# Pfizer COVID-19 Vaccine-Induced Peritonitis

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#### Introduction

We report the first case of peritonitis that diagnosed two days after first dose of Pfizer BioNTech COVID-19 mRNA vaccine, recurred after second and third dose of vaccine.



CT Abdomen with contrast:

Diffused peritonitis with appendicitis and few diverticula laterally near the iliac region with thickening of its wall with surrounding

edematous changes and fat stranding.

# **Case Presentation**

A 62 years old male with no past medical history apart from hyperlipidemia on statin, presented 2 days after he received the first dose of Pfizer BioNTech COVID-19 mRNA vaccine with diffuse abdominal pain associated with nausea.

Clinical examination showed generalized abdominal tenderness more severe in the left iliac fossa

Blood tests showed CRP=150 mg/L, ESR=39

CT abdomen confirm the evidence of diffused peritonitis



First peritonitis required hospitalization and intravenous antibiotic with significant improvement of abdominal pain and decreased in inflammatory marker within few days.

With the second and third dose of Pfizer BioNTech COVID-19 mRNA vaccine, the patient experienced similar symptoms of abdominal pain 2 days after the vaccine, but were less severe, requiring no hospitalization. Inflammatory markers were high, so he received oral antibiotic with good response.

# Discussion

The patient was diagnosed as peritonitis based on clinical, laboratory and radiological findings after first, second, and third dose of Pfizer BioNTech COVID-19 mRNA vaccine.

The mechanism responsible for vaccine-induced peritonitis is unclear.

There is some data and case report about COVID-19 infection induced colitis and peritonitis, but no data related to vaccine induced peritonitis.<sup>(1)</sup>



# Conclusion

To our knowledge, this is the first report of peritonitis post COVID vaccine.

It is important to report a rare COVID-19 vaccine side effect and the manifestation of the disease to prevent serious complications by early diagnosis and management.

### Reference

(1) Abdominal Pain and Diffuse Colitis Following COVID-19 Infection: Report of a Case https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8493643/