Computed tomographic features of the normal spleen in rabbits.

COMPUTED TOMOGRAPHY FEATURES OF THE NORMAL SPLEEN IN RABBITS (ORYCTOLAGUS CUNICULUS DOMESTICUS)

Purpose:

Computed tomography (CT) is commonly used to investigate abdominal disorders in the rabbit. The authors have identified cases with pathologic splenomegaly, but there is no CT study providing normal reference values for the rabbit spleen. Aims of this retrospective study were to document the visibility, size and shape of the normal rabbit spleen and potential correlations with signalment.

Methods:

Institutional imaging archives were reviewed for diagnostic-image-quality abdominal CT studies of rabbits. Medical records of identified cases were reviewed and all cases excluded with pathology that could influence the spleen. Conscious abdominal CT studies were reviewed for pre- and post-contrast visibility of the spleen (not visible/suspected/confidently visible), volume, shape and length. Linear regression analysis was used to investigate the relationship between splenic volume, sex, age and body weight.

Results:

In 116 cases the inclusion criteria were met. On pre-contrast images, the spleen was not visible in 15/116, suspected in 60/116 and was confidently identified in 41/116 cases. On post-contrast images, the spleen was not visible in 1/116, suspected in 16/116 and was confidently identified in 99/116 cases. There was a significant positive relationship between splenic volume and body weight but not age or sex.

Discussion:

The rabbit spleen can be more reliably identified on post-contrast CT images, which underlines the usefulness of contrast-enhanced CT. Body weight should be taken into consideration when differentiating between normal splenic size and splenomegaly. Further studies are required to establish CT features of splenic abnormalities in the rabbit.