



Minimally Invasive Surgery in Dengue Patient

Sora Yasri,^{1*} and Viroj Wiwanitkit²

¹KMT Primary Care Center, Bangkok, Thailand

²Visiting Professor, Hainan Medical University, China

*Corresponding author: Sora Yasri, KMT Primary Care Center, Bangkok, Thailand. E-mail: sorayasri@outlook.co.th

Received 2017 October 02; Revised 2017 November 01; Accepted 2017 November 02.

Keywords: Dengue Fever, Minimally Invasive Surgery, Dengue Virus

Dear Editor,

Dengue is an important arbovirus infection that becomes the public health threaten in several countries, at present. The expansion of the endemic area to non-tropical area results in new emerging infection in several countries. The dengue is generally an acute febrile illness with hemorrhagic complication (1). The hemorrhagic complication in dengue has a wide clinical spectrum and it is sometime serious (2). The requirement of surgical management is sometimes an important concern for the surgeon. Some dengue patients with severe bleeding such as massive gastrointestinal bleeding might need surgical management and the minimally invasive surgery plays an important role in those cases. The endoscopic management is proved useful in that situation (3, 4). Nevertheless, the transfusion is usually required for correction of the hemostatic problem in those cases since only endoscopic injection treatment is usually not adequate for management (5). The recommendation on using minimally invasive surgery in dengue patient is still controversial. Some studies report that, the minimally invasive surgery in dengue patient is discouraged due to the limitation of effectiveness (6). According to a recent report from Malaysia, Ng et al. concluded that “early surgical intervention in perforated gastric ulcer is vital in preventing further complication and reducing the risk of mortality (7).” In case with suspicious hemoperitoneum due to dengue, the laparoscope approach is also reported as a safe diagnostic approach (8). In order to select a minimally invasive surgery in dengue patient, several considerations, especially patient’s condition are important. A supportive primary prevention by recombinant hemostatic agent should be considered in case with high risk (9). In case which require emergency surgery, the use of classical approach is indicated and the appropriated plan for platelet transfusion helps improve clinical outcome (10). A specific study in this issue is interesting and recommended.

Footnote

Conflict of Interest: None.

References

1. Wiwanitkit V. Dengue fever: diagnosis and treatment. *Expert Rev Anti Infect Ther*. 2010;**8**(7):841-5. doi: 10.1586/eri.10.53. [PubMed: 20586568].
2. Wiwanitkit V. Bleeding and other presentations in Thai patients with dengue infection. *Clin Appl Thromb Hemost*. 2004;**10**(4):397-8. [PubMed: 15497028].
3. Wang JY, Tseng CC, Lee CS, Cheng KP. Clinical and upper gastroendoscopic features of patients with dengue virus infection. *J Gastroenterol Hepatol*. 1990;**5**(6):664-8. [PubMed: 2129837].
4. Perng DS, Jan CM, Wang WM, Lan TS, Chen LT, Chen CY, et al. [Gastroduodenoscopic findings and clinical analysis in patients with dengue fever]. *Gaoxiong Yi Xue Ke Xue Za Zhi*. 1989;**5**(1):35-41. [PubMed: 2786571].
5. Chiu YC, Wu KL, Kuo CH, Hu TH, Chou YP, Chuah SK, et al. Endoscopic findings and management of dengue patients with upper gastrointestinal bleeding. *Am J Trop Med Hyg*. 2005;**73**(2):441-4. [PubMed: 16103618].
6. Lim CH, Benjamin NH, Kan FK. Upper gastrointestinal haemorrhage in severe dengue: To scope or not to scope?. *Med J Malaysia*. 2017;**72**(1):55-7. [PubMed: 28255142].
7. Ng CY, Lee SL, Foo SL. Perforated gastric ulcer in severe dengue infection: A case report. *Med J Malaysia*. 2017;**72**(4):244-5. [PubMed: 28889137].
8. Chandrashekar NK, Krishnappa R, Reddy CS, Narayan A. Hemoperitoneum in dengue Fever with normal coagulation profile. *J Glob Infect Dis*. 2013;**5**(1):29-30. doi: 10.4103/0974-777X.107172. [PubMed: 23599615].

9. Squizzato A, Ageno W. Recombinant activated factor VII as a general haemostatic agent: evidence-based efficacy and safety. *Curr Drug Saf.* 2007;**2**(2):155–61. [PubMed: [18690962](#)].
10. Thomas L, Kaidomar S, Kerob-Bauchet B, Moravie V, Brouste Y, King JP, et al. Prospective observational study of low thresholds for platelet transfusion in adult dengue patients. *Transfusion.* 2009;**49**(7):1400–11. doi: [10.1111/j.1537-2995.2009.02132.x](#). [PubMed: [19320862](#)].