

## NUTRITIONAL EVALUATION AND SUPPORT IN THE SURGERY UNIT : RETROSPECTIVE STUDY AT THE VETERINARY SCHOOL OF LIEGE

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The objectives of this study were to estimate the proportion of hospitalized canine patients in negative energy balance (NEB) and to determine why these dogs were in NEB. We included 75 dogs hospitalized in the Surgery Unit for more than 24 hours, from October to December 2003. All dogs were given a physical status score (PSS)<sup>1</sup> and a body condition score (BCS). Dogs were distributed in 2 groups for the surgery (orthopedics or soft tissue) and in 5 classes for body weight. Their energy requirements (ER) before, during, and after hospitalization were evaluated. During hospitalization, ER calculated using the following equation,  $132 \text{ kcal} \times \text{BW}^{0,75}$ , was multiplied by a factor (of 1.2 to 1.8) to derive the Illness ER (IER). When 80 % of IER was covered by enteral nutrition at day 2, it was considered as acceptable. Logistic regression analyses were performed using the SAS system.

The population comprised 39% intact and 7% neutered males, 33% intact and 21 % spayed females. Among these dogs, 44% suffered from orthopedic diseases. The average age was 5 years (range : 4.5 months-13 years); BCS averaged 5/9 (range: 1 to 8). Most of dogs (71%) had a PSS = 1. The dogs stayed on average 5 days (range: 2 to 40) in the hospital and only 3 dogs died. At outcome, 36% received a diet calculated by a nutritionist, whose 61% for obesity. Before hospitalization, the energy balance was negative in 19 % of the dogs and positive in 37%. Patients seen in orthopedics were mainly young large breed dogs with a good PSS, a high BCS and they were hospitalized for a short time. During hospitalization, 55% of dogs were in NEB, with no difference between dogs operated for orthopedic or soft tissue diseases. Anorexia and poorly written feeding orders represented respectively 42 and 56 % of the NEB cases. The hospitalization duration was positively correlated with age, PSS and energy intake. The PSS and the BCS were negatively correlated. PSS was positively correlated with IER. In orthopedic patients, IER estimation was of lesser concern, as these dogs had a good PSS and stayed in the unit for a short time. From the present survey, it appeared that the improvement of the nutritional support of orthopedics patients would decrease by 50% the dogs in NEB.

<sup>1</sup>Remillard RL , et al. Veterinary Therapeutics 2001, 2, 301-310.