



Review Article

Theme: Recent Advances on Drug Delivery Systems for Viral Infections

Guest Editor: Claudio Salomon

Middle East Respiratory Syndrome (MERS) Virus—Pathophysiological Axis and the Current Treatment Strategies

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Abstract. Middle East respiratory syndrome (MERS) is a lethal respiratory disease with its first case reported back in 2012 (Jeddah, Saudi Arabia). It is a novel, single-stranded, positive-sense RNA beta coronavirus (MERS-CoV) that was isolated from a patient who died from a severe respiratory illness. Later, it was found that this patient was infected with MERS. MERS is endemic to countries in the Middle East regions, such as Saudi Arabia, Jordan, Qatar, Oman, Kuwait and the United Arab Emirates. It has been reported that the MERS virus originated from bats and dromedary camels, the natural hosts of MERS-CoV. The transmission of the virus to humans has been thought to be either direct or indirect. Few camel-to-human transmissions were reported earlier. However, the mode of transmission of how the virus affects humans remains unanswered. Moreover, outbreaks in either family-based or hospital-based settings were observed with high mortality rates, especially in individuals who did not receive proper management or those with underlying comorbidities, such as diabetes and renal failure. Since then, there have been numerous reports hypothesising complications in fatal cases of MERS. Over the years, various diagnostic methods, treatment strategies and preventive measures have been strategised in containing

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