

How does COVID-19 (Coronavirus) 2020 outbreak influence Eosinophilic Gastrointestinal Diseases? A call for urgent reporting of case-series

20.3.2020

INTRODUCTION

The ability of the medical systems worldwide to contain and adequately treat the recent COVID-19 coronavirus outbreak seems alarmingly limited, if the spread of the virus will continue at the current pace. Our sparse scientific knowledge how the virus behaves in the different scenarios further limits the ability to direct our efforts effectively.

Currently, no data are available on how the virus affects patients with eosinophilic esophagitis (EoE) or eosinophilic gastrointestinal diseases (EGID) distal to the esophagus. While it seems that children have only mild presentation of the infection or even recover while being asymptomatic, adult COVID-19 disease ranges from asymptomatic to severe disease with significant mortality. Of the >167,000 reported COVID-19 cases to date, no children <10 years of age died, despite overall mortality rates of 3-5%. On the other hand, mortality is high not only in the elderly but also in those with chronic diseases such as diabetes and cardiovascular diseases. It is unknown whether EoE or EGID is a risk factor by itself, thereby potentially exposing patients to more severe disease than currently estimated. Moreover, the potential immunosuppressive state, stemming from the use of topical or systemic steroids, immunosuppressives or biologics, may also lead to a vulnerable immunological state. Furthermore the effect of chronic PPI use on vulnerability is also not known. Some medications used in the treatment of EoE and EGID distal to the esophagus in either standard care or experimentally are thought to increase severity of viral infections in general (e.g. steroids, thiopurines), however the effect of other drugs are not known. Taken together it is thus unknown whether patients with EoE or EGID should receive special guidance regarding isolation, admissions and stopping EoE/EGID-related treatment before, during and after possible exposure to the virus.

We thus aimed to collate, as rapidly as possible, cases of patients with EoE/EGID who were exposed to COVID-19 in order to base clinical recommendations on this subgroup population.

METHODS

A REDcap-based electronic case report form (eCRF) will record anonymous clinically relevant data on all EoE and EGID patients exposed to COVID-19.

Eligibility criteria

All patients with a prior diagnosis of EoE or EGID distal to the esophagus who have a suspected or confirmed infection with COVID-19, will be included without any exclusion criteria.

Collected data

1. Demographics: age, gender, ethnicity, Race, Country of Residence (and for USA residence – State/territory)
2. Reporting center
3. Chronic illnesses other than EoE/EGID
4. Smoking (active, passive)
5. Signs of malnutrition (SDS weight/height at the time of infection)
6. EoE/EGID basic data: disease type (EoE/EG/EGE/EC), disease duration
7. EoE/EGID related disease activity:
 - a. Longitudinal physician global assessment of the year prior to infection (on a 100mm VAS and categorically);
 - b. Prior surgery (yes/no);
 - c. Last blood tests prior to the infection (CRP, ESR, albumin, hemoglobin, eosinophils);
 - d. Last imaging (US, CTE, MRE, barium swallow);
 - e. Last endoscopic assessment results (upper endoscopy, ileocolonoscopy, capsule endoscopy).
8. EoE/EGID -related treatments:
 - a. Current (within 3 months of infection) medications/elimination diet including dosing schedule.
 - b. Past treatments (discontinued at least 3 months prior to infection)- without dates or dosing.
9. COVID-19- related data:
 - a. Confirmed or suspected infection
 - b. Based on what the suspicion or confirmed diagnosis?
 - c. Date of confirmed or suspected infection
 - d. Type of relation of the index contagious case, if known
 - e. Presenting symptoms
 - f. Hospitalization (yes/no) and if needed, how many days to discharge.
 - g. Intensive Care Unit admission (yes/no)
 - h. Mechanical ventilation (yes/no)
 - i. ECMO (yes/no)
 - j. Death (yes/no)
 - k. Total days from symptoms to clinical resolution of the infection.
 - l. Did the patient receive any antiviral medication? Yes/No (name)
 - m. Did you stop the EoE/EGID medication? Yes / No , if yes: specify which one and how long.
 - n. Did the infection induce a flare of the EoE/EGID? If yes, specify mild, moderate, severe

SIGNIFICANCE

The current emergency health situation calls for immediate, effective and concerted collaborative effort to rapidly collate data on how patients with EoE/EGID manifest the new COVID-19 coronavirus. Data will be used to issue guidance on managing EoE/EGID during the outbreak.