

## Ultrasonographic Measurement of the Tracheal Diameter in Dogs with a Normal and Collapsed Trachea

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**Introduction:** The purpose of this study was that to measure the tracheal diameter according the tracheal shape in dog with a normal and collapsed trachea, to compare the results and to investigate the usefulness of the ultrasonography in diagnosis of the tracheal collapse.

**Materials and methods:** For the study of the measurement of the tracheal diameter, a total of 77 dogs with tracheal collapse and 40 dogs with the normal trachea were included in this study. The dogs were classified into two groups, with the normal trachea and collapsed trachea according to survey radiographs, historical datas and clinical signs. For the ultrasonographic examination each dog was in dorsal recumbency with their head and neck was in neutral position and tracheal diameter was measured.

**Results:** In normal trachea group, the diameter of the thoracic inlet was decreased compared with that of tracheal inlet. However, in collapsed trachea group, the diameter of the thoracic inlet was significantly increased. It was in this study also identified that the shape of the normal trachea was seen round shape and collapsed trachea was seen oval-to flattening shape.

**Clinical relevance:** This study shows that ultrasonographic measurement of the tracheal diameter in collapsed trachea with identification of the shape the trachea is useful in diagnosis of the tracheal collapse.

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