

# 2<sup>nd</sup> International Medical Sciences Congress (IMSC)

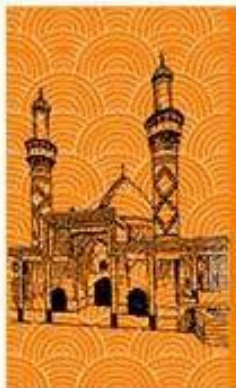
المؤتمر الدولي الطبي الثاني

البحث الطبي العلمي اساس التقدم

September 13<sup>th</sup>-14<sup>th</sup>, 2017

Kerbala - Iraq

<http://fb.com/nhhcfiq>



#### Head of Congress:

Prof. Dr. Riyadh  
Dhayhood Al-  
Zubaidi

#### Head of Scientific Committee:

Prof. Dr. Akram  
Fouad Al-Hakeim

#### Head of Coordination Committee:

Prof. Dr. Mousa  
Muhsin Al-Allaq

رئيس المؤتمر:

أ.م.د. رياض ضيبي  
الزبيدي

رئيس اللجنة العلمية:

أ.م.د. أكرم فؤاد الحكيم

رئيس اللجنة التحضيرية:

أ.م.د. موسى محسن العلاق

## A Study of Effect of Emulsifying Salts on *Staphylococcus aureus* Total Bacterial Count (TBC) in Cheese of Awassi ewes Milk

Rafid Samir Abdul-Karime Al-Zubaidy,\* Abdollah Jamshidi and Amir Salari

Department of Food Hygiene,  
Faculty of Veterinary Medicine,  
Ferdowsi University of Mashhad,  
Iran

**Objectives:** The study conducted to indicate the experimentally comparative measurements of multi-antibiotic resistant *Staphylococcus aureus* (MRSA) load and its enterotoxins with experimentally food poisoning and to investigate the effect of different types and concentrations of emulsifying salts (Na tripolyphosphat, 3Na citrate, Na carbonate) to choose the best mix of them that reduce the microbial load in locally produce cheese.

**Method:** Sixty samples of Cheese locally produced from milk of Awassi ewes were been collected randomly from Local Awassi Flock of College of Agriculture at Baghdad University, Iraq, (30 samples to each winter and spring season) to investigate their microbial load, as well as, studying the susceptibility of isolates to different selected antibiotics.

**Results:** Both winter and spring samples were in high significant ( $P < 0.01$ ) microbial count of *S. aureus*. The bacteristatic and bactericidal effect of emulsifying salts on microbial activity was confirmed when the total bacterial count (TBC) were high significant ( $P < 0.01$ ) reduce in cooked cheese with 2.5% emulsifying salts added. The *S. aureus* count in nutrient broth with 2% emulsifying salts added were high significant ( $P < 0.01$ ) reduction.

**Conclusion:** Emulsifying salts with 2–2.5% concentration has the best inhibition effect on *S. aureus* in locally produce cheese.

#### KEYWORDS

milk, cheese, *S. aureus*,  
emulsifying salts, Awassi ewes