

Supplement files

Characteristic of DENV serotype, clinical manifestation, and laboratory parameters

The clinical manifestations and laboratory parameters associated with each DENV serotype. Among clinical symptoms, myalgia showed a significant increase in DENV-1 ($n = 87$, 88.8%) ($p < 0.001$). We found that the bleeding signs (gum bleeding, vaginal bleeding, epistaxis, blood in stool, and blood in vomit) were more frequently observed in DENV-2 than DENV-1, although the difference was not significant ($p = 0.053$). In contrast, the RBC count was slightly higher in DENV-1 than DENV-2 ($p = 0.058$). These results suggested that DENV-2 may be associated with a higher risk of developing severe disease compared to DENV-1 (Table S1).

Clinical features and laboratory parameters in primary and secondary infections

Most symptoms were significantly more frequent in secondary than primary DENV infection: fever ($n = 397$, 90.8%) ($p = 0.047$); myalgia ($n = 377$, 86.3%) ($p = 0.0002$); headache ($n = 375$, 85.9%) ($p < 0.0001$); nausea/vomiting ($n = 155$, 35.5%) ($p = 0.014$); arthralgia ($n = 194$, 44.4%) ($p < 0.0001$); tourniquet test ($n = 219$, 50.1%) ($p = 0.010$); rash ($n = 126$, 28.8%) ($p = 0.005$); sign of bleeding ($n = 79$, 18%) ($p = 0.004$); and abdominal pain ($n = 69$, 15.8%) ($p = 0.0003$). However, coma or shock and hepatomegaly were not different between groups. Together with laboratory parameters, the median platelet count was significantly lower in secondary infection (91, IQR = 53-151) ($p = 0.0004$).

Table S1: Differences in the Association of Clinical and Laboratory Parameters with Serotypes

Characteristic	DENV-1		DENV-2		<i>p</i> -value
	n = 98		n = 120		
	n	(%)	n	(%)	
Fever	98	(100)	115	(95.8)	0.066
Myalgia	87	(88.8)	88	(73.3)	0.005
Headache	85	(86.7)	113	(94.2)	0.064
Nausea/vomiting	22	(22.5)	26	(21.7)	>0.99
Arthralgia	20	(20.4)	35	(29.2)	0.159
Tourniquet test	39	(39.8)	53	(44.2)	0.581
Rash	23	(23.5)	37	(30.8)	0.286
Sign of bleeding*	7	(7.1)	18	(15)	0.053
Abdominal pain	6	(6.1)	16	(13.3)	0.112
Coma/Shock	2	(2)	8	(6.7)	0.106
Hepatomegaly	7	(7.1)	16	(13.3)	0.184
Laboratory parameter	Median	(IQR)	Median	(IQR)	<i>p</i> -value
WBC Count (10 ⁹ /L)	3.5	(2.5-4.8)	4	(2.8-6.3)	0.090
RBC Count (10 ¹² /L)	5.6	(4.9-6.1)	5	(4.3-5.3)	0.058
Hematocrit (%)	39.5	(35.2-41.9)	39.5	(35.3-43.9)	0.912
PLT Count (10 ⁹ /L)	135	(94.5-187.3)	110	(49-161)	0.098

Abbreviations: WBC, white blood cell; RBC, red blood cell; PLT, platelet; AST, aspartate aminotransferase.

*Signs of bleeding, including gum bleeding, vaginal bleeding, epistaxis, blood in stool, and blood in vomit. Data are n (%) or/and median (IQR).

Clinical features	Total (n = 615)		Primary (n = 178)		Secondary (n = 437)		p-value
	n	(%)	n	(%)	n	(%)	
Fever	514	(83.6)	152	(85.4)	397	(90.8)	0.047
Myalgia	508	(82.6)	131	(73.6)	377	(86.3)	0.0002
Headache	471	(76.6)	124	(69.7)	375	(85.8)	<0.0001
Nausea/vomiting	200	(32.5)	45	(25.3)	155	(35.5)	0.014
Arthralgia	226	(36.7)	32	(18)	194	(44.4)	<0.0001
Tourniquet test	288	(46.8)	69	(38.8)	219	(50.1)	0.010
Rash	158	(25.7)	32	(18)	126	(28.8)	0.005
Sign of bleeding*	95	(15.4)	16	(9)	79	(18)	0.004
Abdominal pain	78	(12.7)	9	(5)	69	(15.8)	0.0003
Coma/Shock	20	(3.3)	7	(3.9)	13	(3)	0.543
Hepatomegaly	58	(9.4)	14	(7.9)	44	(10)	0.396
Laboratory results	n	Med (IQR)	n	Med (IQR)	n	Med (IQR)	p-value
WBC Count (10 ⁹ /L)	206	3.5 (2.4-5)	53	3.6 (2.5-5.6)	153	3.5 (2.3-4.9)	0.362
Lymphocyte (%)	92	25 (17.8-35)	17	28.5 (13-35.4)	75	24.8 (19.2-35)	0.855
Neutrophil (%)	27	59 (53-71)	7	59 (53.4-86.5)	20	59 (51.75-70)	0.423
RBC Count (10 ¹² /L)	94	5 (4.5-5.8)	18	5 (4.7-5.9)	76	5 (4.4-5.7)	0.828
Hemoglobin (g/dl)	96	13 (11.7-15)	19	13.3 (11.7-15)	77	13 (11.7-14.8)	0.636
Hematocrit (%)	203	39.5 (35-44)	53	39.5 (35-43)	150	39.4 (32.2-44)	0.783
PLT Count (10 ⁹ /L)	199	108 (59-155)	52	130 (85.5-174)	147	91 (53-151)	0.0004
Creatinine (mg/dl)	48	0.9 (0.7-1)	9	1 (0.7-1)	39	0.9 (0.7-1.1)	0.672

Table S2: Clinical features and laboratory parameters in primary and secondary infection

Abbreviations: WBC, white blood cell; RBC, red blood cell; PLT, platelet; AST, aspartate aminotransferase.

*Signs of bleeding, including gum bleeding, vaginal bleeding, epistaxis, blood in stool, and blood in vomit. Data are n (%) or/and median (IQR).