To the Editors:

Preponderance of blood group B among dengue fever patients with serious complications in a tertiary care hospital

In the recent past dengue epidemics in Sri Lanka have caused considerable morbidity and mortality. A literature search revealed little information regarding those who are more susceptible to have serious forms of dengue fever. We observed that development of severe forms of the disease could be associated with certain blood groups, and did retrospective analysis of the case records of all patients admitted to Sri Jayawardenapura General Hospital adult medical wards with suspected dengue fever during March, April and May 2002.

Of 183 suspected dengue fever patients admitted, 146 (80%) were confirmed to have dengue fever. Of the confirmed cases, 7 (5%) had dengue haemorrhagic fever (DHF), 7 (5%) had dengue shock syndrome (DSS) and 132 (90%) had uncomplicated dengue fever (DF).

Among DF cases, O positive was the commonest (57%) blood group. Of DHF and DS cases 12 (85%) had B positive blood group.

Suspected dengue fever, confirmed dengue fever, DHF and DSS were defined in this study according to WHO guidelines and definitions, except that the confirmed cases had only one positive IgM antibody report on the 5th to 7th day of fever (1,2).

According to reported ABO and rhesus blood group distributions in Sri Lanka, the commonest blood group is O positive (43.42%), and second commonest is B positive (25.78%). A positive, AB positive and other blood groups accounted for 21%, 5.13% and 4.67% respectively (4). Those with the B positive blood group showed an overwhelming predilection (Table) to DHF and DSS (P value 0.00). This observation has not been reported previously. This association could help to predict complications of dengue. However, it needs to be confirmed by studying larger samples of dengue patients.

Table. Association between blood groups and DHF/DSS*

Blood group	Complication	No Complications	Totals
	DHF/DSS	DF	
B positive	12	24	36
Other group	2	102	104
Total	14	126	140

P = 0.00

* (Six were excluded, as blood groups were not available)

Research letters

Acknowledgements

We thank Dr. H H R Samarasinghe, and all staff members at SJGH for their co-operation and Dr. Rajitha Wickramasinghe, Senior Lecturer, Faculty of Medicine, Sri Jayawardenapura University, for his help in data interpretation.

References

1. Gibbons RV, Vaughn DW. Dengue: an escalating problem. *British Medical Journal* 2002; **324**: 1563-66.
2. World Health Organization. WHO recommended surveillance standards 1999; **2**: 39-40.
3. De Zoysa NS. The distribution of ABO and Rhesus blood groups in Sri Lanka. *Ceylon Medical Journal* 1985; **30**: 37-41.

D U S Bulugahapitiya, Registrar in Medicine, and **R L Satarasinghe**, Physician, Sri Jayawardenapura General Hospital, Nugegoda. (Correspondence: DUSP, telephones + 94 1 2669361 and + 94 1 0777 356105; e-mail: bulla@eureka.lk. Competing interests: None declared. Received 14 October 2002, revised version accepted 16 May 2003).