EPIDEMIOLOGICAL RETROSPECTIVE STUDY OF LIVER ABSCESSES IN SLAUGHTERED BRAZILIAN BEEF CATTLE RAISED IN FEEDLOT AND EXTENSIVE SYSTEM

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Introduction: Brazil has nowadays one of the largest beef cattle industries in the world. Most of the beef cattle are raised extensively, but the number of cattle kept in feedlots has increased 51.6% throughout the last decade reaching nowadays more than 3 million beef cattle yearly. Although feedlot improves productivity, this intensive feeding may enhances the incidence of some diseases, such as rumen acidosis, liver abscess, LAMENESS and pneumonia. Up to now there was no comprehensive and wide study about the frequency of liver abscess, especially comparing Brazilian beef cattle raised extensively and intensively.

Objective: Evaluation of the frequency of liver abscesses in Brazilian cattle according to feeding system, gender and state of origin.

Material and methods: A retrospective survey was carried out in cattle slaughtered in a private abattoir located in Lins municipality, State of São Paulo, Brazil. It was based on the reports of liver condemnation carried out by Federal Inspection Service among 1,568,821 cattle (85% steers; 15% cows and heifers) raised extensively (25.7 %) or in feedlots (74.3 %) in six Brazilian states (São Paulo, Mato Grosso do Sul, Paraná, Goiás, Minas Gerais and Mato Grosso) during 2002 to 2006.

Results and discussion: At this study 68,536 livers were condemned (4.3%) by telangiectasis (38.3%), liver abscesses (36.8%), perihepatitis (18.6%), congestion (3.1%), hidatidosis (1.6%), esteatosis (1.4%) and fasciolosis (0.2%). The frequency of liver abscesses were higher (P < 0.01) in feedlot cattle (2.54% vs 1.28 %) than those bred extensively, in cows and heifers (1.85%) than steers (1.56 %; P < 0.01). Feedlot and gender increased the risk of liver abscesses (odds ratio) by 2.01 and 1.19 times, respectively. The highest frequency of liver abscess was detected in feedlot cattle raised in the state of Parana (4.94%) while the lowest was detected in extensively bred cattle raised in the state of Mato Grosso (0.63%), respectively.

Conclusion: Our data indicate that Brazilian feedlot system caused less liver abscesses as this similar feeding system carried out in USA (12 to 32 % liver abscesses), probably because the average level of grain in the diet (50%) is not so high as in the USA (80 %), besides the shorter duration of the feedlot period (90 days - Brazil; 140 d in the USA).

Keywords: Bovine, feedlot, odds ratio, liver condemnation, telangiectasis