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Introduction

Human Respiratory Syncytial Virus (HRSV) has affected an estimation of 33.1 million children under 5 years old, which includes 3.6 million of hospitalization and 101,000 death in year 2019, worldwide. Knowledge of the circulating virus subtype is important for prevention and control strategies including effectiveness of currently available drugs and vaccines. In Malaysia, the Institute for Medical Research (IMR), National Institutes of Health (NIH) is one of the National Influenza Centre under World Health Organization (WHO) and involves in carrying out Severe Acute Respiratory Infection (SARI) surveillance programme under the Ministry of Health Malaysia.

Objective

The objective of this study is to detect HRSV subtype A and B in specimens collected from children aged under 5 years old hospitalized in Government Health facilities, from January 2023 till April 2023.

Methods



- Between January 2023 and April 2023, 55% (130/238) of respiratory specimens from hospitalised children under 5 years of age were received in IMR from all states in Malaysia. Samples were negative for influenza viruses.
- The samples were extracted by using QIAamp Viral RNA kit (QIAGEN, Germany).
- The extracted samples were screened for HRSV infection through Real-Time Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) assay (Wang L, *et al.*, 2019) by using Applied Biosystem QuantStudio Flex 6 Real Time PCR System (ThermoFisher Scientific, USA).

Results & Discussion

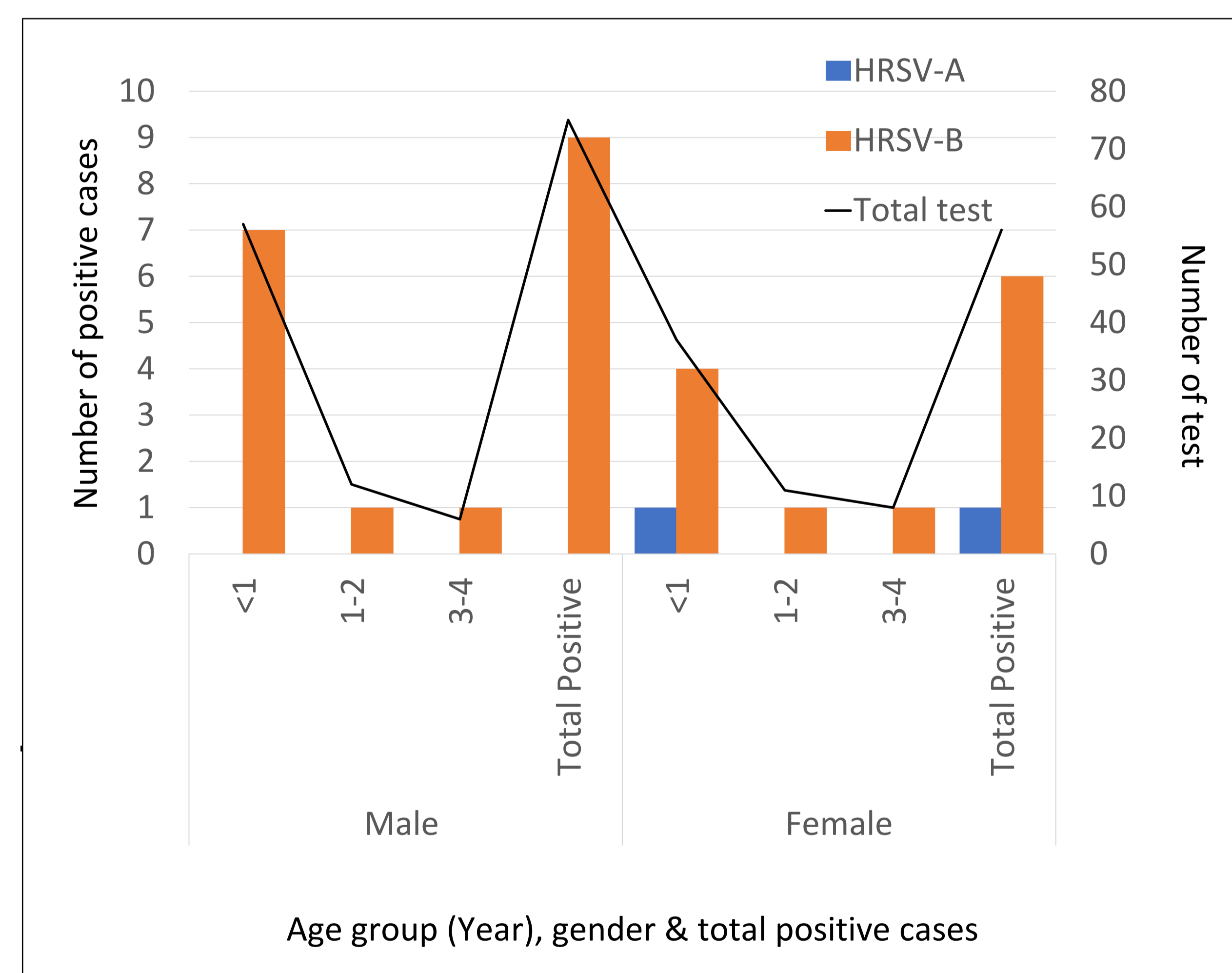


Figure 1: Number of HRSV-A & B infection based on age group.

Conclusion

- Study showed that infants aged <1 year old were mostly infected with HRSV-B.
- Among factors contributed to these findings are the inflammation of airways, immaturity of immune system among infants and unavailability of specific HRSV vaccine to control the HRSV infections in children.

References

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