

## Splenic Rupture

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## The Case

A 26 year old Indian man presented with recurrent left-sided abdominal pain and nausea to the emergency department. He had just returned from India few days ago and had just recovered from an upper respiratory tract infection. There was generalized abdominal tenderness. A bedside ultrasound revealed free fluid in the spleno-renal pouch. A Computed Tomography (CT) of abdomen and pelvis (Figure 1) showed presence of high-density fluid adjacent to the inferior pole of the spleen with haemoperitoneum. These findings were consistent with splenic rupture. The patient was subsequently tested positive for dengue.



Figure 1: High-density fluid adjacent to the inferior pole of the spleen.

## Discussion

Dengue is a common mosquito-transmitted viral infection that is estimated to affect 50 to 100 million people worldwide each year [1]. Patients infected with dengue can have varied atypical and multisystemic presentations. To date, fewer than 15 cases of spontaneous splenic rupture due to dengue have been reported in the medical literature [2,3]. In these reported cases, the common clinical presentation was fever and abdominal pain with or without hemodynamic instability. Thrombocytopenia appeared to be a consistent feature. Splenectomy was performed for most of these patients. The pathogenesis of dengue haemorrhagic fever is unclear. The spleen is frequently congestive with subcapsular hematomas in 15% of cases [4]. This may predispose to spontaneous rupture in the absence of trauma. This can be misinterpreted as dengue shock syndrome which has a similar presentation. It is thus imperative to suspect and diagnose spontaneous splenic rupture which can be fatal. Management is dependent on the patient's hemodynamic status. Conservative treatment can be used but splenectomy is recommended for patients who deteriorate or needing more than 2 units of blood [3]. This case highlights the importance of recognizing this rare but potentially fatal complication of dengue by the emergency physician.

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