVID-19 and their response to treatment.

References