

IS THERE A DIFFERENCE BETWEEN ENERGY BALANCE OF CATS HOSPITALISED FOR SURGICAL OR FOR MEDICAL REASONS?

E Lhoest¹, S Claeys², A Gabriel³, J Detilleux⁴, M Balligand², L Istasse¹, M Diez¹. ¹Animal Nutrition Unit, Faculty of Veterinary Medicine, ULg, ²Small Animal Surgery Unit, Faculty of Veterinary Medicine, ULg, ³ Small Animal Medicine Unit, Faculty of Veterinary Medicine, ULg, Belgium, ⁴ Quantitative Genetic Unit, Faculty of Veterinary Medicine, ULg, Belgium.

During hospitalisation, most cats are thought to be in negative energy balance (NEB). NEB can induce hepatic lipidosis, increase morbidity, mortality and has the potential of undermining proper medical or surgical management of hospitalized cases.

The objectives of this study were to estimate percentage of cats in NEB and, to determine the reasons of NEB, to observe if there was a difference between medicine and surgery units. We included 75 cats (29 from medicine and 46 from surgery) hospitalised at the veterinary school of Lie`ge for at least 2 days from November 2003 to March 2004 and from November 2004 to March 2005 into equivalent conditions (same room and same medical staff). For each cat, breed, gender, age, disease, length of hospitalisation, body condition score (BCS)¹ on a 6-point scale and physical status score (PSS; from 15 normal patient to 55 moribund)² were recorded. Their energy requirement (ER) during hospitalization ER was calculated using the equation $BW \times 70 \text{ kcal}$ ³, multiplied by a factor (of 1.2 to 1.6) to derive the illness ER (IER). When 80% of IER was covered by spontaneous feeding or by nasoesophageal tube at day 2, patient was considered in positive energy balance. Correlation analyses were performed using the SAS system.

Domestic Shorthair cats represented 81% of patients and 57% were female in the 2 units. The average age was 6.2 years in medicine and 4.3 years in surgery. BCS averaged 3 in the 2 populations, and it was associated with gender (males were heavier) and correlated positively with age ($P < 0.05$). The cats had an equal average hospital stay of 5 days for the 2 units. A significant relationship between PSS (mean PSS 5 2.6 in medicine vs 1.6 in surgery) and unit ($P < 0.05$) was observed and was reflected by the mortality rate (10.3% in medicine and 4.3% in surgery). Energy balance was negative in 52% of cases without difference between medicine and surgery: 30% were due to lack of compliance with written feeding orders and 22% resulted from the cat refusing to eat any or all of the food offered. BCS was not a significant predictor of PSS. PSS was neither correlated with length of hospitalisation nor with NEB.

¹Scarlett et al, Internal Journal Obesity, 1994, 18, 22–28.

²Remillard et al, Veterinary Therapeutics, 2001, 2, 301–310.

³NRC, 1986.