Elsevier has created a Monkeypox Information Center in response to the declared public health emergency of international concern, with free information in English on the monkeypox virus. The Monkeypox Information Center is hosted on Elsevier Connect, the company's public news and information website.

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Monkeypox and pregnancy: correspondence

Check for updates

TO THE EDITORS: We read with great interest the correspondence of Mungmunpuntipantip and Wiwanitkit[1] written in response to the article on monkeypox and pregnancy by Dashraath et al[2] published in a recent issue of this journal. In their correspondence, Mungmunpuntipantip and Wiwanitkit state that there is no evidence for vertical transmission of the monkeypox virus (MPXV). However, these authors overlooked the article by Mbala et al[3] describing pregnancy outcomes following maternal monkeypox infections in the Democratic Republic of Congo that included 2 miscarriages and a fetal death. The mother of the stillborn fetus was a 22-year-old Congolese woman who developed monkeypox during the second trimester of pregnancy. In addition to having skin lesions, she developed viremia, which was confirmed by an MPXV–specific quantitative polymerase chain reaction (qPCR), that rose rapidly and abruptly upon cessation of fetal movement. A qPCR test for MPXV was also positive in a transcutaneous amniocentesis specimen. Following delivery of the stillborn fetus at 21 weeks' gestation, an autopsy demonstrated classical cutaneous maculopapular lesions of monkeypox that diffusely involved the fetal extremities, head, trunk, abdomen, back, and chest; hydrops fetalis, hepatomegaly, and peritoneal effusions were also present. A qPCR test for MPXV was positive for multiple samples including fetal organs, skin lesions, sterile peritoneal fluid, and umbilical cord blood. The placenta had basal hemorrhages and tested positive for MPXV using qPCR and immunohistochemistry. These findings were all indicative of vertical transmission of the MPXV occurring as a consequence of transplacental infection.

Following the 2022 global outbreak of monkeypox infection, the risk for vertical transmission of this member of the orthopoxvirus genus has received increasing attention. Four potential mechanisms for vertical transmission of MPXV have recently been suggested by Dashraath et al,[4] including maternal viremia followed by infection of the placenta.

As the only recorded example of vertical MPXV transmission, we are continuing to perform additional investigations on this stillborn fetus and its placenta.[5] Immunohistochemistry was performed, which revealed diffuse and intense positive staining for viral antigen within the cytoplasm of stromal cells within the chorionic villi. These cells were morphologically consistent with Hofbauer cells, the native population of villous macrophages and were present in increased numbers. Positive immunohistochemistry results were also observed for the dermis of the stillborn fetus. These findings, together with those of Mbala et al,[3] have confirmed the presence of an intrauterine monkeypox virus infection of a fetus and its placenta through the mechanism of vertical maternal-fetal transmission. ■

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The authors report no conflict of interest.

Disclaimer: Opinions, interpretations, conclusions, and recommendations are those of the author and are not necessarily endorsed by the U.S. Army or Department of Defense.

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