

شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو

# بسم الله الرحمن الرحيم





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شبكة المعلومات الجامعية التوثيق الإلكتروني والميكرونيله



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



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شبكة المعلومات الجامعية التوثيق الإلكترونى والميكروفيلم

# جامعة عين شمس التوثيق الإلكتروني والميكروفيلم قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها على هذه الأقراص المدمجة قد أعدت دون أية تغيرات



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# Prevalence of Liver Injury, gastrointestinal Tract Symptoms, and H. Pylori Infection in Patients of Coronavirus Disease 2019 (COVID-19)

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# **List of Abbreviations**

| ACE2     | Angiotensin-converting enzyme 2                   |
|----------|---|
| ACS      | Acute Coronary Syndrome                           |
| AKI      | Acute kidney injury                               |
| ALT      | Alanine aminotransferase                          |
| ARDS     | Acute respiratory distress syndrome               |
| AST      | Aspartate aminotransferase                        |
| AT2      | Angiotensin II Type 2                             |
| BID      | Bis in die which in Latin means twice (two times) |
|          | a day.  |
| CAD      | Coronary artery disease                           |
| CHF      | Congestive heart failure                          |
| CK-MB    | Creatine kinase MB isoenzyme                      |
| COPD     | Chronic obstructive pulmonary disease             |
| CoV 2    | Coronavirus 2                                     |
| COVID 19 | Coronavirus disease of 2019                       |
| CRP      | C-reactive protein                                |
| CT       | Computed tomography                               |
| cTnI     | Cardiac troponin I                                |
| D-dimer  | Domain Dimer                                      |
| ECG      | Electrocardiogram                                 |
| FDA      | Food and Drug Administration                      |

| GGT       | Gamma-glutamyltransferase                      |
|-----------|--|
| GI        | Gastrointestinal                               |
| GIS       | Gastrointestinal Symptom                       |
| GIT       | Gastrointestinal tract                         |
| H. Pylori | Helicobacter pylori                            |
| HBV       | Hepatitis B virus                              |
| HCV       | Hepatitis C virus                              |
| IBD       | Inflammatory bowel disease                     |
| ICUs      | Intensive care units                           |
| MERS      | Middle East Respiratory Syndrome               |
| MI        | Myocardial infarction                          |
| NHS       | National Health Service                        |
| NSTEMI    | Non-ST-segment elevation myocardial infarction |
| PCR       | Polymerase chain reaction                      |
| RNA       | Ribonucleic acid                               |
| RT        | Respiratory tract                              |
| SARS      | Severe acute respiratory syndrome              |
| S-protein | Spike protein                                  |
| ST        | Segment elevation                              |
| STEMI     | ST-segment elevation myocardial infarction     |
| WHO       | World Health Organization                      |

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#### Introduction

The outbreak of coronavirus (SARS-CoV2) started in the Chinese city of Wuhan in December 2019 (*Jin et al.*, *2020*). Then, the disease was spread around the world.

SARS-CoV2 is one of the beta-coronavirus genus, which also includes the SARS-CoV and the Middle East Respiratory Syndrome Coronavirus (MERS-CoV). It consists of a single-stranded RNA virus that genetically strongly resembles the bata coronaviruses (*Zhou et al.*, 2020). Consequently, the disease caused by this novel virus was named COVID-19 (coronavirus disease 2019) by the World Health Organization (*Rokkas*, 2020).

Gastrointestinal tract infection by SARS-CoV-2 had confirmed, since SARS-CoV-2 RNA was first detected in a stool specimen of the first reported COVID-19 patient in the U.S. (*Holshue et al.*, 2020).

Indeed, many studies that examined the threats of COVID-19 on the health of the people. These threats have significant impacts on the liver (*Wang et al.*, 2020), GIT (*Xiao et al.* 2020).

The prevalence of GIT symptoms in Diarrhea, nausea/vomiting, and abdominal pain in COVID-19 patients are 9.1%, 5.2%, and 3.5%, respectively (*Wang et al.*, 2020).

Diarrhea is the most common GIS (Gastrointestinal Symptom) in coronavirus infections. Moreover, nausea and vomiting are not necessarily caused by SARS-COV-2 infection and may be the result of other causes (*Wang et al.*, 2020). So, H. Pylori infection was investigated in this study.

Most of the emerging COVID-19 literature has focused on severe or critically ill patients, although over 80% of patients have mild disease. Thus, it is important to describe the clinical characteristics of low severity patients to provide information for early clinical identification of COVID-19. This will also be significant to ensure effectiveness for the rapid self-quarantine for people with symptoms who are not sick enough to warrant hospitalization (*Han et al.*, 2020).

## Aim of the Work

This study aims to estimate the rate of GI symptoms, liver enzyme levels outside reference ranges, and fecal tests for H. Pylori antigen among patients with the suspected or proven COVID-19.