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Isolation and Characterization of *Cronobacter sakazakii* in Powdered Infant Formula in the North Central States of Nigeria

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Cronobacter sakazakii is an emerging foodborne pathogen that has drawn attention to the scientific community in the last 50 years. *Cronobacter* spp. can cause illness in all age groups, but infants who are fed reconstituted powdered infant formula (PIF) are at higher risk. Immuno-compromised individuals are also gravely affected. The aim of the work was to establish the presence of *C. cronobacter* in PIF served to infants in North Central Nigeria. A total of 460 samples of powdered infant formula were collected from nursing mothers attending post natal hospital examination in the three of the North Central states of Nigeria (Nasarawa – 170; Abuja – 138; Kogi – 150). Two hundred and one (201) samples showed yellowish-white colouration when cultured in chromogenic *Cronobacter* broth. The samples were further sub-cultured onto a chromogenic *Cronobacter sakazakii* agar procured from Oxoid, UK and 63 were positive exhibiting yellowish cultures typical of *Cronobacter sakazakii* and were confirmed through biochemical tests. Further molecular characterization using specie specific PCR targeting *ompA* and *cpa* genes were carried out. Bands were observed for *ompA* gene on electrophoresis imager confirming the presence of *C. sakazakii*. The findings in this work established a new epidemiological evidence for the occurrence of *C. sakazakii* in PIF and this should be a strong indicator of potential risk to neonates. Adequate control measures should be introduced to reduce the risks of contamination.

Keywords: Isolation, Characterization, *C. sakazakii*, Powdered Infant Formular (PIF)

Biography:

Dr. Enem Simon Ikechukwu is an Associate Professor of Veterinary Public Health at the Department of Veterinary Public Health and Preventive Medicine of the University of Abuja, Nigeria. He served as the Head of the Department, Exam officer and Postgraduate coordinator. He is currently on Sabbatical at the University of Maiduguri, Nigeria. He has over 20 journal publications to his credit and has attended many conferences both locally and internationally. He has served as a reviewer to some journals. He has passion for research.