

# Observational study to estimate risk of COVID 19 pneumonia in causation of pancreatitis

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**Abstract-** Gastrointestinal symptoms are highly prevalent in coronavirus disease ranging from 17.6 % to 53%.The proposed mechanism for GI symptoms involves SARS-COV2 virus binding to the host epithelial cell's ACE 2 receptor,commonly found in GI tract epithelial cells.

After defeating covid to an extent there is now an interest in understanding post covid sequele .In this study we are tried understand if there was any impact of covid 19 infection on causation or prognosis of pancreatitis .

**Methodology :**

Clinical and laboratory data of all consecutive patients with a primary diagnosis of AP during past 6months with history of covid 19 infection was collected .Clinical and radiological grading was taken into consideration for finding severity.

**Result :**

out of 30 patient 4 patients had severe covid 19 infection requiring more than 10days of hospitalization but though 1 of those 4patient developed recurrent pancreatitis their severity score was less(clinical and radiological).

14 had mild covid 19 infection with minimal respiratory and more of GI symptoms .Out of these 14 ,10 developed severe acute necrotizing pancreatitis requiring ICU stay and prolonged hospital stay .

6patients had mild covid 19 infection with respiratory symptoms .5 of them had pancreatitis of mild severity ,1 developed severe necrotizing pancreatitis.

**Conclusion:** Based on our study we conclude that more than severe covid 19infection mild covid 19infection with GI symptoms has a greater impact on the prognosis of patient with pancreatitis.

However there is still insufficient evidence showing that covid 19 can cause AP or negatively impact prognosis.Additional major studies are needed to clarify relationship between these two entities

**Keywords:** COVID, pancreatitis, pneumonia.

## Introduction

Gastrointestinal symptoms are highly prevalent in coronavirus disease ranging from 17.6 % to 53%.The proposed mechanism for GI symptoms involves SARS-COV2 virus binding to the host epithelial cell's ACE 2 receptor,commonly found in GI tract epithelial cells.

After defeating covid to an extent there is now an interest in understanding post covid sequele .In this study we are tried understand if there was any impact of covid 19 infection on causation or prognosis of pancreatitis .

**Aim:** To find impact of covid 19 infection on causation and prognosis of pancreatitis

## Inclusion criteria :

- 1)Patients with acute pancreatitis
- 2)Prior history of covid 19 infection

## Exclusion criteria:

Chronic pancreatitis patient  
Patient with on going covid 19 infection  
Immunocompromised patients

## Methodology:

Clinical and laboratory data of all consecutive patients with a primary diagnosis of AP during past 6months with history of covid 19 infection was collected .Clinical and radiological grading was taken into consideration for finding severity.

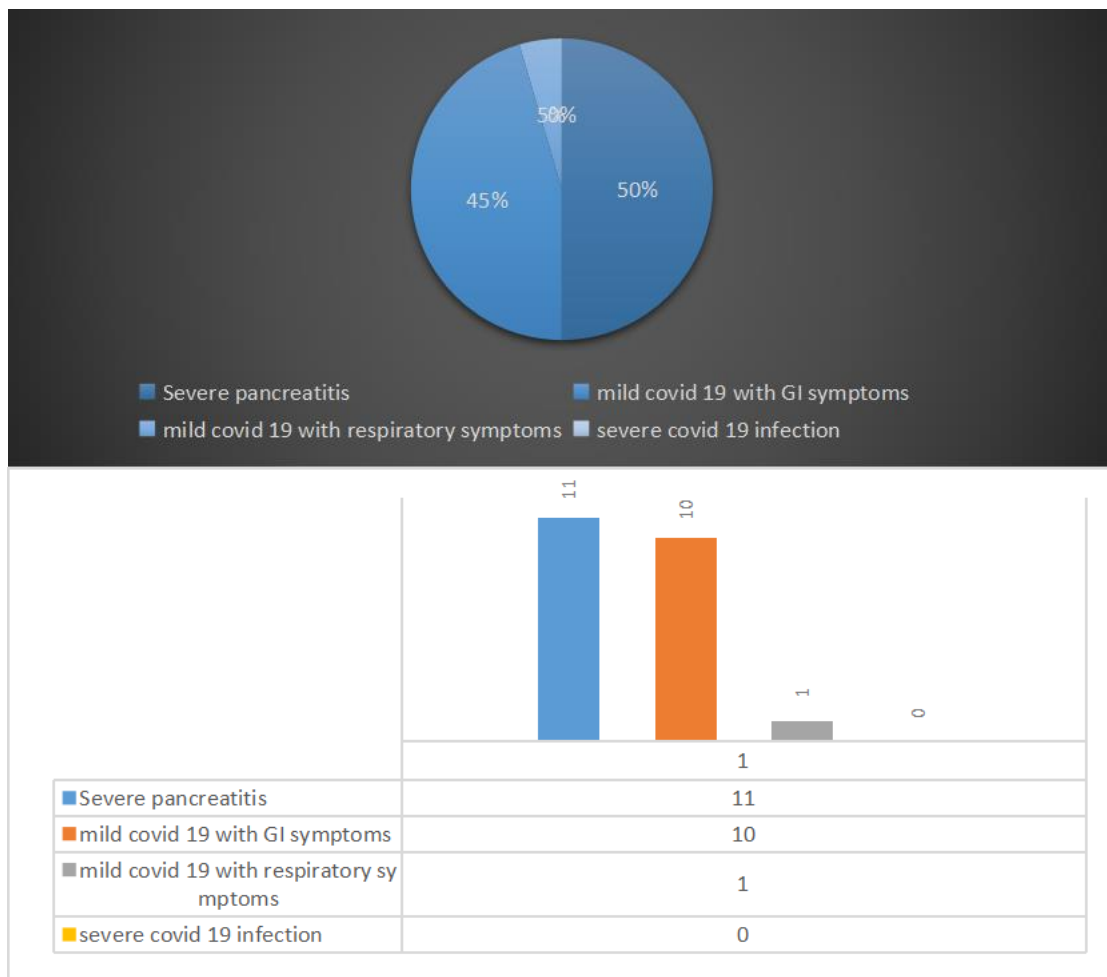
**Results:**

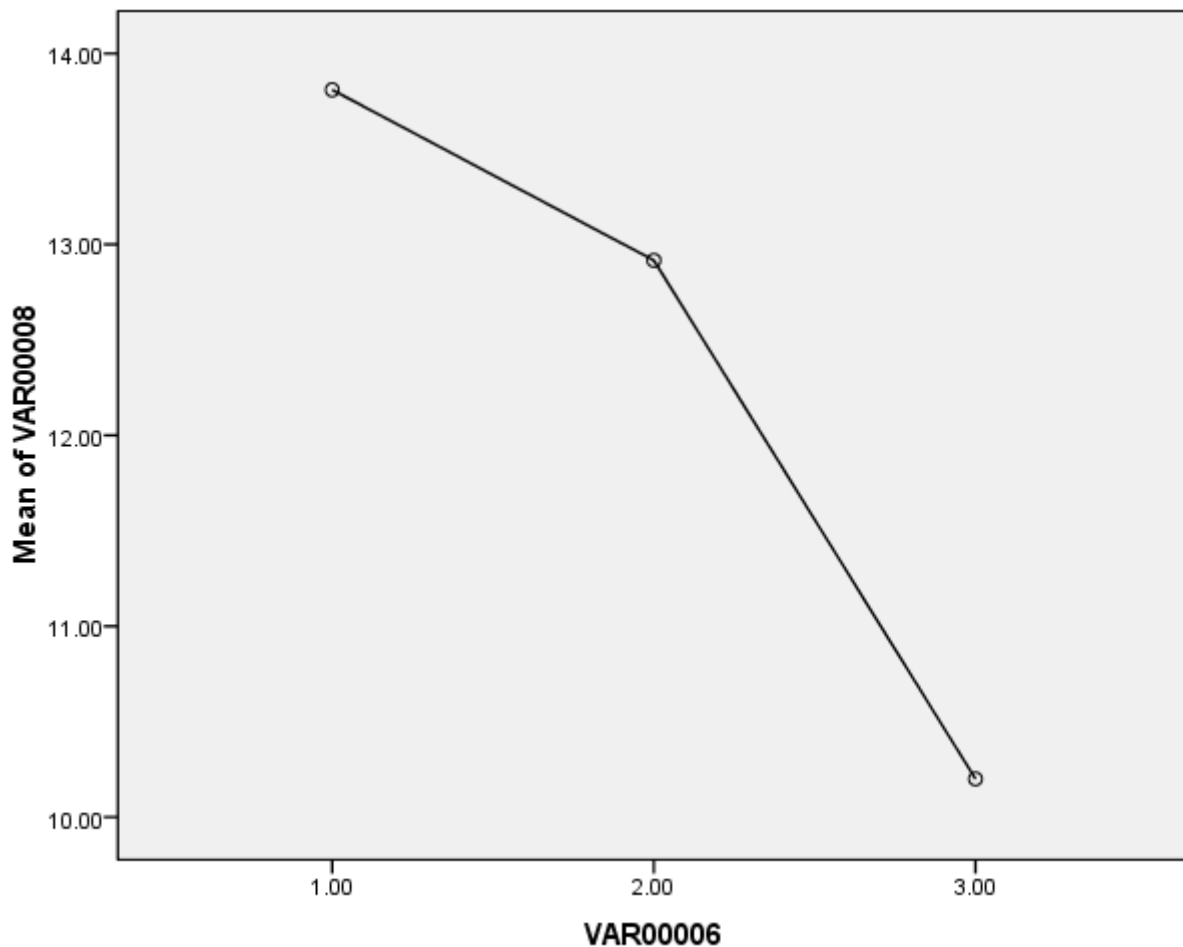
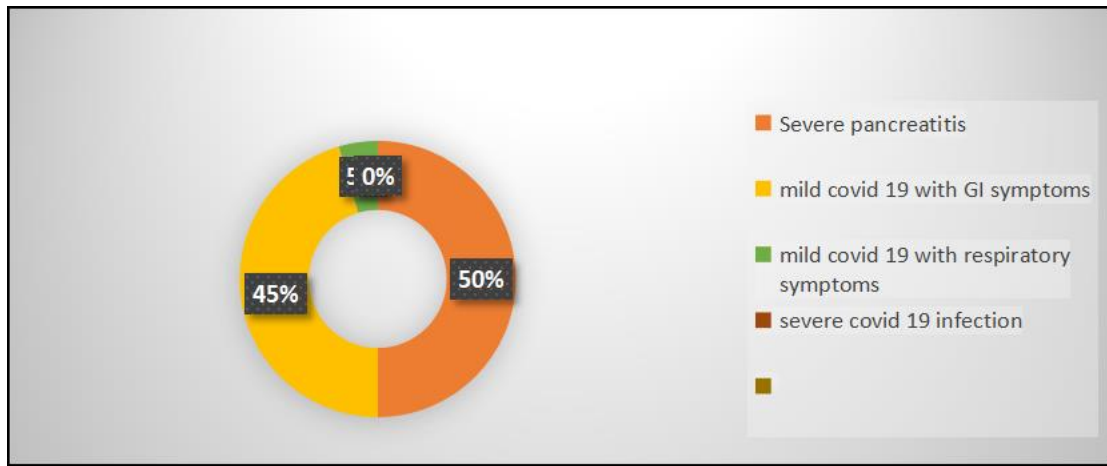
Pancreatitis Patients	Severity of pancreatitis	Mild covid 19 infection with GI symptoms	Severe covid 19 infection	Mild covid 19 infection with respiratory symptoms
1	mild	yes		
2	Mild but recurrence present		yes	
3	severe	yes		
4	severe	yes		
5	Mild		yes	
6	Mild		yes	
7	mild			yes
8	mild			yes
9	severe	yes		
10	mild	yes		
11	mild	yes		
12	mild	yes		

Pancreatitis Patients	Severity of pancreatitis	Mild covid 19 infection with GI symptoms
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13	severe	yes	
14	Mild		
15	severe		
16	severe	yes	
17	severe	yes	
18	severe	yes	
19	mild		
20	severe	yes	
21	mild		
Pancreatitis Patients	Severity of pancreatitis	Mild covid 19 infection with GI symptoms	Severe covid
22	severe	yes	
23	severe	yes	
24	mild		
25	mild		
26	mild		

27	mild		
28	severe		
29	mild		
30	mild		





**Discussion:**

out of 30 patient 4 patients had severe covid 19 infection requiring more than 10days of hospitalization but though 1 of those 4patient developed recurrent pancreatitis but severity score was less(clinical and radiological). 14 had mild covid 19 infection with minimal respiratory and more of GI symptoms .Out of these 14 ,10 developed severe acute necrotizing pancreatitis requiring ICU stay and prolonged hospital stay . 6patients had mild covid 19 infection with respiratory symptoms .5 of them had pancreatitis of mild severity ,1 developed severe necrotizing pancreatitis.

**Conclusion:**

Based on our study we conclude that more than severe covid 19infection mild covid 19infection with GI symptoms has a greater impact on the prognosis of patient with pancreatitis. However there is still insufficient evidence showing that covid 19 can cause AP or negatively impact prognosis.Additional major studies are needed to clarify relationship between these two entities

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