

## **Dedication**

This thesis is dedicated to The Soul of Mom and Dad  
To my husband, my sisters, my brothers my friends  
to whom pushed me beyond the limits.

## **Acknowledgment**

First and foremost, my heartfelt thanks to Allah for giving me strength and will power to complete this task.

My appreciation and gratitude to my supervisor:

Professor **Mohammed Abdalislam Abdallah**, for the continuous supervision, guidance, suggestions, which led to completion of my MVSC, study.

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**Abstract**

Microbial contamination of beef meat can be influenced by many factors during slaughtering and handling . The current study was conducted to investigate bacteria encountered in contamination of beef meat in small butchers in Alhaj Yousif area.

However eighty swab samples were collected from meat, butcher's hands, surface (table+ cutting board) and knives.

Total viable count (TVC) of contaminating bacteria preformed beside isolation and identification of bacteria. The result revealed that was no statistically significant difference between the points ( $p \leq 0.05$ )

The highest contamination level was recorded on the butchers C was the meat  $5.27 \pm 0.05$  ., at the hands point also butcher C with highest mean  $5.32 \pm 0.03$ , at the surfaces point butcher B with  $5.31 \pm 0.05$  and at the knives point the butcher B with  $5.30 \pm 0.04$

The contaminating bacteria isolated were E. cloi and salmonella. High levels of microbial contamination can be carried out by bad handling and poor hygiene, but better facilities and processing units with better hygiene make beef meat have concern for suppliers ,consumers and public health officials.

### **المستخلص**

التلوث الميكروبي للحم الأبقار في المجازر الصغيرة يمكن أن يتأثر بالعديد من العوامل أثناء عملية الذبح والتجهيز. قد أجريت الدراسة الحالية للتقصي عن الجراثيم الملوثة التي يمكن العثور عليها على اللحوم المعروضة في المجازر الصغيرة بمنطقة الحاج يوسف. تم جمع ثمانين عينة مسحة من اللحوم 'أيدي الجزارين' (الترابيز+ لوح التقطيع والسكاكين). وقد تم حساب إجمالي العد الحي (TVC) من البكتريا الملوثة إلى جانب العزل لبكتريا الإيشريكية والسالمونيلا. وكشفت نتيجة الدراسة أنه ليس هناك إختلاف إحصائي (ع أصغر من أو يساوي 0.05) بين المواقع التي أخذت منها العينات وسجل أعلى مستوى للتلوث في الجزار C في اللحم  $\text{Log}_{10}\text{CFU}/\text{cm}^2 \pm 5.27$  , الجزار B في TVC 0.05 الجزار C أيضا في الأيادي  $\text{Log}_{10}\text{CFU}/\text{cm}^2 \text{TVC } 0.07 \pm 5.32$  , الجزار B في الترابيز+ لوح التقطيع  $\text{Log}_{10}\text{CFU}/\text{cm}^2 \text{TVC } 0.06 \pm 5.31$  وفي السكين+  $\pm 0.04$  .  $\text{Log}_{10}\text{CFU}/\text{cm}^2 \text{TVC } 5.30$  .

البكتريا الملوثة التي تم عزلها الإيشريكية والسالمونيلا.

المستوى العالي من التلوث الميكروبي كان بسبب. التعامل السيء للحوم وإهمال النظافة الشخصية وضعف اتباع الإرشادات الصحية ولكن تجويد مرافق المجازر ووحدات الذبح والمعالجة مع النظافة تجعل اللحوم ذات أهمية صحية للموردين والمستهلكين ومسؤولي الصحة العامة .

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