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Editorial

Metapneumovirus: Post-Pandemic Panic

Indrajit Banerjee[1], MBBS, MD, Jared Robinson[2], MBBS, Vipul Yagnik[3,4], MS, FMAS, FAIGES, FAIS, FISCP, PGDCN

[1]Department of Pharmacology, Sir Seewoosagur Ramgoolam Medical College, Belle Rive, [2]Department of Surgery, Sir Seewoosagur Ramgoolam Medical College, Mauritius, [3]Department of Surgical Gastroenterology, Nishtha Surgical Hospital and Research, Patan, Gujarat, [4]Banas Medical College and Research Institute, Palanpur, Gujarat, India.

***Corresponding author:**
Indrajit Banerjee,
Professor, Department of Pharmacology, Sir Seewoosagur Ramgoolam Medical College, Belle Rive, Mauritius..

indrajit18@gmail.com

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INTRODUCTION

As the global economy and health systems are still recovering from the impact of the COVID-19 pandemic, both the public and international health agencies alike are hypervigilant and hypersensitive to the possibility of a similar outbreak occurring in the future. Another viral disease has begun to draw global attention and concern since December of 2024 with both a similar story and current spread to that of the early and initial phases of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic. The human metapneumovirus (HMPV) was discovered in 2001 and has affected us, causing mild flu and diseases mainly targeting the upper respiratory tract (URT). However, immunocompromised individuals and those aged <5 years may develop more life-threatening infections.[1,2]

VIROLOGY AND HISTORY

The HMPV most formally displays respiratory tropism and affects the URT, causing coryza, rhinorrhea, and a pharyngitis. HMPV resembles the respiratory syncytial virus. HMPV is part of the Paramyxoviridae family and was officially isolated and identified in 2001, but evidence leads scholars to believe that it has been circulating for a longer period before this. The virus most commonly occurs with a rise of infections noted during the change of seasons. The simple infection most commonly lasts <5 days, but in severe cases, the virus can lead to more severe infections effecting the lower respiratory tract such as bronchiolitis in the young, bronchitis, and even pneumonia.[3]

CURRENT SITUATION

HMPV gained global fame and dominated global headlines in the last week of December 2024. In China a pneumonia of unknown origin was identified by the Chinese Center for disease control and prevention. The Chinese Center for Disease Control and Prevention (China CDC) through sentinel surveillance strategies during this period identified a rise in HMPV-induced respiratory cases. It must be explicitly noted that the number of cases reported by the Chinese CDC were within the expected numbers for the "respiratory disease season, Furthermore, hospital utilization rates are lower for the same period as compared to the previous year. The sentinel surveillance identified a host of pathogens causing respiratory diseases within the region. The most common isolated pathogen being influenzae in the middle-aged population, mycoplasma being most

prominently isolated in those between 5 and 15 years of age. SARS-CoV-2 cases remain low with the predominant variant within the country being XDV.[4]

PANDEMIC POTENTIAL AND RISK ASSESSMENT

Currently the HMPV does not present as a pandemic or epidemic risk to the global community. The rise of respiratory infections such as HMPV is on par with seasonal variations in infection rates. Furthermore, HMPV has always been a pathogen well-known to cause the seasonal "flu" along with influenza, rhinovirus, and coronavirus. It is, however, evident that the concomitant rise in infections caused by the above pathogens may lead to an increased burden on healthcare facilities.[5]

METAPNEUMOVIRUS IN INDIA

India reported its first two cases of metapneumovirus on the 7th of January 2025 in Nagpur and by the 20th of January more than 15 cases of the virus had been confirmed present and reported by the Indian authorities. At, Assam has recorded one case, Gujarat five cases, and Puducherry three cases of metapneumovirus.[6] At present, in India, 67% of the metapneumovirus cases are found in children aged <1 year with the patients suffering from wheezing and seizures. The health authorities have cautioned citizens to take simple hygiene precautions to prevent the further spread of the virus but have also stated that the current cases pose no significant threat and are not yet a cause for concern.[7]

INTERNATIONAL RESPONSE AND PANDEMIC PANIC

The hint of an increase in a respiratory virus within Chinese boarders has caused an international stir, with media outlets sensationalizing the information. The response by the public and the media has been both irresponsible and potentially damaging to international collaboration between health agencies. The innate fear of another pandemic arising is understandable, but the dissemination as well as sensationalism of poorly constructed and interpreted data is of great concern. Numerous articles and headlines have stated false information such as China's health system being under tremendous pressure or collapsing due to the "outbreak" of the HMPV, which is not true.[8] China is well under control and the valuable information being freely provided by the Chinese health authorities is pertinent and should be an example to other agencies to track and keep the data of respiratory cases which traditionally rise during winter in the Northern hemisphere. Such misconstruing of information poses a great danger to international collaboration as countries may feel victimized if they share such data in the future. Other international health agencies have used the Chinese data for good and have further bolstered their surveillance as well as preparation of resources for the normal increase of respiratory cases which traditionally occur in the colder months.[9]

CONCLUSION

HMPV is no new pathogen to affect our hospitals and it does not currently pose a threat to global health systems nor provide enough evidence yet to be of a pandemic level risk. It is, however, pertinent that further surveillance and monitoring of the situation occurs through all international health agencies working in collaboration with one another. It must be explicitly noted that media agencies should be cautioned againstsensationalism of news as it may lead to a breakdown in vital international epidemiological collaboration which is vital to prevent pandemics in the future.

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