Menorrhagia in Adoloscent Girls with Dengue Fever: A Case Series in AIMS, BG Nagar

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Abstract:

Dengue fever, a common tropical viral infection, can present with various symptoms, including thrombocytopenia and bleeding abnormalities. While its clinical manifestations are well-documented, certain rare occurrences, such as gynecological bleeding, are less commonly discussed. This study investigates the association between dengue fever and menorrhagia in adolescent girls, focusing on a case series of 9 such patients. These patients were admitted with complaints of fever, abdominal pain, headache, and ongoing menstruation, all accompanied by excessive menstrual bleeding. Detailed clinical evaluation revealed thrombocytopenia, and dengue serology tests were positive, leading to the diagnosis of dengue hemorrhagic fever (DHF). A Pictorial Blood Loss Assessment Chart (PBAC) was utilized to assess menstrual bleeding, with all 9 patients demonstrating a PBAC score of ≥100, indicative of menorrhagia. The study highlights the strong association between dengue infection and excessive menstrual bleeding, a condition not often recognized in clinical settings. Our findings emphasize the importance of early recognition and management of menorrhagia in adolescent girls with dengue fever to prevent complications. Effective management strategies, including regular monitoring and tailored therapeutic approaches, are crucial for improving patient outcomes. Further research is recommended to establish specific clinical guidelines for managing menorrhagia in the context of dengue hemorrhagic fever, thereby enhancing the care of affected individuals.

Keywords: **Dengue fever, Menorrhagia, Adolescents, Thrombocytopenia, Pictorial Blood Loss Assessment Chart**

DOI Number: 10.14704/nq.2025.23.1.NQ25040 NeuroQuantology2025;23(1):352-354

1. Introduction

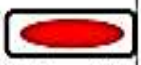
Dengue is a well-known tropical viral infection that can result in bleeding abnormality due to severe thrombocytopenia. However, a rare presentation can be sometimes detected in clinical practice [1]. The gynaecological bleeding is of interest, dengue can co-present with menstruation and this can lead to severe dysmenorrhea and excessive menstrual bleeding [2].

2. Case Presentation

In a period of 8 months we received 9 cases of adolescent girls with complaints of Fever, Pain abdomen, Headache (with ongoing menstruation). After collecting detailed history, they gave history of menstruation with excessive bleeding in the present menstrual cycle. However, the symptoms did not improve and the patients had high fever (38.5 C) and low blood pressure (BP 90/ 50 mmHg). Due to severe illness, the case was consulted for examination of the cause of bleeding. There were many petechiae on limbs of the patient. The investigation showed thrombocytopenia. Further investigation showed positive dengue serology test. They were finally diagnosed to be a case with dengue haemorrhagic fever. A pictorial blood loss assessment chart (PBAC) score was used for estimating the amount of menstrual bleeding. After

detailed evaluation and considering their previous menstrual cycles, all 9 were menorrhagia. (PBAC score of ≥ 100 points).

Month: _____

	Pads			Tampons			Clots		Flooding	Score
Date	Light (1 pt each)	Medium  (5 pts each)	Heavy (20 pts each)	Light (1 pt each)	Medium (5 pts each)	Heavy (10 pts each)	5 cent size (1 pt each)	50 cent size (5 pts each)	1 pt each episode	
1										
2										
3										
4										
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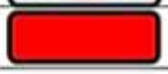
31										
									Total	

eISSN: 1303-5150

PBAC Scoring System

Pads		
1 point	For each lightly stained pad	
5 points	For each moderately stained pad	
20 points	For each completely saturated pad	
Tampons		
1 point	For each lightly stained tampon	
5 points	For each moderately stained tampon	
10 points	For each completely saturated tampon	
Clots/Flooding		
1 point	For each small clot (Australian 5 cent coin)	
5 points	For each large clot (Australian 50 cent coin)	
5 points	For each episode of flooding	

3. Discussion

Dengue fever is a benign syndrome caused by several arthropod-borne viruses and is characterized by biphasic fever, myalgia or arthralgia, rash, leukopenia, and lymphadenopathy. Dengue haemorrhagic fever is a severe, often fatal, febrile disease caused by 1 of 4 dengue viruses. It is characterized by capillary permeability, abnormalities of haemostasis, and, in severe cases, a protein-losing shock syndrome (dengue shock syndrome), which is thought to have an immunopathology basis. Menorrhagia though unusual in most patients with dengue fever, our study showed strong association of dengue fever with excessive menstruation which was graded as per PBAC scoring system with score of ≥ 100 points which is suggestive of Menorrhagia.

4. Conclusion

In conclusion, the intersection of menorrhagia and dengue hemorrhagic fever in adolescent girls presents a significant clinical challenge. Our study highlights the need for heightened awareness and prompt intervention to manage these concurrent conditions effectively. Comprehensive care strategies, including careful monitoring and tailored therapeutic approaches, are essential to improve outcomes and reduce morbidity in this vulnerable population. Future research should focus on developing specific guidelines to optimize the management of menorrhagia in the context of dengue hemorrhagic fever.

5. References

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