FRONTOSAGITTAL INDEX, VERTEBRAL INDEX AND VERTICAL DIAMETER OF THORAX IN MONGREL DOGS

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ABSTRACT

Thoracic malformations in dogs induce exercise-intolerance and reduce their racing and hunting capabilities due to respiratory distress. These deformities can be corrected by surgical intervention. Frontosagittal index (FSI) and vertebral index (VI) of the chest are crucial for diagnosis and surgical correction of these anomalies. These indices are not available for the Mongrel dogs. In this paper, the normal radiographic anatomy of the thoracic cage and the thorax indices were evaluated in 12 Mongrel dogs of either sex of younger (6-10 weeks) and older (16-20 weeks) age groups by using dorsoventral and lateral projections. The frontosagittal Index (FSI) was 1.34±0.02 with values ranging between 1.23 and 1.48. The vertebral index (VI) was 7.32±0.15 with values ranging between 6.46 and 8.30. The vertical diameter (VD) of the thorax was 8.15±0.48 cm ranging between 6.0 and 11.5 cm. The age and sex of the dog had significant (P≤0.05) effects on FSI, but not on VI. The FSI was higher in females and in younger puppies. Age had a significant effect (P≤0.05) on the VD of the thorax. Older dogs had higher VD than the younger ones. This study implied that the age dependence of FSI and VD were the key factors for consideration, while evaluating the radiographic chest anatomy of dogs either for diagnostic purposes or for quantitative assessment of the degree of surgical correction of thoracic cage abnormalities.

KEY WORDS

Frontosagittal index, Dog, Mongrel, Vertebral index, Vertical diameter

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