



BMH Med. J. 2018;5(1):8-11 **Case Report**

## Dengue Hemorrhagic Fever - An Unusual Presentation

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### Abstract

Dengue fever is the most rapidly spreading mosquito born viral disease in the world. It is caused by dengue virus (DENV), an arbovirus belonging to family Flaviviridae. Cytokine mediated transient capillary leak plays a major roll in its presentation. Even though various mechanisms have been proposed, none of them explains its presentation perfectly. Here we are presenting the case of a 64 year old man who presented as constipation and urinary retention and was diagnosed as dengue hemorrhagic fever (DHF). Thorough literature search revealed no other case of DHF with intra-abdominal hematoma which presented with constipation.

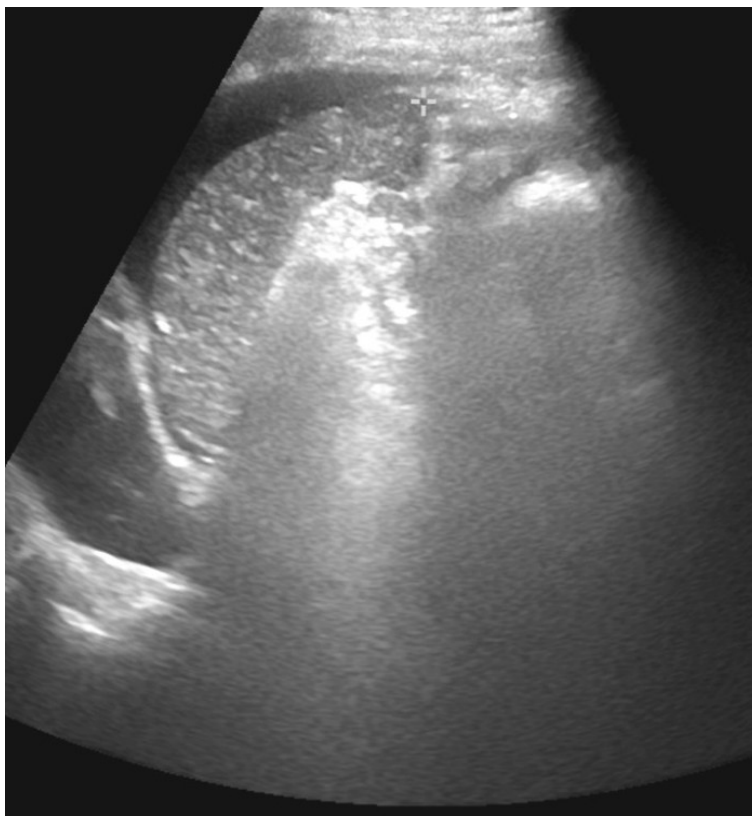
**Keywords:** Dengue fever, capillary leak, retroperitoneal hematoma, constipation

### Case Report

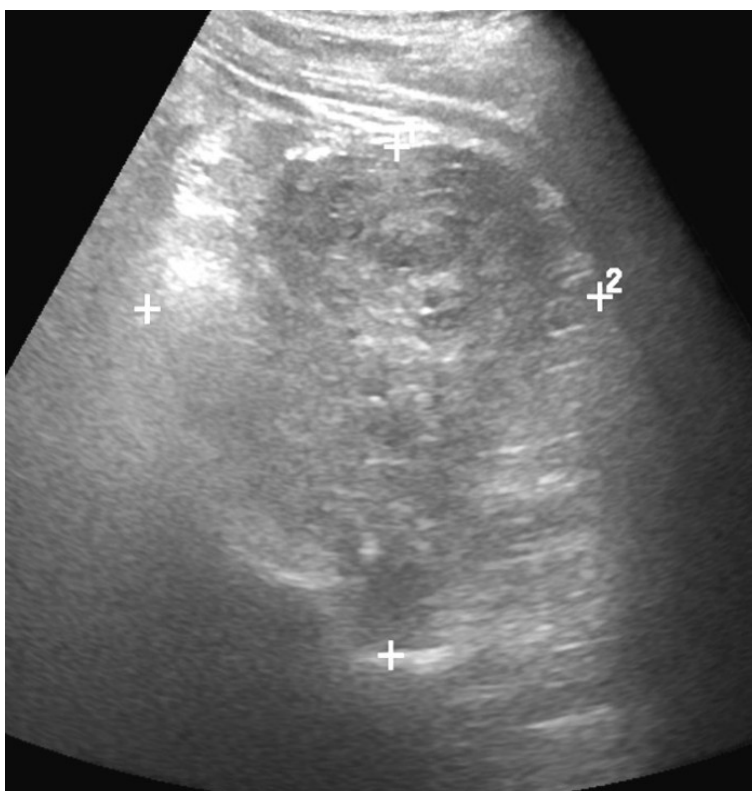
A 64 year old male presented to the emergency department (ED) with 5 days history of fever, constipation and abdominal pain along with one day history of urinary retention. Fever was mild, intermittent and was relieved with paracetamol. Abdominal pain was of gradual onset, cramping type, mainly in the left iliac fossa and radiating to the right iliac fossa. There was no other associated symptoms. He had history of mild prostatomegaly. His personal, family and medication history were not significant.

On primary assessment his vitals were stable. He was febrile with a temperature of 99.2 degrees Fahrenheit. He was pale and there was no other general examination finding. Per abdominal examination showed slightly distended abdomen with mild diffuse tenderness, more in the left iliac fossa and hyogastrium. Bladder was palpable and bowel sounds were sluggish. Per rectal examination showed no melena or fresh blood. There was no hepatosplenomegaly. Psoas sign was positive.

Bedside ultrasonogram (USG) showed mild to moderate right sided plueral effusion and free fluid in the Morrison's pouch and spleno-renal pouch (**Figure 1**). In addition to this a heterogenous mass, predominantly hypoechoic was noted in the left hypochondrium extending to left iliac fossa (**Figure 2**). After the initial evaluation a provisional diagnosis of viral fever with capillary leak syndrome, small intestinal obstruction and intra-abdominal hematoma was made.



**Figure 1:** USG showing free fluid in splenorenal and left subdiaphragmatic space

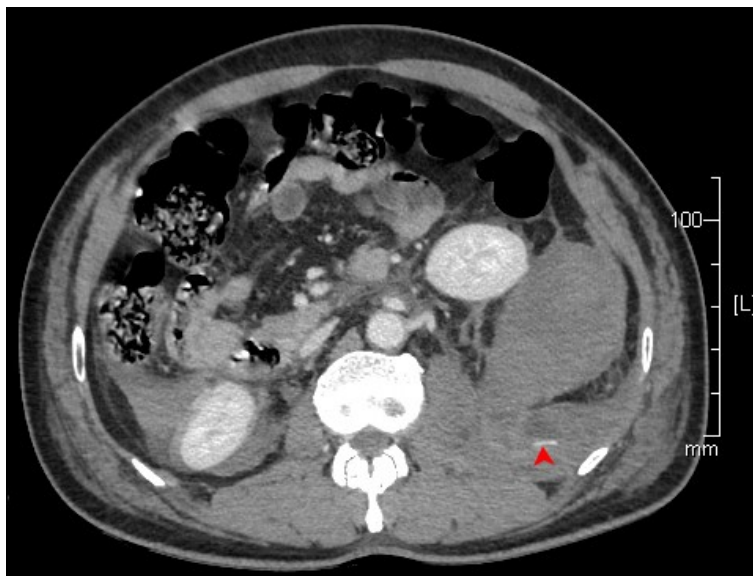


**Figure 2:** USG showing heterogenous mass, predominantly hypoechoic in the left hypochondrium

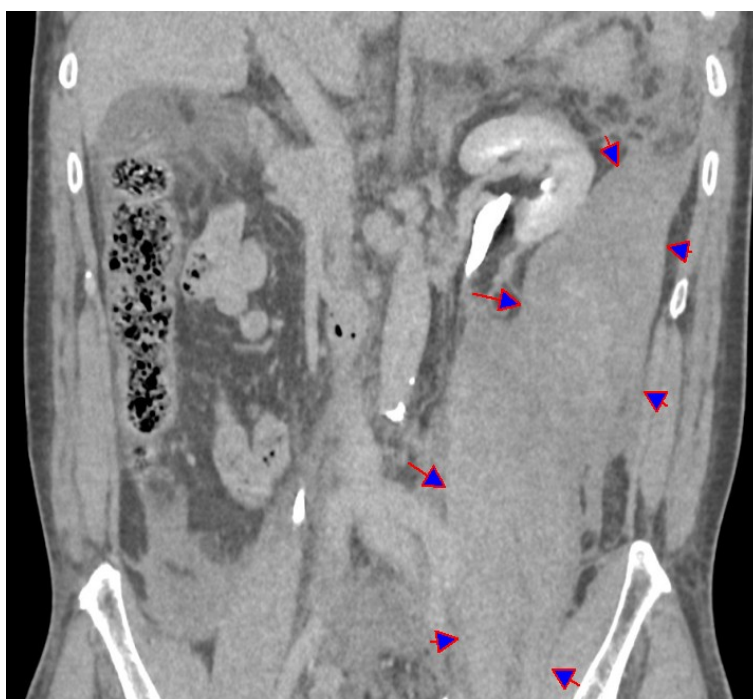
Routine investigations showed mild anemia (Hb 9.5g/dl) and thrombocytopenia (91000cells/dl). X-ray abdomen in erect posture showed no signs of mechanical obstruction. Coagulation profile was within normal limits. Since it was a period of dengue fever epidemic in our region, Dengue card test was also sent which showed Dengue IgM positivity.

On reevaluation he was tachycardic (pulse rate 104 per minute), hypotensive (BP 90/60 mm Hg) and

looked more pale than the previous examination. Hence an active intra-abdominal bleed was suspected. Intravenous fluid therapy was started and PRBC arranged. Vitals became stable with 1500ml of Normal saline infusion. Emergency contrast enhanced computed tomogram (CECT) of abdomen was taken in view of ongoing bleed. CECT abdomen showed post contrast blush suggestive of active bleeding which was confirmed in the delayed image by the presence of contrast extravasation (**Figure 3**). The retroperitoneal hematoma was extending from the left hypochondrium to left iliac fossa, with extension to the psoas muscle and producing a mass effect on the left kidney, which was displaced anteriorly (**Figure 4**).



**Figure 3:** CECT image with red arrow indicating contrast pooling



**Figure 4:** CECT showing a large retroperitoneal hematoma causing mass effect

Interventional radiologist was informed immediately and patient shifted to cathlab for embolization, directly from the emergency department. Angiogram showed active bleeding mainly from intercostal and lumbar arteries. Due to early embolization, bleeding was completely controlled and only one unit of PRBC was sufficient to keep the vitals normal.

## Discussion

In this case the patient presented as benign disease and ended up in a potentially fatal disease. Even though we did a thorough literature review, we could not find any case of dengue hemorrhagic fever with retroperitoneal hematoma which presented with constipation.

In this case constipation can be explained by adynamic intestinal obstruction. Ileus is due to the reflex paralysis of splanchnic and parasympathetic system caused by retroperitoneal hematoma [1]. Only bed side USG was the life saving investigation that helped us to find the hematoma which indirectly helped to detect an ongoing bleed. This also highlights the importance of using ED adjuncts like USG routinely.

Whenever a patient presents with constipation, he deserves a detailed evaluation rather than simply prescribing a laxative. Always start evaluation after asking for associated symptoms like abdominal pain. If any such symptoms present, evaluation should be directed towards that symptom and its etiology. While considering constipation as a final diagnosis, we have to be as cautious as looking at a small ice berg in the sea [2].

Early embolization was so helpful in a manner that it avoided the need of massive transfusion and further complications.

## References

1. Karabin JE. Retroperitoneal hemorrhage (Abstract). *Ann Surg.* 1941; 114(1):157.
2. Rosen's Emergency Medicine 9th Edition. Constipation:Diagnostic algorithm: 2017; 29:257-258.