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**M-021-23 RAPID DETECTION OF NOROVIRUS IN NATURALLY CONTAMINATED FOOD:
FOODBORNE GASTROENTERITIS OUTBREAK ON A CRUISE SHIP IN BRAZIL,
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Autores: Morillo SG (Instituto Adolfo Lutz, São Paulo, SP) ; Luchs A (Instituto Adolfo Lutz, São Paulo, SP) ; Cilli A (Instituto Adolfo Lutz, São Paulo, SP) ; Timenetsky MCST (Instituto Adolfo Lutz, São Paulo, SP)

Resumo

Norovirus (NoV) is a prevalent pathogen of foodborne diseases; however its detection in foods other than shellfish is often time-consuming and unsuccessful. In 2010, an outbreak of acute gastroenteritis occurred on a cruise ship in Brazil, and NoV was the etiologic agent suspected. The objectives of this study were report that a handy in-house methodology was suitable for NoV detection in naturally contaminated food; and perform the molecular characterization of food strains. Food samples (blue cheese, Indian sauce, herbal butter, soup, and white sauce) were analyzed by ELISA, two methods of RNA extraction, TRIzol® and QIAamp®, following conventional RT-PCR. The qPCR was used in order to confirm the NoV genogroups. GI and GII NoV genogroups were identified by conventional RT-PCR after RNA extraction using the TRIzol® method. Two GII NoV samples were successfully sequenced, classified as GII.4; and displayed a genetic relationship with strains from Asia continent also isolated in 2010. GII and GI NoV were identified in distinct food matrices, suggesting that was not a common source of contamination. TRIzol® extraction followed by conventional RT-PCR was a suitable methodology in order to identify NoV in naturally contaminated food. Moreover, food samples could be processed within 8 hours, indicating the value of the method used for NoV detection, and its potential to identify foodborne gastroenteritis outbreaks in food products other than shellfish. This is the first description in Brazil of NoV detection in naturally contaminated food other than shellfish involved in a foodborne outbreak.