

# Another heart-pounding dengue case that could thump your heart!

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## 1 INTRODUCTION

Dengue fever with cardiac involvement is not uncommon. The cardiac signs are wide-ranging from myocarditis, transient arrhythmia, to life-threatening cardiogenic shock.

## 2 CASE REPORT

A 54-year-old gentleman presented to our Emergency Department with sudden onset of chest pain and palpitation on day 2 of fever. Physical examination revealed a well oriented male with febrile temperature, heart rate 220 beats/min and blood pressure 70/50 mmHg. The initial electrocardiogram (ECG) demonstrated fascicular ventricular tachycardia (VT) (*Figure 1*). In view of hypotension, decision for synchronized cardioversion has been made and the fascicular VT was reverted to normal sinus rhythm (*Figure 2*). His complete blood count showed thrombocytopenia and leucopenia. Dengue NS1 Antigen was positive. Cautious fluid resuscitation was administered according to National Dengue Guideline. The urgent echocardiogram was reported to be normal. An increment trend was observed in his serial cardiac markers. Hence, the diagnosis of severe dengue complicated with dengue myocarditis was made. He was admitted to ICU for close monitoring and has recovered well subsequently.

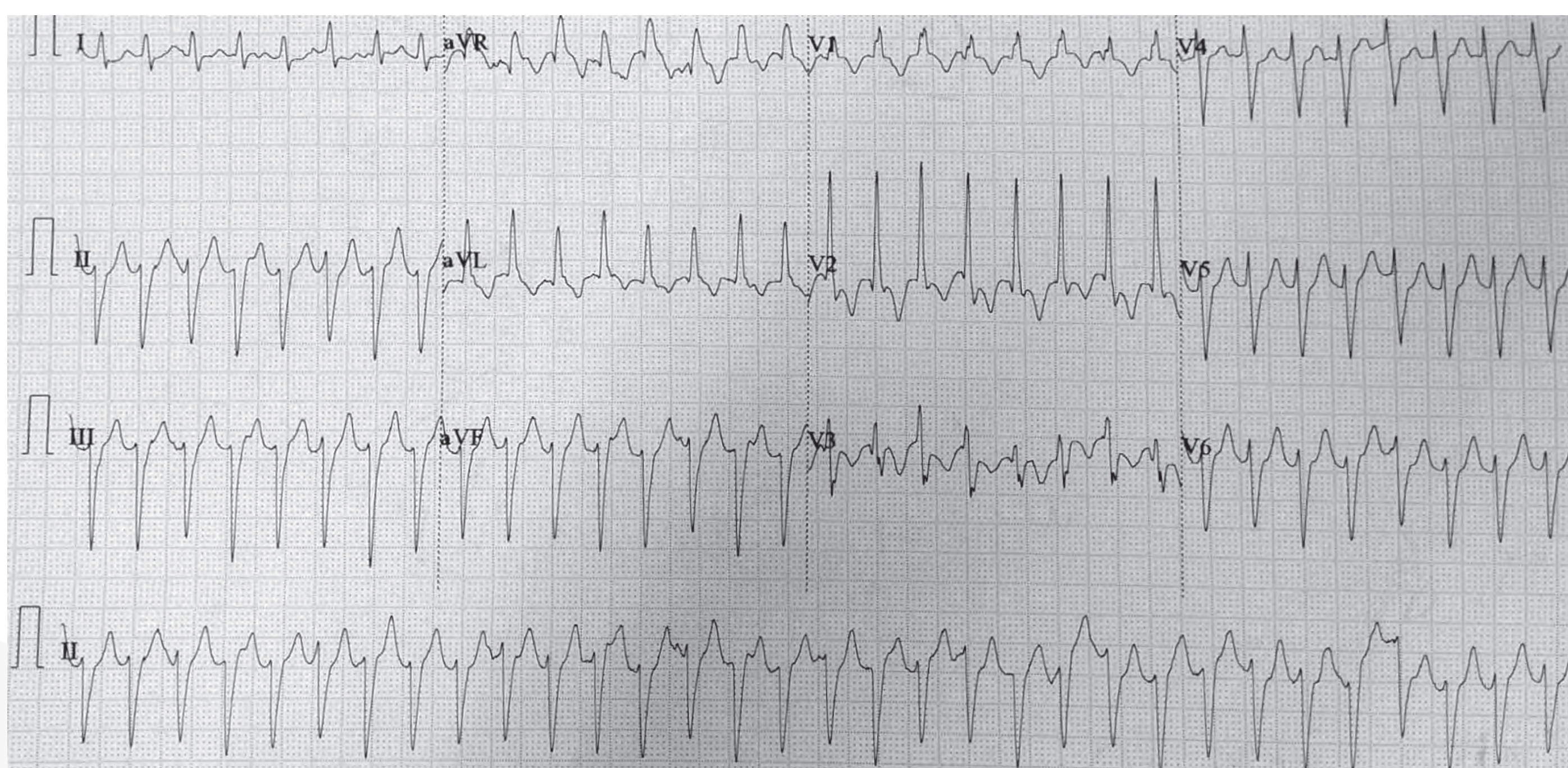


Figure 1: Broad complex, regular tachycardia at 200/min, QRS 120ms, rS complexes in II, III, AVF, left axis deviation, RBBB in v1-2, complete AV dissociation with no capture or fusion beats, suggestive of left posterior fascicular tachycardia.

## 3 DISCUSSION AND CONCLUSION

- Although rare, cardiac involvement in dengue fever has been reported sporadically and vary considerably.
- Ventricular tachycardia could be one of these infrequent cardiac complication of dengue fever.
- Future works are warranted to investigate further on how the disease causes various atypical cardiac manifestations.
- Emergency doctors are warranted to have high index of suspicion for dengue virus infection as an etiology in patients with acute undifferentiated and unstable febrile illness, especially in tropical areas.
- The key factors to survive dengue myocarditis relies on prompt recognition of myocardial involvement in dengue fever, rapid restoration of hemodynamic stability, meticulous fluid administration while avoiding fluid overload and frequent reassessment to detect dynamic changes as disease progresses.
- Echocardiogram derived hemodynamic parameters should be used to guide fluid therapy in patients with dengue myocarditis in future.

## 4 REFERENCES

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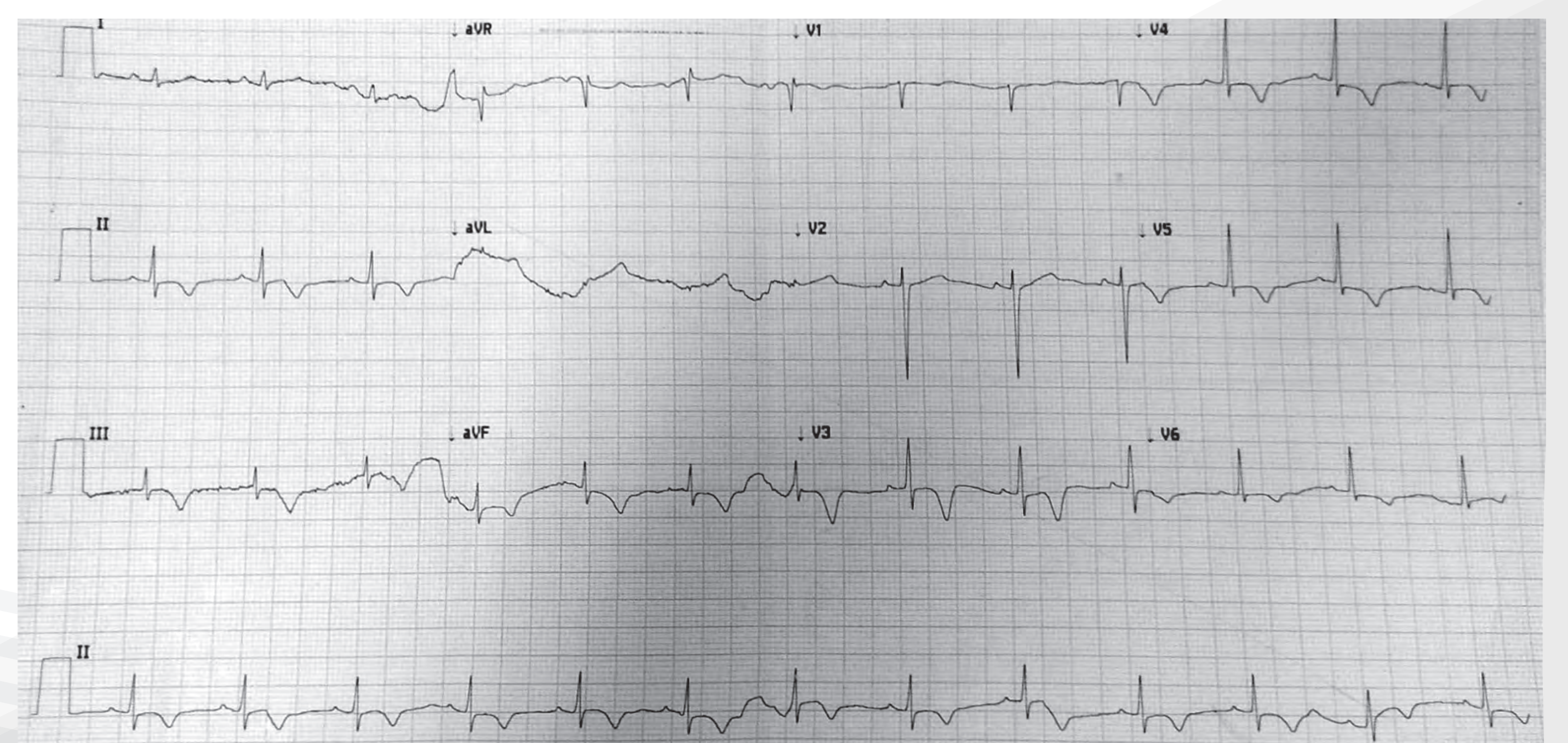


Figure 2: ECG post synchronised cardioversion. Sinus rhythm at 80/min, normal axis, T inversion at II, III, aVF, v3-6

