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| Holder pasteurization of donated human milk is effective in inactivating SARS-Cov-2. الاسم/ اسراء سمير عبد الفتاح عبد العزيز العناني |
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ABSTRACT Provision of pasteurized donor human milk would be sufficient to inacti vate severe acute respiratory syndrome SARS-CoV-2.

INTRODUCTION

Very few milk samples from woman positive for COVID-19 have been tested for SARS-CoV-2.

There are now at least 3 reports of the presence of SARS-CoV-2 nucleic acid in human milk , with more than 650 milk banks globally that rely on the holder method to ensure the safety of donor milk.

Although this technique is assumed to result in inactivation of SARS-CoV-2.

The virus causing severe acute respiratory syndrome ,SARS-CoV-2 , has been shown to be completely inactivated with temperatures as low as 56c for 5 minutes.

In the event that donated human milk contains SARS-CoV-2,this method of pasteurization renders milk safe for consumption and handling by care provides.

RELATED WORK

Pasteurization of human milk spiked with SARS-CoV-2using the Holder method resulted in completed viral inactivation ,as measured by TCIDg/ml.

A recent report by Chin and colleagues showed SARS-CoV-2 in virus transport media to be completely inactivated at 56c for 30 min or 70 c for 5 minutes.

METHODOLOGY

Given the complex carbohydrate ,lipid and immune factor content of human milk, we found undiluted human milk to cytotoxic to Vero E6 cells, even without SARS-Cov-2.

RESULTS

We detected no cytopathic activity in any of the SARS-Cov-2 spiked milk samples that had been pasteurized using the holder method(62.5C for 30min), even after the passaging of inoculum and subsequent observation for 14 days.