Study of carcass condemnation due to parasitic infection in Tehran province of Iran

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Abstract

Parasitic diseases in livestock is important in many commercial aspects, one of them is carcass and edible viscera condemnation. In 2006-2007 in Tehran province 3007427 livestock were slaughtered consist of sheep, goat, cow and camel which 2.93 percent of them were total condemned due to parasitic effects and also we found about 9 percent of total condemned carcass in slaughterhouses were rejected because of parasitic diseases. Most of totally condemned carcasses were sheep and the main parasitic agent in rejected sheep recognized sarcocyst. Also partial condemnation of liver and lung due to parasitic effect was studied; Dicrocoeliasis in sheep liver was the main factor for partial condemnation of edible viscera.

Introduction

Parasitic infection of carcass is caused by sarcocyst,cysticercus and hydatid cyst and parasitic infection of liver is caused by fasciola and dicricoelium. The infection is important in temperate countries and many studies have examinated .its significance and impact on the livestock industry (david, 2001, ploeger, 2002) Meat inspection is commonly perceived as the sanitary control of slaughter animals and meat. The aim of meat inspection is to provide safe and wholesome meat for human consumption. The responsibility for achieving this objective lies primarily with the relevant public health authorities who are represented by veterinarians and meat inspectors at the abattoir stage.

Material and methods

Data on all condemned at post mortem inspection were collected by observation. The information available included total number of animals slaughtered, year of slaughter, species, condemnation statistics and reasons for condemnation .Information was collected using a standard survey form.

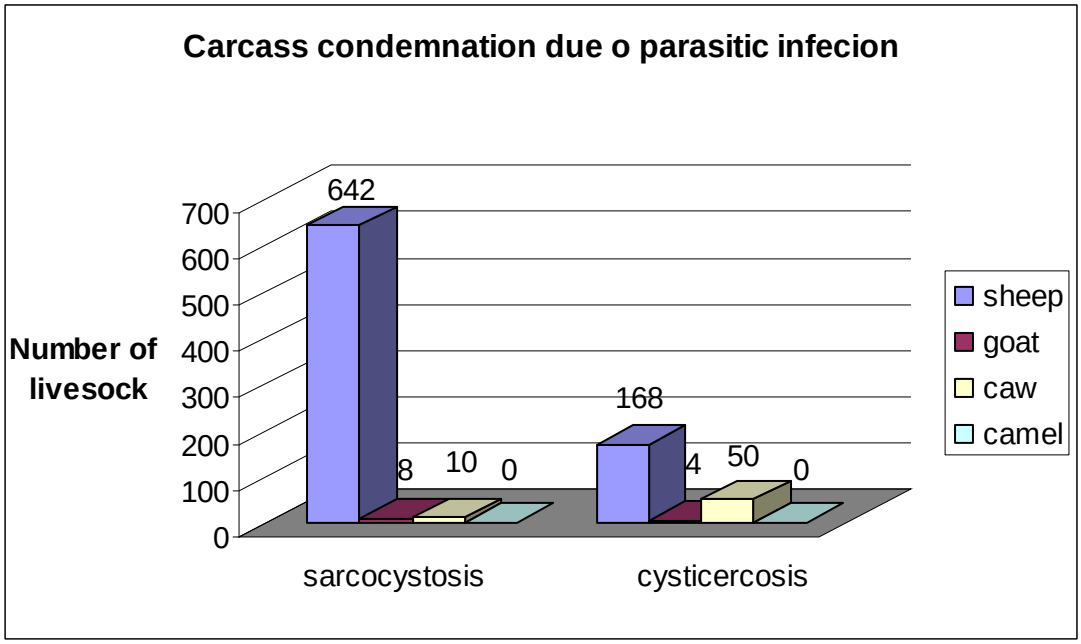
Data management and analysis: The data was managed and analyzed using SPSS ver.12 (SPSS).one way ANOVA was used to test the differences in means.

Results

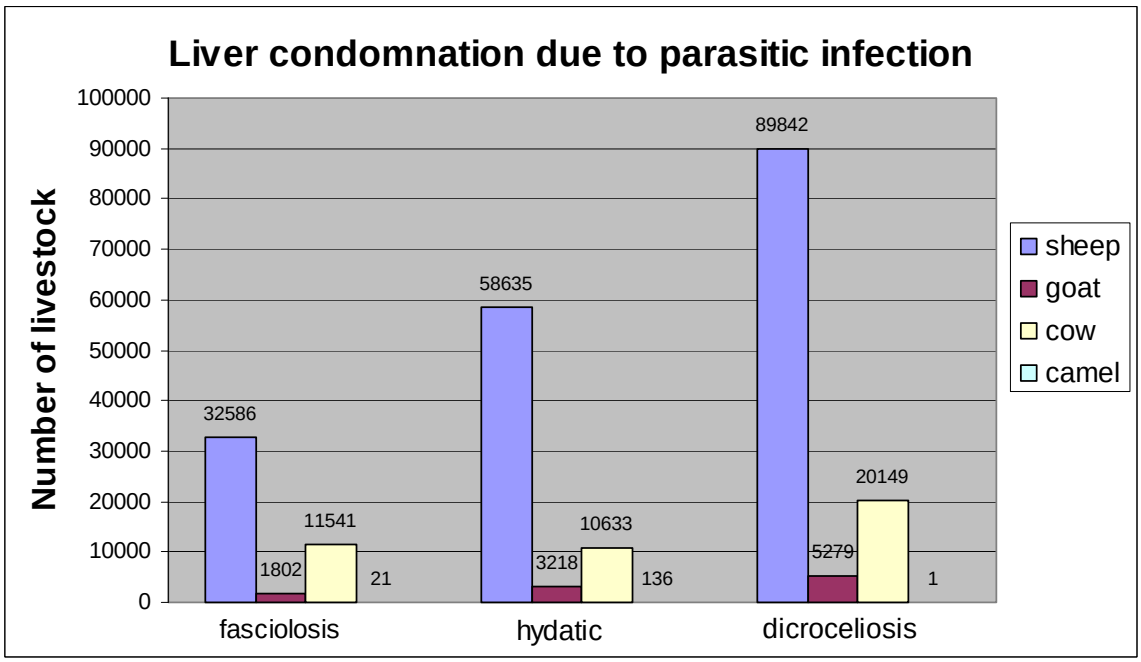
In 2006-2007 in Tehran province 3007427 livestock were slaughtered consist of sheep, goat, cow and camel which 2.93 percent of them were total condemned due to parasitic effects and also we found about 9 percent of total condemned carcass in slaughterhouses were rejected because of parasitic diseases.

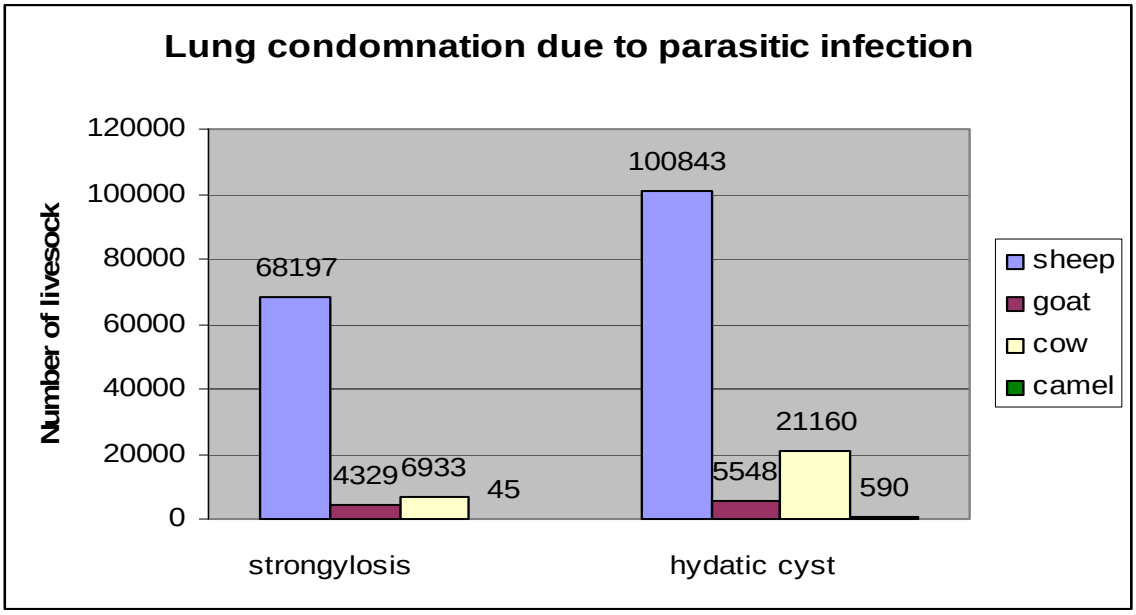
Most of totally condemned carcasses were sheep and the main parasitic agent in rejected sheep recognized sarcocyst.

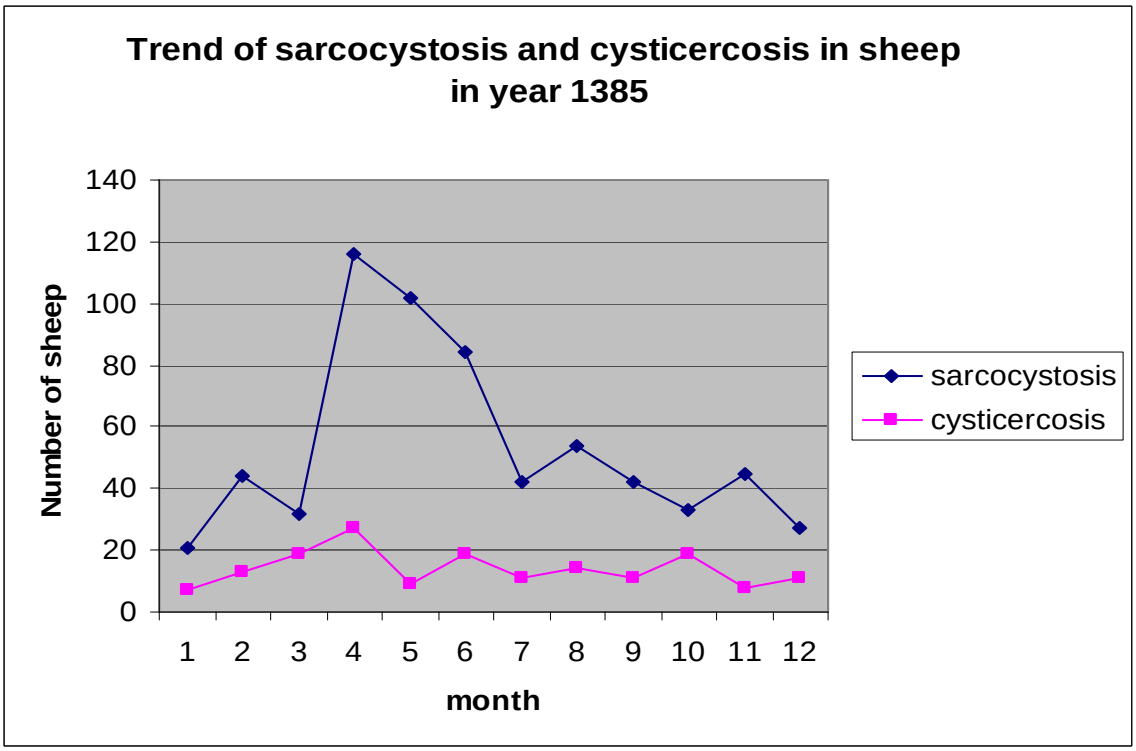
Also partial condemnation of liver and lung due to parasitic effect was studied; Dicrocoeliasis in sheep liver was the main factor for partial condemnation of edible viscera.

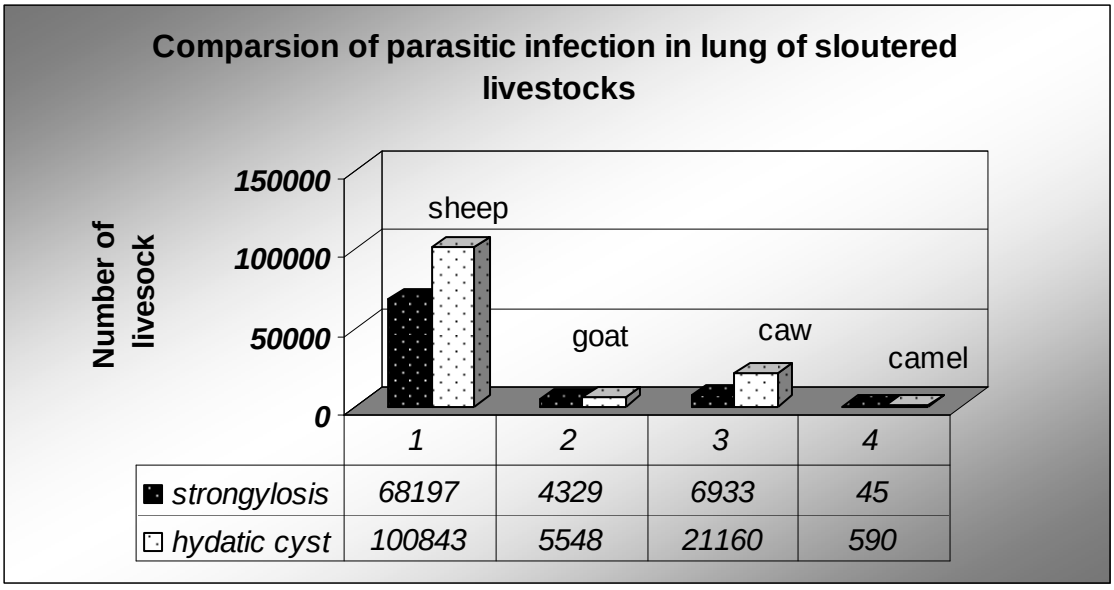


Carcass condemnation rate =(total musceles condemned/total number of animals slaughtered)100




Lung condomnation due to parasitic infection
Number of livesock
120000
100000
80000
60000
40000
20000
0
68197
4329
6933
45
100843
5548
21160
590
strongylosis
hydatic cyst
sheep
goat
cow
camel


Trend of sarcocystosis and cysticercosis in sheep in year 1385
Number of sheep
140
120
100
80
60
40
20
0
1
2
3
4
5
6
7
8
9
10
11
12
month
sarcocystosis
cysticercosis



Discussion

Livestock are considered a delicacy among local people in Iran and often served in eateries and restaurants. From 2006-2007 a major proportion of carcass that were condemned was due to parasites (sarcocyst). This finding is in agreement with the other researchers who found about our percent condemnation.

The prevalence of parasitic infection in the carcass based on the abattoir animal population was low. In this study parasitic carcass condemnation rate was higher in sheep than goat and other livestock animals. sarcocyst although it has been reported to occure in the high lands of tropical and sub tropical regions has been a disease known to occur commonly and wildly in sheep around the world. Partial condemnation of liver and lung due to parasitic effect was studied; Dicrocoeliasis in sheep liver was the main factor for partial condemnation of edible viscera.

The present study was based entirely on information that was recorded in the slaughter house recordes .In conclusion the data from this study suggests that parasites is prevalent at low percentage among sheep populations of Iran. Most of totally condemned carcasses were sheep and the main parasitic agent in rejected sheep recognized sarcocyst.

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