

AN OUTBREAK OF DIARRHEA IN MANDERA, KENYA DUE TO ESCHERICHIA COLI SEROGROUP O-UNTYPABLE STRAIN THAT HAD A CODING GENE FOR ENTEROAGGREGATIVE E. COLI HEAT- STABLE ENTEROTOXIN 1

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In an outbreak of gastroenteritis on 16 December 2009, in Mandera, Kenya, *Escherichia coli* O-untypable (OUT) strain was isolated from stool specimens of patients (18/24, 75%). The *E. coli* OUT organisms could not be assigned to any of the recognized diarrheagenic groups of *E. coli*. However, they possessed the EA_gEC heat-stable enterotoxin (EAST1) gene. The cell-free culture filtrate of EASTEC strain

isolated from the outbreak case induced a considerable amount of fluid accumulation (FA) in suckling mouse intestine, indicating production of an enterotoxin factor(s). These results identify EASTEC as the etiological agent of the diarrheal outbreak in Mandera. This is the first report, to our knowledge, demonstrating the diarrheagenicity of EASTEC by using an animal model. It is considered necessary to characterize the FA factor(s) and to study dissemination of the EASTEC strains producing the enterotoxin factor(s) to assess the public health significance of the strains distributed in the environment.

Biography

Yoshio Ichinose has been graduated with speciality including internal medicine and gynecology and obstetrician, and got a PhD degree, Postgraduate School of Medicine, Nagasaki University in 1985. He joined School of Medicine, University of the Ryukyus as an Assistant Professor afterwards served as a Lecturer at Institute of Tropical Medicine, Nagasaki University at 1994. In 2006 he started working as Professor at Institute of Tropical Medicine, Nagasaki University. Currently he is serving as Chief Representative of Kenya Research Station (NUITM-KEMRI Project).

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