

**Toxogenic *Staphylococcus aureus* in ready to eat foods in Sharkia
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Abstract:

The present study was carried out on one hundred and sixty samples of ready to eat meals were collected randomly from different restaurants and street vendors at Sharkia governorate, Egypt, at different sanitation levels. The collected samples represented by meat sandwiches samples (20 each of meat shawarma, grilled kofta, fried liver, beef burger and hawawshi sandwiches), chicken meat sandwiches (20 each of chicken shawarma, chicken pane and chicken burger sandwiches). The incidence of *Staphylococcus aureus* in meat sandwiches samples were 45%, 55%, 40%, 50% and 60% in meat shawarma, grilled kofta, beef burger, fried liver and hawawshi, respectively. the total mean count was 3.6131, 3.6127, 3.6127, 3.389 and 4.268 log₁₀ cfu/g, respectively. The incidence of *Staphylococcus aureus* in chicken meat sandwiches samples were 50%, 35% and 25% in chicken shawarma, chicken pane and chicken burger, respectively. The total mean count was 3.7077, 3.2601 and 2.6481 log₁₀ cfu/g. The multiplex PCR technique was used for detection of the toxin producing genes of *Staphylococcus aureus*. thirty obtained isolates of *Staphylococcus aureus* were examined for the presence of enterotoxins with specific primers for SEA, SEB, SEC, SED and SEE genes and the results revealed that 9 strains were toxin producing and the most detected enterotoxin gene in the examined strains was SEA (5 isolates), followed by SEC (3 isolates) and SED (3 isolates) and SEB (1 isolate), no strains carry SEE and 21 strains were negative for enterotoxin producing genes.

Key words: ready to eat meat, *Staphylococcus aureus*, the multiplex PCR