A new outbreak of exanthematous disease occurred in Central-West region of Sao Paulo state. Daily cattle from a little and rustic farm, with 18 animals, started to present lesions in mammary gland and teats, that quickly disseminated between the herd. Milkers had clinical signals that included headache, lymphadenopathy, fever and ulcerated lesions on fingers and fists. Material as blood, milk and crusts were collected for laboratory diagnosis. Affected workers were sent to municipal health service for special care and collect of blood sample.

Extraction of genomic material of crusts were done using a Invitekâ comercial kit specific for DNA and for milk samples an in-home protocol specific for milk, based in fenol/chloroform. Polymerase chain reaction using hemagglutinin specific primers (EACP I and EACP II) of milk samples and crusts showed amplification signal. Fifteen samples of milk and four samples of crusts were tested. Among milk samples, thirteen were positive and for crusts three samples positive. Product was sent to genome sequencing and subsequent comparison with VACV isolates already identified in outbreaks in Brazil.

In virus neutralization test, thirteen among eighteen samples were positive. Human serum was negative in neutralization but positive in IgM - ELISA test. Thirteen among eighteen animals were positives in IgG - ELISA test.

Positivity in milk samples represents a high zoonotic risk for rural people, once not only milkers manipulated infected product but most of people that live in these little farms, including children and immunocompromised persons have the habit of drinking it without any pasteurization process. In the same region, two years before, a child presented mouth lesion during an outbreak in the ranch of his father, he didn't have contact with sick animals, but drank milk of these same animals without boiling. These results address the risk of milk from clinically VACV infected cows as a source of transmission to humans.