

Detection of Classical Enterotoxins of *Staphylococcus aureus* from Raw Cow, Sheep, Goat and Camel Milk by ELISA Methods

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Background & Objectives: Enterotoxigenic *Staphylococcus aureus* is still an important cause of foodborne intoxications worldwide and milk and dairy products are frequently contaminated with extrotoxicogenic *Staphylococcus aureus*, which is often involved in Staphylococcal food poisoning. The aim of the present study was to investigate the presence of classical enterotoxins of *S. aureus* in raw cow, sheep, goat and camel milk that was produced in Fars province, Iran.

Methods: For this purpose, 84 milk samples including cow (n= 35), sheep (n= 20), goat (n= 21) and camel (n= 8) were collected from bulk milk tanks of 35 milking farm during three seasons of fall, winter, and spring and tested for staphylococcal enterotoxins (SEs) presence by Enzyme-linked immunosorbent assay (ELISA) Methods.

Results: Out of 84 samples studied, 12 samples (14.2%) were positive for at least one SE. Of these, 3 were positive for SEA, 2 for SED, 2 for SEC, 2 for SEA+SED, 1 for A+C and 2 for SED+SEC. None of the samples was positive for SEB and SEE. Statistical evaluation showed that there were not significant differences ($P>0.05$) between the presence of SEs of raw milk samples tested in fall, winter, and spring.

Conclusion: Further studies should be carried out to investigate the presence of these toxins in different foods and their roles in food poisoning.

Keywords: *Staphylococcus*; Enterotoxins; Milk

