Correlation between Virulence Genes Profile of Currently Circulating E. Coli Pathotypes Isolated from Diarrheic Calves and Humans

Fatma Elzhraa Gamal1, Mohamed S Diab2, Fatma M Gadallah1, Nermin Awad3, Eman M Soliman1, Yasser El-Naker4 and Selim S Salama1*

Abstract:

Introduction: Diseases causing diarrhea are one of the major causes of deaths in low and middle income countries and responsible for high mortality rate in young calves resulting in economic losses. Several studies concluded to the high distribution of Escherichia coli (E. coli) strains in infectious calf diarrhea. STEC causes human gastrointestinal illnesses with diverse clinical spectra. So this study was planned for isolation, identification and molecular characterization of the currently circulating E-coli between calves and related workers in Egypt and to determine the role of virulence genes and pathotypes of E. coli in diarrhea in both calves and humans. Material and methods: A total of 161 Holsteins calves with varying ages in four different farms in Egypt were examined clinically for diarrhea as well as related human workers in these farms. 43 freshfecal samples were collected from diarrheic calves as well as 18 stool swab samples from workers then transferred to microbiological laboratory for bacteriological and molecular examination. Results: The prevalence rates of E. coli were 53% among diarrheic calf samples. The highest isolation rate was 40% among Group I (age

Keywords:

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