

Body Condition Score Model for Dogs: A New Tool for Nutritional Assessment

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Abstract

Body condition score model for dogs has been developed to make more accurate BCS assessment. The BCS model has been shown to be more useful for communicating with dog owners than as a supporting tool for BCS assessment.

Description

The indoor breeding rate of dogs and cats is increasing in Japan in recent years and the pets are more exposed to the temptation of food by living indoors with their owners. In contrast, owing to the efforts of the pet food company, pet food is progressively becoming more appetizing and the pets yield to the temptation of the delicious food. Some owners also feed excessive food to their pets to satisfy its appetite, possibly leading to obesity.

Although the data on the obesity rate in dogs is insufficient, 30% or more of present-day dogs are estimated to be obese [1]. Generally, obesity must be assessed by the body fat percentage, however, its measurement is challenging. Consequently, clinical veterinarians use the Body Condition Score (BCS) for the assessment of the nutritional status of dogs and cats. The BCS method is recommended by the American Animal Hospitals Association and the World Small Animal Veterinary Association [2,3]. Since BCS assessment is a sensory evaluation which uses visual inspection and palpation, the results may differ depending on the assessor. Therefore, although the veterinarian informs the assessment results to the pet owners, the latter sometimes do not accept the assessment results. The treatment of obesity frequently interferes with this discrepancy. In such a background, we developed a BCS model for dogs. The model was prepared by laminating sponge rubber, rubber sheet, and fake fur on the artificial rib composed of resin, and adjusting the tactile sensation corresponding to each BCS score (Figures 1 and 2).



Figure 1: Photograph of commercialized BCS model; this model can be used to assess the nutritional status of dogs on a 5 point scale.

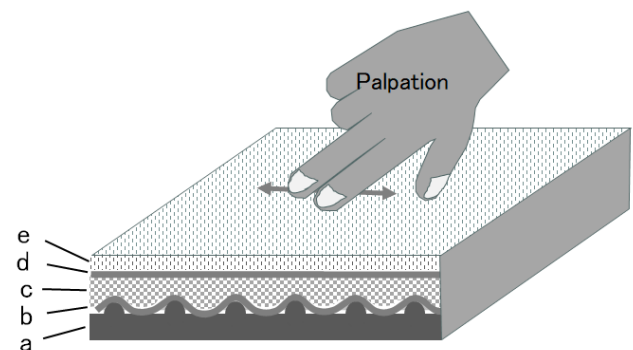


Figure 2: Cross section of BCS model, (a : Artificial Rib, b,d : Natural Rubber Sheet, c : Polychloroprene Sponge Sheet, e : Fake Fur Made of Bore).

The veterinary nursing students and clinical veterinarians used this model to assess BCS for dogs. Consequently, the variation in the BCS evaluation results became smaller than when it was evaluated without using the model [4].

Additionally, the veterinarians and dog owners assessed the BCS of dogs using the model and heard the impression through a questionnaire survey. The following are the summaries from both groups [5,6].

Summary of clinical veterinarian answers

Ninety-one percent of the veterinarians answered that the palpation feeling of the BCS model was identical or well-matched to the actual dogs.

Eighty-eight percent of veterinarians answered that the BCS model was helpful for BCS assessment.

Ninety-five percent of veterinarians answered that the BCS model was quite helpful for explaining the diagnosis results to the owners.

Ninety-six percent of veterinarians replied that the BCS model should be used in animal hospitals owing to its utility as a communication tool between pet owners.

Eighty-one percent of veterinarians perceived that the BCS model made it easier for pet owners to recommend weight loss programs.

Forty-three percent of veterinarians suggested that the success rate of the weight loss program would increase upon using the BCS model.

Seventy-nine percent of veterinarians answered that they would use the BCS model to explain the nutritional status or provide nutritional education to dog owners. Unexpectedly, few veterinarians answered that they would use it for staff education or as an aid in their self BCS assessment.

Summary of the dog owner's answers

Few dog owners knew about BCS since most veterinarians assessed the BCS and discussed the results with them.

Sixty-seven percent of the dog owners thought that they understood the nutritional status of their dog exceptionally or moderately well when they tried BCS assessment by using the model even at the first attempt.

Dog owners were interested in the BCS model, and assumed it would be useful for nutritional management.

Sixty percent of the dog owners were interested in consulting the clinic staff if their dogs were obese; however, 22% did not want to consult.

As a forementioned, the BCS model for dogs is a beneficial tool in animal hospitals. Its use is already widespread in Japanese animal hospitals and has been initiated in some other countries. We anticipate its forthcoming use in many animal clinics worldwide.

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