

# Multiorgan Failure - A Grave Complication of Enteric Fever

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## ABSTRACT

Enteric fever is a systemic illness which affects many organs. The potential of multiorgan involvement in enteric fever, rarely, may occur simultaneously in the same patient. We wish to report a case of Enteric Fever which, subsequently, progressed to Multiple Organ Dysfunction Syndrome (MODS). Timely diagnosis, prompt treatment and proper monitoring are the key factors to obtain a favourable outcome.

**Key words:** Enteric Fever, Multiple Organ Dysfunction Syndrome (MODS)

**HOW TO CITE THIS ARTICLE:** Multiorgan Failure - A Grave Complication of Enteric Fever, J Res Med Dent Sci, 2021, 9(11): 408-409

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**Received:** 04/10/2021  
**Accepted:** 18/10/2021

## INTRODUCTION

Enteric fever is associated with high morbidity and mortality, especially in absence of timely diagnosis and treatment facilities. A small fraction of these patients can progress to development of Multiple Organ Dysfunction Syndrome (MODS) [1].

## CASE REPORT

A 19 years old female patient presented with history of fever, abdominal pain, nausea, vomiting, diarrhoea and decreased urine output for 3 days. There was no history of hematuria or rashes. On examination, patient appeared toxic and was drowsy, disoriented, febrile and dehydrated. Pallor was present. Mild facial puffiness was present. Vitality, Pulse was 114/min., BP was 96/50 mmHg, RR was 26/min [2]. Per-Abdominal Examination revealed tender hepatomegaly of 4cm below the costal margin and splenomegaly of 2cm. Looking at the clinical picture, complicate malaria, septicemia, hepatitis and dengue were kept as differentials. Empirically, inj. Piperacillin-Tazobactam and inj. Artesunate were started. Upon investigating, CBC showed Hb.:9.1gm/dl, TC: 8750/cu.mm., platelets: 70,000/cu.mm. Hct. was raise. Band cells and Neutrophils with toxic granules were present on peripheral smear examination. RFT showed urea of 120mg/dl, S.creatinine of 2.6mg/dl, NA:130 mEq/l, K: 3.3 mEq/L. LFT showed S.bilirubin (total) of 3.2mg/dl with direct bilirubin of 1.5mg/dl. AST was 201 U/L, ALT was 112 U/L, ALP was 751U/L, S.protein was 5.1g/dl, albumin of 2.2g/dl. S.amylase was 180 U/L and S.lipase was 489 U/L. Random Blood Sugar was 82mg/dl. Urine routine examination was normal. Malarial Parasite by card and by

smear came negative. Dengue serology also turned out to be negative. Viral markers for HIV, anti-HCV, anti-HEV, HBsAg and anti-HCV were negative. Leptospira serology was also negative [3]. ABG showed compensated metabolic acidosis with raised lactate. CXR showed blunting of C-P angles. USG abdomen showed hepatosplenomegaly, bulky pancreas, and moderate ascites with bilateral pleural effusion. Blood cultures isolated Salmonella Typhi. Antibiotics were tailored to inj. Ceftriaxone with inj. Ciprofloxacin. Patient responded to treatment and became afebrile after 5 days of treatment. Follow-up investigations showed improvement in laboratory parameters [4].

## DISCUSSION

Enteric fever is an acute systemic febrile illness caused by Salmonella Typhi. Initially, it presents as a febrile illness without localization and thus, is clinically undistinguishable from other tropical infections. The clinical presentation of enteric fever varies greatly and ranges from simple febrile illness to multi-systemic involvement such as thrombocytopenia, hepatitis, pancreatitis, acute kidney injury, pancreatitis, polyserositis, encephalitis, etc. On the diagnostic front, it can mimic various other tropical illnesses like malaria, dengue, leptospirosis, hepatitis, HIV to name a few. Hence, enteric fever might pose a diagnostic delimita when presenting in initial stages of the disease [5].

## CONCLUSION

Enteric Fever, in some patients, can lead to multi-systemic complications and subsequent development of MODS. Timely diagnosis, prompt treatment and proper monitoring are the key to the restoration of normal organ function.

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