

Monkeypox and Pregnancy: Protecting Two Lives

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Dear Madam, Monkeypox virus (MPXV), an emerging zoonotic disease, is becoming a global threat, with an unrelenting surge of cases all over Europe and America, prompting WHO to declare it an international concern on July 23rd, 2023. The recent outbreak and the scarcity of large-scale research on the effect of MPXV on pregnant women make this a notable topic. This viral infection is transmitted via a respiratory or cutaneous route and results in a rash resembling that of smallpox and systemic symptoms, which can occur before or shortly after the rash appears.¹

The current data suggests that pregnant women are at an increased risk of contracting monkeypox because of the physiologically reduced T-helper-1 cell immunity in pregnancy. Furthermore, most women in their reproductive age are not vaccinated for smallpox, an orthopoxvirus similar to monkeypox, and subsequently have no cross-protective immunity.² Despite the scarcity of research on MPXV in pregnancy, it has been concluded that, though most cases do not result in maternal mortality, foetal loss is likely to occur. A recent study found that, in a sample of MPXV-infected pregnant women, 39% had miscarriages, 8% had preterm deliveries, and only 23% carried to term.³ In another case, an infected mother had a preterm baby who presented with a generalised rash like the one seen in monkeypox.² Studies propose that 62% of MPXV-infected mothers transmit the infection to their offspring perinatally,³ which can be determined by the high viral load in foetal tissue, and findings like hydrops foetalis, hepatomegaly, and cutaneous lesions in the newborn.²

Though very little is known about effective treatment against the monkeypox virus, the current medical management involves supportive care as the disease is usually self-limited. Antivirals, such as tecovirimat, are offered in severe cases to pregnant and breastfeeding women and immunocompromised individuals.⁴ Other medical therapies previously used to treat other

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orthopoxviruses, such as smallpox, are currently used to treat MPXV. MVA-BN, a smallpox vaccine, has been found to confer 85% cross-protective immunity against MPXV in pregnant women without any known side effects. The ACAM2000 vaccine, however, is contraindicated in pregnancy as it can lead to premature birth and stillbirth.² Some studies encourage C-section deliveries in MPXV-positive mothers, especially those with anogenital lesions.² MPXV-positive mothers shouldn't breastfeed their MPXV-negative children, especially if they support lesions on their breasts. If they insist on breastfeeding their infants, the infant should be wrapped, and the mother should wear a face mask to avoid close contact. However, if the child is infected, no restrictions need to be placed.⁵ Intravenous vaccinia immune globulin (VIGIV) can safely be given to infected pregnant women, as there is no evidence yet to suggest the risk of any adverse events.² Neonates with MPXV-infected mothers should be given VIGIV² and a 3rd generation smallpox vaccine.⁵

In conclusion, it is crucial that the public, especially pregnant women, be aware of the threat that the MPXV currently imposes, as well as the preventive methods and treatment options currently available to ensure that maternal and foetal morbidity and mortality rates remain low.

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