

# The Purging Bowels

Jessica Ann Nathan, Wong Jin Yeng, Alex Lim Aik Huei

## CASE REPORT

A 29-year-old Bangladeshi man presented to the Emergency Department of Hospital Kuala Lumpur complaining of abdominal pain and diarrhea for the past three days. He had diarrhea for more than 10 times day and had been unable to tolerate even fluids for the past few days. He had just travelled to Malaysia from Bangladesh three days ago. He had no known medical illnesses. His blood pressure on arrival was 90/60 mmHg, heart rate (HR) 120 bpm. Physical examination revealed clear lungs, distended soft abdomen with non-specific tenderness. His white blood cell count was  $27 \times 10^9/L$  (normal range  $4.00-10.00 \times 10^9/L$ ) with thrombocytosis. He had a very high total protein count of 112 g/L. Renal profile revealed a normal urea but an elevated creatinine of 184 mol/L. He had severe metabolic acidosis and had to be intubated. We noticed that his pampers were filled with pale “rice water” stool and the stool sample was sent for culture whereby the results came out after a few days confirming that it was a *Vibrio Cholera* 01 Ogawa infection. An abdominal X-ray (Figure 1) and Point of Interest Ultrasound of the Abdomen (Figures 2–5) were done on arrival and based on the initial findings on the bedside ultrasound, a Computed Tomography (CT) scan of the Abdomen (Figure 6) was done subsequently.



Figure 1: Abdominal X-ray showing no dilated bowel loops. Presence of air fluid level was seen (arrow).

## DISCUSSION

Cholera infection causes severe secretory diarrhea which can lead to severe metabolic acidosis and hypovolemia. Bowel obstruction is detected when there



Figure 2: Point-of-care ultrasound of the abdomen done at the right hypochondrium showing dilated bowels with keyboard sign (arrow).

Jessica Ann Nathan<sup>1</sup>, MD, Wong Jin Yeng<sup>1</sup>, MBBS, Alex Lim Aik Huei<sup>2</sup>, MD

**Affiliations:** <sup>1</sup>Emergency Physician, Hospital Kuala Lumpur, 50586 Kuala Lumpur, Malaysia; <sup>2</sup>Medical Officer, Hospital Kuala Lumpur, 50586 Kuala Lumpur, Malaysia.

**Corresponding Author:** Jessica Ann Nathan, MD, Emergency Physician, Hospital Kuala Lumpur, 50586 Kuala Lumpur, Malaysia; Email: jess\_143max@hotmail.com

Received: 28 May 2022

Accepted: 05 August 2022

Published: 02 September 2022



Figure 3: Point-of-care ultrasound of the abdomen done at the epigastrium.



Figure 4: Point-of-care ultrasound of the abdomen done at the left flank showing dilated bowels with keyboard sign (arrow).



Figure 5: Point-of-care ultrasound of the abdomen done at the left iliac fossa showing dilated bowels.

are fluid filled dilated bowels with thickened walls, back and forth movements of the bowel contents, plicae circulares (keyboard sign), free fluid in between the bowel loops (tanga sign) and transition points at the obstruction site [1]. In this case, there were fluid filled bowels causing dilatation due to large amounts of fluid being excreted;

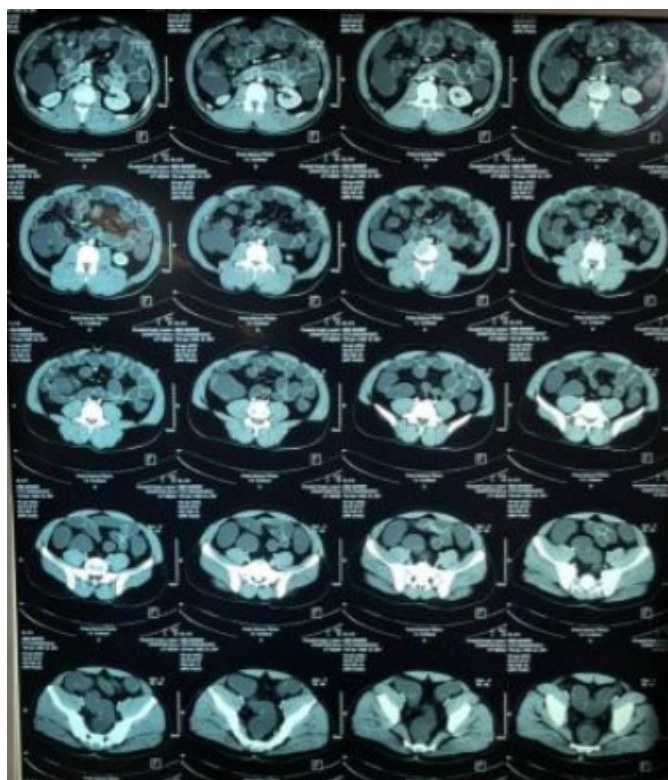


Figure 6: A computed tomography (CT) abdomen was done which showed the entire small bowel from jejunum and the entire large bowel was completely filled with minimal air pockets. No intestinal obstruction was seen.

however, there was no obstruction seen. This patient was admitted to the intensive care unit for three days and treated for severe cholera. He was extensively hydrated and all electrolyte imbalances corrected. He was started on antibiotics in view of the high white blood cell counts. He was extubated well on the third day and discharged after 10 days of admission with normal blood results.

## CONCLUSION

Bedside ultrasound of the bowels is a quick and reliable method to diagnose dilated fluid filled bowels especially in cases like cholera whereby large amounts of fluid are being produced.

**Keywords:** Computed tomography, Diarrhea, Thrombocytosis, Ultrasound

### How to cite this article

Nathan JA, Wong JY, Lim AHA. The Purging Bowels. Int J Case Rep Images 2022;13(2):95–97.

Article ID: 101334Z01JN2022

\*\*\*\*\*

doi: 10.5348/101334Z01JN2022CR

**REFERENCE**

1. Rosano N, Gallo L, Mercogliano G, et al. Ultrasound of small bowel obstruction: A pictorial review. *Diagnostics (Basel)* 2021;11(4):617.

\*\*\*\*\*

**Author Contributions**

Jessica Ann Nathan – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Wong Jin Yeng – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Alex Lim Aik Huei – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation

of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

**Guarantor of Submission**

The corresponding author is the guarantor of submission.

**Source of Support**

None.

**Consent Statement**

Written informed consent was obtained from the patient for publication of this article.

**Conflict of Interest**

Authors declare no conflict of interest.

**Data Availability**

All relevant data are within the paper and its Supporting Information files.

**Copyright**

© 2022 Jessica Ann Nathan et al. This article is distributed under the terms of Creative Commons Attribution License which permits unrestricted use, distribution and reproduction in any medium provided the original author(s) and original publisher are properly credited. Please see the copyright policy on the journal website for more information.

Access full text article on other devices



Access PDF of article on other devices





INTERNATIONAL JOURNAL OF CASE REPORTS AND IMAGES



VIDEO JOURNAL OF CLINICAL RESEARCH



VIDEO JOURNAL OF BIOMEDICAL SCIENCE



INTERNATIONAL JOURNAL OF HEPATOBILIARY AND PANCREATIC DISEASES



INTERNATIONAL JOURNAL OF BLOOD TRANSFUSION AND IMMUNOHEMATOLOGY



EDORIUM JOURNAL OF OPHTHALMOLOGY



**Submit your manuscripts at**  
[www.edoriumjournals.com](http://www.edoriumjournals.com)



EDORIUM JOURNAL OF MEDICINE



EDORIUM JOURNAL OF CARDIOTHORACIC AND VASCULAR SURGERY



JOURNAL OF CASE REPORTS AND IMAGES IN ORTHOPEDICS AND RHEUMATOLOGY



EDORIUM JOURNAL OF PSYCHOLOGY



EDORIUM JOURNAL OF CELL BIOLOGY



JOURNAL OF CASE REPORTS AND IMAGES IN DENTISTRY



EDORIUM JOURNAL OF CANCER



EDORIUM JOURNAL OF PSYCHIATRY



JOURNAL OF CASE REPORTS AND IMAGES IN INFECTIOUS DISEASES



EDORIUM JOURNAL OF ANATOMY AND EMBRYOLOGY



EDORIUM JOURNAL OF SURGERY



JOURNAL OF CASE REPORTS AND IMAGES IN PATHOLOGY



EDORIUM JOURNAL OF ANESTHESIA