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Bovine *E.coli* subclinical mastitis in Egyptian delta

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A total of 350-quarter milk samples from apparently healthy lactating cows in Delta, Egypt between 2014-2015 were collected for detection of subclinical mastitic cows. Diagnosis of subclinical mastitis was performed by applying different diagnostic techniques as CMT, SCC, NAGase test. Bacteriological examination was performed for isolation of E.coli bacteria, which has been isolated and identified in 30.8% of samples. *E. coli* isolates were serologically identified and the results revealed 44 strains O: 111, 35 strains O: 128 and 7 strains are O: 157 and the rest of isolates were un-typable strains. To find out the correlation between virulence factors of *E. coli* strains and induction of subclinical mastitis one multiplex PCR was performed on *E. coli* isolates. Virulence genes, which were detected by PCR, were Stx1, Stx2, Sta, intimine and F41. Results showed that 30 strains have Stx1, 26 strains have Stx2, 25 strains have Sta gene, 7 strains have intimine gene, and 8 strains have F41 gene and 12 strains have no virulence gene of those genes. Hematological and biochemical examination were done on 88 whole blood and serum samples collected from examined cows. Results revealed that Shiga toxin-producing *E. coli* (STEC), which is potentially pathogenic for humans, was detected by PCR among isolates from cases of bovine subclinical mastitis, no correlation could be observed between studied virulence genes and the induction of subclinical mastitis and no correlation between subclinical coliform mastitis and hematological or biochemical changes in affected animas.

Biography

Mostafa El-Gaffary has completed his MVSc 2010 from Cairo University and his PhD from Cairo University Faculty of Veterinary Medicine. He is Lecturer and Director of Clinical pathology Lab in his Faculty; he was trainer for postgraduate student on biomedical application of nanotechnology, molecular biology and immunology at biotechnology center for research located in his Faculty 2007 – 2014.

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