Pathologies and risks associated with canine obesity

Final Degree Project - June 2021

Susana Olazar Cimiano

UAB
Universitat Autònoma
de Barcelona

FACULTAT DE
VETERINÀRIA

Introduction

Obesity is defined as an accumulation of excessive amounts of adipose tissue in the body.

It is the most prevalent nutritional disorder of pets in developed countries.

It has been associated in humans to multiple diseases.

Objective

To evaluate the pathologies and health risks associated with obesity in the dog through a systematic review.

Materials and methods

- Review of the studies published between january 2005 and march 2021
- PubMed database
- Search words: canine, obesity, disease
- Levels of evidence classification from Oxford evidence-based medicine

Results

- Osteoarthitis, cranial cruciate ligament rupture
- Tachycardia, hypertension left ventricular hypertrofia
- Renal disease
- Tachypnea, ↓tidal volume, ↓PaO_2, BAS, tracheal collapse
- Heatstroke

- Increased risk during anesthesia
- ↑ triglycerides, insulin, cholesterol, ALT, ALP
- Mammary tumors, transitional cell carcinoma
- Decrease in quality and life expectancy
- Behavioral problems

Abbreviations

- PaO_2: partial pressure of oxygen
- BAS: brachycephalic airway syndrome
- ALT: alanine aminotransferase
- ALP: alkaline phosphatase

Conclusions

Obesity harms the health of dogs by increasing the risk of orthopedic, cardiovascular, renal, respiratory, neoplastic and behavioral problems. It also increases anesthetic risk, produces analytical alterations and decreases quality and life expectancy. However, many of these problems are reversible with weight loss.

That is why it should be recommended to decrease weight in obese or overweight dogs and prevent weight gain in animals with ideal body condition.