Doggy Boot Camp: Diet and Exercise Planning

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Abstract-

The purpose of this lecture is to highlight the importance of incorporating a proper diet and exercise into a weight loss plan. Diet calculation and low-impact activities will be highlighted.

Key Words: Obesity, body condition score, muscle condition score, diet, exercise

Obesity in pets is a serious, yet common health and welfare concern in the United States. It is estimated that between 35 and 53 percent of animals are overweight or obese. Obesity is defined as the accumulation of body fat that is excessive for the maintenance of ideal condition and health. Overweight patients are considered to be over their ideal body weight by ten percent. Obese patients are considered to be at least twenty percent over their ideal body weight.

The cause for obesity is often an imbalance in the ratio of calorie intake and expenditure. There are a number of risk factors that contribute to obesity. These risk factors include: over eating, a sedentary lifestyle, breed, sex, age, medications, and endocrine disorders. A sedentary life style decreases the number of calories that are expended, allowing the patient to gain weight over time. It is often more difficult to tell when a patient is overweight because of the gradual nature of the weight gain.

While individuals maintain weight differently, there are breeds that seem to be predisposed to obesity. Labrador retrievers and dachshunds tend to have more weight management difficulty then other breeds. As pets again, like in humans, weight gain often increases. Though the increase in weight usually begins around the age of two year, it can eventually plateau in middle

age. Females seem to be more predisposed to weight gain then their male counterparts, and altered pets are more predisposed to weight gain then intact pets.

Endocrine disorders such as hypothyroidism and Cushing's disease are common medical conditions that cause animals to gain weight. Patients should be screened for these disorders so appropriate treatment can occur if needed. Often times patients are being administered medications for health concerns that can also cause weight gain. Patients receiving corticosteroids or phenobarbital often gain weight as a side effect.

There are many complications caused by obesity. The increased pressure on the joints of obese patients can contribute to the intensity of osteoarthritis and the pain and inflammation associated with the disease. A patient that is painful is less likely to exercise leading to a sedentary lifestyle and even exercise and heat intolerance. With decreased exercise, a decline in respiratory and cardiovascular health is expected. As in humans, patients can develop diabetes requiring special medications and a general decline in overall immune function. With these complications a decrease in the patient's life expectancy is seen.

To avoid the detrimental side effects of weight gain and obesity, preventing the occurrence in key. Client education and open communication is vital to the success of a weight management plan. It is prudent to being communicating with the clients about the changing needs of their pet at the time the patient is neutered and revisit the topic during annual health checks. Informing a client that a pet with a consistently healthy weight increases life expectancy is often the reminder a client needs.

When a patient is needing to lose weight it is important to set realistic goals. By losing weight incrementally, there is a better chance of owner compliance and a successful weight loss without rebound weight gain. Diet alone can improve the mobility of a patient, but when diet and exercise are combined the results are not only the desired weight loss but also the maintenance of lean muscle mass and strengthening.

The initial evaluation of a patient for a weight loss program is an essential tool in developing a plan. A physical exam and lab work can establish if there are pre-existing conditions that need to be addressed before starting a program or should be considered during the program. The current weight, body condition score, and muscle condition score provide baseline information that allows progress to be monitored. During the initial evaluation it is helpful to also record physical measurements of girth of the neck, chest, and waist. The current diet, feeding habits, and caloric intake can all be recorded to monitor owner compliance in the program.

The patient's current weight is a specific and objective measure to monitor throughout the weight loss program. The body condition score (BCS) is a subjective measure to monitor the overall body condition of the patient. There are two scales that are used, the five point scale and the nine point scale. The muscle condition score (MCS) is also a subjective scale that is useful in monitoring the patient's muscle mass. It is often difficult to distinguish grades of muscle mass in severely obese patients, but the maintenance or increase in muscle mass is needed.

When discussing the current feeding information, the name, brand, and type of food being fed is important. This information should include the treats that are given throughout the day. The amount of food being fed is important. This allows the caloric intake to be measured and adjusted. The specifics of the feeding routine, such as the individual feeding meals, others that may feed the patient, and access to other pet's food should all be considered and addressed during the development of the weight loss plan.

When developing a weight loss plan the plan should be individualized to accommodate the needs of the patient and the owners. Identifying an ideal body weight and the diet that will be ensure the patient receives the appropriate nutrients is important. It is not recommended to use diets labeled as maintenance for weight loss because of the nutrient balance. Diets labeled for weight loss are formulated to provide complete nutrition while allowing the patient to lose weight. Veterinary therapeutic weight loss diets are recommended if the patient is needing to lose twenty percent or more of its current body weight or if the patient suffers from pre-existing conditions.

The ideal body weight is used to calculate the number of calories the patient should be provided during the day. When calculating the diet be sure to include the calories in treats and the treats used during medication administration. The calories used by treats should be no more than ten percent of the daily calories. Once the calories have been calculated, divide them into the number of meals the patient will receive a day, typically two.

The diet plan will consist of the amount of food that will be fed during each meal and a primary care giver can be assigned. By having one person assigned to feeding the patient at home, it limits the chances a patient will be fed too many times and makes the household more aware of the number of treats that are being given throughout the day.

There are many benefits to incorporating physical rehabilitation and exercise into a weight loss program. By completing exercises the patient is able to expend more calories while improving

endurance and cardiovascular health. The exercises also aid in maintaining or increasing muscle mass.

Owners are typically asked to take their pets on leash walks two to three times a day for ten to fifteen minutes and gradually increase the time and speed of their walks. This allow for the patient to build endurance without too much soreness. In addition to leash walks, several low-impact exercises, such as ramps, stairs, hurdles, and weave poles, can be added to the exercise program to encourage muscle building and weight loss.

In addition to at home exercise programs, the use of physical rehabilitation sessions can provide the opportunity to incorporate underwater treadmill and land treadmill into an exercise program. The underwater treadmill and land treadmill provide additional muscle strengthening and endurance training.

Throughout the course of a weight loss program a schedule of rechecks should be made. It is important to monitor body weight, body condition, and muscle condition regularly. The rechecks are typically completed every two weeks. At this time the measurements of the neck, chest, and waist should also be taken. By having regular monitoring appointments the care team is able to address any troubles the owners are experiencing and monitor for compliance. It is important to remember that one percent weight loss per week is safe. These appointments also allow for adjustments to be made to the diet and the exercise plan as needed.

Sometimes the clients will experience some difficulties with the weight loss plan. Patients sometimes beg for food. If this is the case increasing the fiber intake may be warranted or even trying the use of an auto-feeder. Weight loss can plateau like in humans, if this happens the daily exercise may need to be increased or adjusted.

Though obesity is a prevalent medical condition, not only is it preventable but with modifications to the diet and lifestyle the patient can return to a healthy weight. It is important to remember that weight gain did not occur over night and it will take time to see results. Incorporating exercise into a weight loss plan is beneficial in many ways and can increase a patient's life expectancy.

Following the general information, a case study will be presented. The case is that of an obese female, spayed Dachshund that presented for enrollment in a weight loss program. The case will discuss the initial evaluation of the patient, diet, exercise, and the eventual outcome of the weight loss program.

Following the case study there will be time for questions.

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