

SITUS INVERSUS TOTALIS IN A DOG

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Abstract

Situs inversus totalis is a congenital malformation represented by a complete transposition of the thoracic and abdominal organs. In humans, the prevalence is reported to be 1 in 8.000 - 10.000 people. This anomaly is also reported to be very rare in dogs.

A 4 months old mixed breed 10 kg female dog was referred to the Cardiology Service of the Veterinary Teaching Hospital of Iași for a complete cardiological examination after a severe episode of bronchopneumonia which was treated in a private clinic. During presentation the dog was alert, with a normal body condition score and no evidence of any cardiological symptoms. The cardiac beat was palpable on the right hemithorax. Electrocardiography revealed a sinus respiratory arrhythmia, with a HR of 140 bpm. The mean electrical axis was 105° and the P-wave was negative in lead I as well as the QRS complexes in CV6LL and CV6LU chest leads. The mean blood pressure (S/D) was 104/50. Echocardiography revealed the left atrium, ventricle and aorta in the near field when performed from the right parasternal four and five chambers long axis views. No other congenital defects of the heart were found. A ventro-dorsal radiography of the thorax and abdomen was performed after 10 ml of barium sulphate was orally administered. Radiography revealed complete transposition of the heart and abdominal organs confirming the diagnosis of situs inversus totalis.

Based on these findings, associated with the severe bronchopneumonia episode, it is very likely that the dog suffered of the triad situs inversus totalis, bronchiectasis and rhinosinusitis known and Siewert-Kartagener's syndrome. Situs inversus totalis, if developed alone, does not induce changes, however it is imperious to be aware of it when performing any types of surgery.

Key words: dog, organ transposition, Kartagener's syndrome;