

A case of dengue and COVID-19 co-infection in a young man from Malaysia

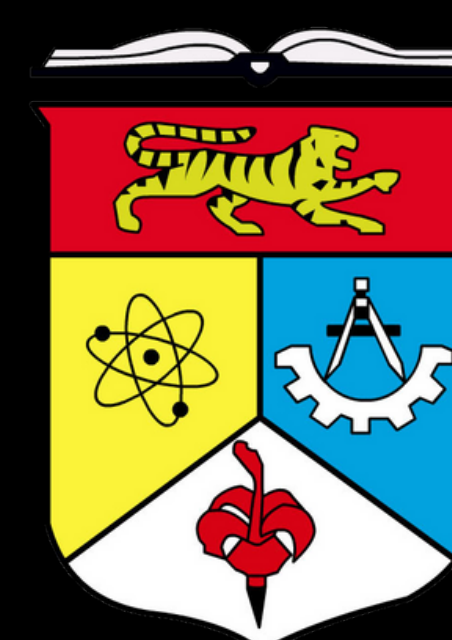


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BACKGROUND

As Malaysia is highly endemic to both dengue and SARS-CoV-2 infection, it is expected that co-infection can arise. Therefore, we describe a case of a young gentleman with dengue and SARS-CoV-2 co-infection.

CASE DESCRIPTION

A 24-year-old man presented to the emergency department with a fever for five days associated with arthralgia, myalgia, and productive cough. His vital are normal on presentation. His full blood count showed typical dengue parameters of leucopenia, thrombocytopenia, hemoconcentration, and normal hemoglobin. He came from a dengue-endemic area where recent fogging was held. His non-structural protein 1 antigen (NS1 Ag) using SD BIOLINE NS1 Ag on day 4 of illness done at the primary care clinic was positive, and his pre-admission screening for reverse transcription-polymerase chain reaction (RT-PCR) using LyteStar 2019-nCoV RT-PCR Kit at day 5 of the presentation was positive for SARS-CoV-2. His IgG and IgM for dengue serology using Bioline Dengue Duo RDT (Abbott, Republic of Korea) were also positive. He was treated conservatively with maintenance hydration which later off once he could tolerate it orally. At the end of ten days of the isolation course, his symptoms, leucopenia, hemoconcentration, and thrombocytopenia recovered.

	Day 5 of presentation NS1 positive (Febrile phase)	Day 6	Day 7 (Entering defervescence phase)	Day 8	Day 9	Day 10	Day 11 (Discharge Day)
WCC	1.8	2.7	3.7	5.2	5.1	5.4	5.3
Hb	14.5	15	14.5	14.3	13.2	15	14.6
Hct	44	43	41.7	41.1	39.6	43.9	43.7
Platelet	73	34	31	34	47	76	141

DISCUSSION

During this year's mid-year rainy season, Malaysia is simultaneously experiencing a pandemic of BA.5 variant of SARS-CoV-2 and dengue endemic that has already been there for decades. Dengue and SARS-CoV-2 infections could be associated with negative consequences. The overlapping clinical and laboratory characteristics of the disorders might make correct diagnosis and treatment difficult. Identification of SARS-CoV-2 in dengue-endemic locations is challenging due to the overlapping clinical presentations of SARS-CoV-2 infection and dengue and the complexity of interpreting results. Therefore, in regions where dengue is prevalent, a heightened state of awareness regarding the possibility of SARS-CoV-2 infection is warranted.

13. Case reports and case series (n<10)

13.

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	001245566 06/07/2022 15:02	001245577 06/07/2022 15:17	001245623 06/07/2022 17:41	001245682 06/07/2022 22:07	001246166 07/07/2022 14:18	001246315 08/07/2022 01:21	001246650 08/07/2022 12:33	001246755 08/07/2022 20:31	001246940 08/07/2022 09:17	001247011 09/07/2022 15:51	001247083 09/07/2022 23:26	001247196 10/07/2022 08:40	001247529 11/07/2022 08:59	Ref. Range
BA	- 0.0	-	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	[0.02 - 0.1]
EO	- 0.0	-	- 0.0	- 0.0	- 0.0	- 0.0	- 0.0	0.1	0.1	0.1	0.1	0.1	0.1	[0.02 - 0.5]
HCT	44.0	-	44.4	42.1	43.0	41.7	42.2	42.1	41.1	- 39.6	41.7	43.9	43.7	[40 - 50]
HGB	14.5	-	14.9	14.0	15.0	14.5	14.0	14.2	14.3	13.2	14.2	15.0	14.6	[13.0 - 17.0]
IG	0.03	-	0.01	0.02	0.02	0.03	0.02	0.05	0.02	0.03	0.03	0.02	0.04	
LY	- 0.6	-	- 0.6	- 0.7	1.3	2.3	1.8	2.5	1.8	1.9	2.3	1.8	1.8	[1.0 - 3.0]
MCH	27.5	-	27.9	27.6	28.3	28.1	27.6	27.5	28.3	27.4	27.9	27.9	27.5	[27 - 32]
MCHC	33.0	-	33.6	33.3	+ 34.9	+ 34.8	33.2	33.7	+ 34.8	33.3	34.1	34.2	33.4	[31.5 - 34.5]
MCV	83.5	-	83.0	83.0	- 81.1	- 80.8	83.2	- 81.6	- 81.2	- 82.3	- 81.9	- 81.6	- 82.5	[83 - 101]
MO	0.2	-	0.2	0.2	0.3	0.4	0.7	0.4	0.4	0.4	0.5	0.4	0.6	[0.2 - 1.0]
MPV	11.2	-	11.6	11.6	11.2	10.7	11.9	+ 12.4	11.5	+ 12.2	+ 12.6	+ 12.2	+ 12.4	[8.9 - 11.9]
NE	- 1.0	-	- 1.1	- 1.4	- 1.1	- 0.9	- 1.4	- 1.5	- 1.3	- 1.4	- 1.7	- 1.6	3.2	[2.0 - 7.0]
NRBC	0.00	-	0.00	0.00	0.00	0.00	0.00	+ 0.01	0.00	0.00	0.00	0.00	0.00	[0.0 - 0.0]
PLT	- 73	-	- 76	- 62	- 34	- 31	- 30	- 33	- 34	- 47	- 66	- 76	- 141	[150 - 410]
RBC	5.3	-	5.4	5.1	5.3	5.2	5.1	5.2	5.1	4.8	5.1	5.4	5.3	[4.5 - 5.5]
RDW	12.3	-	12.3	12.5	12.6	12.3	12.5	12.3	12.6	12.1	12.2	12.5	12.5	[11.6 - 14.0]
WBC	- 1.0	-	- 1.0	- 2.3	- 2.7	- 3.7	- 3.9	4.4	- 3.7	- 3.7	4.6	- 3.9	5.7	[4 - 10]
pBA	0.0	-	0.0	0.0	0.0	0.3	0.5	0.2	0.5	0.5	0.4	0.5	0.2	[1 - 2]
pCD	- 0.6	-	- 0.0	- 0.0	- 0.0	- 0.8	- 0.5	1.1	1.6	1.6	1.7	2.1	1.7	[1 - 6]
IG%	1.7	-	0.5	0.9	0.8	0.8	0.5	1.1	0.5	0.8	0.7	0.5	0.7	
pLY	34.9	-	30.6	30.7	+ 50.6	+ 63.0	+ 46.8	+ 55.7	+ 49.6	+ 50.3	+ 50.8	+ 45.6	30.7	[20 - 40]
pMO	9.7	-	9.8	9.1	9.4	+ 10.1	+ 17.6	9.1	+ 11.5	+ 10.8	+ 11.3	+ 11.1	+ 11.2	[2 - 10]
pNE	54.8	-	59.6	60.2	40.0	- 25.8	- 34.6	- 33.9	- 36.8	- 36.8	- 35.8	40.7	56.2	[40 - 80]
pNRBC	0.0	-	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	[0 - 0]

Table 1: Serial FBC result

Keyword 1

Viruses and clinical virology

Keyword 2

COVID-19

Keyword 3

Dengue

Conflicts of interest

Do you have any conflicts of interest to declare?

No



33rd

ECCMID

Copenhagen, Denmark
15–18 April 2023

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Basel, 28th April 2023

ECCMID 2023 Paper Poster presentation certificate

To whom it may concern:

We hereby confirm that the below abstract was submitted, accepted, and presented at the 33rd ECCMID (European Congress of Clinical Microbiology and Infectious Diseases), which took place in Copenhagen, Denmark, from 15 – 18 April 2023.

Poster Title: A case of dengue and COVID-19 co-infection in a young man from Malaysia

Presenting Author: Zainulabid Ummu Afeera

Authors and Affiliation: Nurul Aisyah RAPAI KASINI (1), Ummu Afeera ZAINULABID (1, 2), Rashida SAFIUDDIN (1), Wan Husna Barakah MEOR JAMALUDIN (1), Najma KORI (1), Petrick PERIYASAMY (1) - (1) Hospital Canselor Tuanku Muhriz UKM, Malaysia, (2) International Islamic University Malaysia (1) Hospital Canselor Tuanku Muhriz UKM, Malaysia, (2) International Islamic University Malaysia

Session Title: 13a. Viral infections

Abstract/ePoster Number: 6483/P3165

Sincerely yours,

Jacob Moran-Gilad
ECCMID Programme Director



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Presenting Author: Zainulabid Ummu Afeera

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Sincerely yours,

Jacob Moran-Gilad
ECCMID Programme Director



Ummu Afeera Zainulabid <ummuafeera@gmail.com>

Fwd: ECCMID 2023 - Your abstract result

UMMU AFEERA BINTI ZAINULABID . <ummuafeera@iium.edu.my>
To: Ummu Afeera <ummuafeera@gmail.com>

30 January 2023 at 21:43

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From: **ECCMID Secretariat** <eccmidinfo@escmid.org>

Date: Mon, 30 Jan 2023 at 8:51 PM

Subject: ECCMID 2023 - Your abstract result

To: <ummuafeera@iium.edu.my>

33rd ECCMID **Copenhagen, Denmark**
15–18 April 2023

The congress of  **ESCMID**

Basel, 30/01/2023

Dear Ummu Afeera Zainulabid,

Thank you for submitting an abstract to the 33rd European Congress of Clinical Microbiology and Infectious Diseases - [ECCMID 2023](#).

Abstract number: 06483

Title: **A case of dengue and COVID-19 co-infection in a young man from Malaysia**

The ECCMID 2023 Programme Committee is pleased to inform you that your abstract has been accepted for an poster presentation, and allocated to the following session:

Session type: Poster Session

Poster number : P3165

Session title: 13a. Viral infections

Session date: 18/04/2023

Session time and location : 12:00 in Poster Area

Due to the hybrid nature of ECCMID 2023, in addition to the paper posters presented onsite, all accepted posters must be uploaded as ePoster to our platform no later than the **1st of April 2023**. You will receive ePoster upload detailed instructions after you complete registration for the congress.

Please make sure to include the provided poster number on the printed and electronic versions of your poster. You will find additional [technical instructions](#) and poster [templates](#) on our website

If you are not the presenting author of this abstract, please forward this notification to the presenting author and inform the Abstract Team at eccmidabstracts@escmid.org.

Please note

- the upcoming ECCMID 2023 will take place in Copenhagen, Denmark, on **15-18 April 2023** as a hybrid event. In addition to onsite presence, the event will be live-streamed online for participants unable to join us in Copenhagen
- the presenting author must register before **1st of April 2023**. Abstracts without a registered presenting author will not be included in the final ECCMID 2023 programme
- if you are unable to attend onsite or online, please inform us about abstract withdrawal before **1st of April 2023**
- early-bird registration is available until the **8th of February 2023**

To register now, please visit the [congress website](#). For any inquiries regarding registration please get in touch with eccmidregistration@escmid.org.

ECCMID 2023 registration includes access to six online-only events that will take place before and after the congress. The [Pre- & Post-ECCMID Days](#) are an integral part of the 2023 scientific programme and will feature the following:

Pre-ECCMID events

- Emerging Public Health challenges - 15th February 2023, 16:00 - 19:00 CET
- Global Health issues post-COVID - 16th February 2023, 16:00 - 19:00 CET
- Controversies in AMS - 15th March 2023, 16:00 - 19:00 CET
- AMR - old problems, new challenges - 16th March 2023, 16:00 - 19:00 CET

Post-ECCMID events

- Viral diseases, just not COVID - 24th May 2023, 16:00 - 19:00 CEST
- Advances in infection diagnosis - 25th May, 16:00 - 19:00 CEST

We congratulate you on the acceptance of your abstract and are looking forward to seeing you in Copenhagen. If you have any questions or need assistance, please contact us at eccmidabstracts@escmid.org.

Yours sincerely,

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