To the Editors:

A prospective hospital-based study of dengue haemorrhagic fever

Recently a retrospective study was done on suspected cases of dengue haemorrhagic fever (DHF) admitted to the Lady Ridgeway Hospital (LRH) during 1996 (1). To verify the findings of the above study a prospective study was carried out on suspected cases of DHF admitted to a paediatric unit at LRH during 1999. The objective was to study the clinical, laboratory, radiological and serological diagnosis of DHF.

From each suspected case of DHF blood was taken for estimation of haematocrit, platelet count and serum transaminase, and a chest xray was taken in the right recumbent position. An acute and convalescent samples of blood, taken 1 to 2 weeks apart, were sent to the Medical Research Institute for dengue serology. The serological test used was the haemagglutination inhibition test (2).

To diagnose dengue infection a 4-fold rise of antibody titre between the acute and convalescent samples was necessary. If the antibody titre was equal to or >1: 2560 without a 4-fold rise, or if there was only one positive sample, dengue infection was presumed. If there was no 4-fold rise in antibody titre and the convalescent titre was < 1: 2560 dengue infection was excluded. A child with dengue infection having a combination of thrombocytopaenia (< 150 000/ μl) and haemoconcentration (haematocrit > 40% or increased by 20% or more over convalescent levels) was regarded as DHF (2,3).

In 1999, 51 suspected cases of DHF were admitted to the paediatric unit at LRH. Serologically, 46 had dengue infection and 5 had non-dengue fever (NHDF). 38 cases with dengue infection had laboratory evidence of DHF. There were no deaths. The 13 NHDF cases comprised 8 cases of dengue fever and 5 cases of non-dengue fever. Symptoms and signs of DHF and NHDF are shown in Table 1. Laboratory and radiological findings of DHF and NHDF are shown in Table 2.

Table 1. Clinical features in dengue haemorrhagic fever (DHF) and non-haemorrhagic dengue fever (NHDF)

Clinical feature	*DHF*	*NHDF*
Fever	38 (100%)	13 (100%)
Vomiting	36 (45%)	12 (92%)
Abdominal pain	17 (95%)	2 (15%)
Myalgia	2 (5%)	1 (8%)
Headache	2 (5%)	2 (15%)
Loss of appetite	12 (32%)	1 (8%)
Drowsiness	15 (39%)	3 (23%)
Coryza	1 (3%)	4 (31%)
Facial flushing	26 (68%)	7 (54%)
Loose motions	6 (16%)	1 (8%)
Gastrointestinal bleeding	10 (26%)	5 (38%)
Rash	10 (26%)	7 (54%)
Tender hepatomegaly	26 (68%)	6 (46%)
Non-tender hepatomegaly	10 (26%)	5 (38%)
Hess test	12 (32%)	5 (38%)

Table 2. Laboratory and radiological findings in DHF and NHDF

	DHF	*NHDF*
PCV >40%	31 (82%)	8 (62%)
PCV 40% or <	7 (18%)	5 (38%)
Platelet count		
<100 000/μm	26 (68%)	1 (8%)
100 000 – 150,000/ μm	12 (32%)	nil
Raised SGPT	26 (68%)	2 (15%)
Pleural effusion	33 (87%)	nil

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References

1. Lucas GN, Amerasinghe A, Sriranganathan S. Dengue haemorrhagic fever in Sri Lanka. *Indian Journal of Paediatrics* 2000; **67**: 503-4.
2. World Health Organisation. Technical guide for diagnosis, treatment, surveillance, prevention and control of dengue haemorrhagic fever for the South-East Asian and Western Pacific Regions. Geneva: WHO, 1980: 15-8.
3. Nimmannitya S. Clinical spectrum and management of dengue haemorrhagic fever. *Southeast Asian Journal of Tropical Medicine and Public Health* 1987; **18**: 392-7.

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Treatment of acute dystonia

Dystonia responds promptly to the anticholinergic benztropine 1-2 mg by slow intravenous injection. Most patients respond within 5 minutes and are symptom-free by 15 minutes. If there is no response the dose can be repeated after 10 minutes, but if that does not work then the diagnosis is probably wrong.

Campbell D. The management of acute dystonic reaction. *Australian Prescriber* 2001; **24**: 19-20.