International Journal of Research in Medical Sciences
Kaur H et al. Int J Res Med Sci. 2017 Jan;5(1):354-356
www.msjonline.org
pISSN 2320-6071 | eISSN 2320-6012

DOI: http://dx.doi.org/10.18203/2320-6012.ijrms20164578

Case Report

Rectus sheath haematoma complicating dengue haemorrhagic fever-a case report

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Received: 28 October 2016
Revised: 04 November 2016
Accepted: 29 November 2016

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ABSTRACT

Dengue hemorrhagic fever manifests in various forms, ranging from petechial skin hemorrhages to life threatening hemorrhages. However it is very rare to have muscle hematomas in this condition. We report a case of spontaneous Rectus sheath hematoma complicating dengue hemorrhagic fever. Our patient was a 55 year old female positive for NS1antigen and anti-dengue IgM. She had thrombocytopenia with platelet counts as low as 12000 in the beginning. There was evidence of plasma leakage and acute dyspnoea during the course of illness. On the 5th day though the platelet count had recovered she developed haematoma in the left rectus sheath which was diagnosed on ultrasound and aspirated leading to relief of symptoms. This complication needs to be recognized so that it can be treated early.

Keywords: Dengue hemorrhagic fever, Rectus sheath haematoma, Thrombocytopenia

INTRODUCTION

Dengue has become a major global public health concern. Dengue virus causes a wide spectrum of illness from mild asymptomatic illness to severe fatal dengue haemorrhagic fever and dengue shock syndrome (DHF/DSS).[1] Haemorrhagic tendency is shown by a positive tourniquet test, petechiae, epistaxis, hemorrhage and thrombo-cytopenia. In some patients, there is leakage of plasma from the blood vessels which is manifested by pleural effusion and ascites. Shock occurs in severe cases. Dengue shock syndrome and dengue hemorrhagic fever occur in less than 5% of all cases of dengue.

Dengue hemorrhagic fever manifests in various forms, ranging from petechial skin hemorrhages to life threatening cerebral, pulmonary, gastrointestinal and genitourinary hemorrhages. However it is very rare to have muscle hematomas in DHF. We report a case of spontaneous Rectus abdominis muscle hematoma complicating dengue hemorrhagic fever. Only 3 cases of spontaneous muscle hematomas occurring in the rectus sheath in DHF have been reported in the literature.[2-4] Psoas muscle haematomas have also been reported.[5,6] Khalid et al pointed out that both his patients were more than 70 years old with low immunity.[3]

CASE REPORT

Present patient was a 55 year old female who presented with H/O fever and malaise on Oct 2016 in SGRD Medical College, Amritsar, Punjab, India. She was found to be positive for NS1Ag and IgM antibody. She was not a known hypertensive and her BP remained normal throughout her stay in the hospital though few days later after she was discharged she returned with a complaint of vertigo on one occasion and was detected to have a BP of 190 /100. On initial investigation TLC was 6300 /mm^3 and platelet count was 29000/mm^3. Next day the platelet count decreased to 12000 /mm^3. It fluctuated between 14000-28000 /mm^3 for the next 3-4 days after which it started rising.

Patient was given single donor and random donor platelet transfusions. There was mild haemoptysis on one occasion. Eccymosis were present on the arms (Figure 1). S bilirubin was 2.5mg. Renal Function Tests were normal. Prothrombin index was 93.3%. Ultrasound showed hepatomegaly with liver parenchymal changes, mild to moderate ascites and mild left sided pleural effusion. Gall bladder was thickened and oedematous.

On the 3rd day of hospitalization, the patient developed periorbital swelling along with severe, persistent cough and acute breathlessness which took 3-4 days to subside. ECG was normal. Echocardiography showed normal LV function with concentric hypertrophy.

Figure 1: Ecchymosis on the arms.

When finally things seemed to be settling down on the 6th day with platelet count around 1 lakh/mm^3 the patient complained of severe pain in the abdomen. She was found to have tenderness and swelling on the left side of the abdomen in the lower part. A repeat ultrasound of abdomen showed a collection in the left rectus sheath (Figure 2) which was aspirated under ultrasound guidance after which the pain was relieved and the patient was finally discharged following a tumultuous course.

Figure 2: Rectus sheath haematoma.

DISCUSSION

DHF not only includes patients with a bleeding tendency but also those with features of increased capillary permeability like pleural effusion and ascites which were present in our patient. This patient was interesting in that in addition to the above findings she had marked periorbital puffiness along with cough and orthopnoea and features of heart failure all of which subsided after 2 to 3 days. The swelling around the eyes has not been reported in previous cases of dengue. The patient denied any history of hypothyroidism and her thyroid profile was normal. Urine examination did not reveal albumin or RBC or any evidence of a glomerular disease. Renal Function Tests were normal. Blood sugar levels remained normal throughout her stay although on 1occasion +++ sugar was observed in urine. One episode of hypertension with BP of 190 /100 after discharge with concentric hypertrophy on echocardiography suggests the possibility of underlying hypertensive heart disease which could have been aggravated by the increased capillary permeability induced by dengue.[7]

The bleeding in patients with dengue fever results from a combination of thrombocytopenia, increased vascular fragility, dysfunctional surviving platelets and increased fibrinolysis. The patient experienced a severe form of dengue with marked thrombocytopenia persisting for 2-3 days. It is known that it is at the time of defervescence, when fever abates, that the critical phase takes over and signs of circulatory failure or haemorrhagic manifestations appear. The present report shows that spontaneous RSH developed on Day 6 in agreement with previous reports.[3] RSH of the anterior abdominal wall is caused by the rupture of superior or inferior epigastric artery, their branches or a tear of the rectus muscle. It is possible that it is precipitated by the persistent cough and usually presents as pain of moderate severity in the lower quadrants of the abdomen along with a mass/swelling which may cross the midline.[8] The haematoma was easily picked up by ultrasound and needle aspiration immediately relieved the severe pain.

CONCLUSION

It is important to be vigilant in the convalescent phase of dengue fever for bleeding complications like muscle haematomas which can be diagnosed and treated effectively if the physician is aware of this complication. There should be a high index of suspicion in patients with marked thrombocytopenia and features of increased capillary permeability.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

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Cite this article as: Kaur H, Girgila K. Rectus sheath haematoma complicating dengue haemorrhagic fever-a case report. Int J Res Med Sci 2017;5:354-6.