

Tricuspid Valve Dysplasia in English Bull Dog Breed: About a Case

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Summary

The development of a clinical case of a canine breed Bulldog ingles, 3.5 months old male having difficulty breathing, impaired physical activity as well as an abdominal protuberance described. To a breath chest auscultation with an intensity of 6/6, arrhythmias and death rattles perceived. A radiographic study was conducted as an adjunct to physical examination, by which, generalized cardiomegaly, dorsal displacement of the trachea, lung radiopacity with alveolar pattern is observed, plus an echocardiogram in which ventricular septal defect was observed, volume overload, artery dilated pulmonary among other hallazgos and an electrocardiogram which is interpreted during disease management, advanced deterioration of the patient's health is evident, the cuale death occurred.

Keywords: English bulldog; Tricuspid valve dysplasia; Additional tests

Introduction

Congenital heart diseases are considered those that appear at the time of birth, can be inherited (and therefore communicable) and acquired (non-communicable). However, heart disease can be inherited and not inherited, i.e., it is only potential in almomento birth and its consequences for later development.

The literature data indicate that the incidence of cardiac malformations and large glasses of congenital type in the dog is 68% of the clinical population, matching different authors that the highest percentages (84%) correspond to the ductus arteriosus persistent pulmonary stenosis and stenosis, the rest of the defects (persistent right aortic arch, ventricular septal defect, Tetralogy of Fallot, atrial septal defect, atrioventricular valve malformation, etc.) represent a small percentage.

Valvular defects diagnosed before one year of life. Animals suffering from this disease often associated other congenital heart defects [1].

Tricuspid dysplasia is a congenital malformation of the tricuspid valve apparatus. It is rare in dogs and cats. In dogs it has shown a predisposition in Labrador. This heart defect is associated with regurgitation by a chordal too short, malformed valves or altered papillary muscles.

Detweiler and Patterson studies showed lesions in the mitral valve in 61.5% of cases, lesions Tricuspid 22.6% and only 2.9% of aortic lesions. The explanation for the prevalence of these lesions in the left heart with regard to the right may be related to the lower valve distortion in the right heart, the camera works with low pressure, unlike what happens in the left ventricle and degeneration tricuspid not

produce the same clinical significance [2]. Most affected dogs with tricuspid dysplasia are big dogs purebred race. In a study of 10 years, most dogs diagnosed with this anomaly were purebred and 25.8% were farmers [3].

The review of the animal and medical history, along with a thorough physical examination, electrocardiogram, chest x-rays and laboratory tests orient the diagnosis of a particular anomaly. It is considered that to make an accurate diagnosis (may be more than a defect in the same animal) requires the use of echocardiography (two-dimensional, M-mode and Doppler) and allows detection of almost all congenital heart diseases.

Clinical case

For a bulldog breed male patient English 3.5 months, which was referred to the Veterinary Medical Center, during the history clinic owner says he had a lump in the abdomen, difficulty breathing exposed not tolerate physical activity and only he lays down the left side. It was performed to general physical examination which showed the following data presented in Table 1.

Weight	7kg
Lymph consistency and size	normal
Capillary refill time	2 Seconds
Body temperature	38°C
heart rate	187 lpm
respiratory rate (dyspnea)	24 rpm
Cough reflex	negative
abdominal palpation	Normal
% Dehydration	normal hydration

It also presents dyspnea, auscultation a breath of 6/6, arrhythmias and rattling was heard. During an umbilical hernia abdominal palpation approximately 4 cm it is detected.

Later imaging studies thoracic cavity were performed to evaluate heart, lungs and structures that are housed in chest cavity itself to rule out diaphragmatic hernia since the truck test was positive. The diagnosis of radiographs were cardiomegaly with increased cardio-sternal and contact cardio-diaphragmatic measurement of the heart is performed by the method of Buchanan’s having a size of 15.5 vertebral bodies, dorsal displacement of the trachea, lungs show an increase presence of radiopacity greater degree alveologramas level of perihilar region.

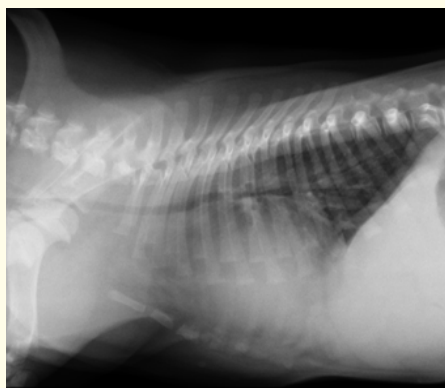


Figure 1: *Latero lateral projection dorsal trachea, cardiomegaly cardioesternal contact and cardiodiafragmatico was observa desplazamiento.*

Latero lateral projection cardiodiafragmatico dorsal displacement of the trachea, cardiomegaly cardio external contact is observed.

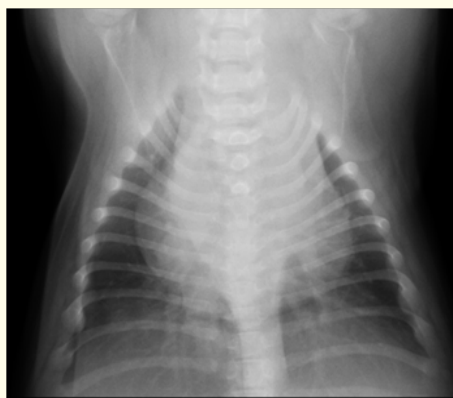


Figure 2: Dorsal-ventral projection increased head mediastinum decreasing distance costal generalized cardio-cardiac dilation observed.

Dorsal-ventral projection increased head mediastinum decreasing distance costal generalized cardio-cardiac dilation observed. In the echocardiographic study with multi frequency probe, the findings described below are shown: MODE B.

Real through time and right parasternal longitudinal and transverse izquierdaen can be seen: Communication interventricular septal defect ventricular proximal to the aortic valve Volume overload of the left ventricular chamber. The mitral valve has enlarged its septal leaflet prolapse 0.67 cm with atrial direction. The chordae of the left ventricle presents hyperechogenicity and show change in placement. The pulmonary artery is dilated corresponding to twice the aorta. The right ventricle least half the size by tilting the septum is reduced during systole.

The doppler color on the right parasternal out flow of the left ventricle shows communication from left to right through the ventricular septal defect below the tricuspid valve. There mosaic image at the level of the pulmonary artery in both right and left branches. Ultra-sound findings were perimembranous septal defect, patent foramen ovale and communication aortic pulmonary arterio venous window.

In the study electrocardiographic low voltage complexes in all derivatives with motion artifacts in the CVP derived a VF observoun in the sixth cardiac cycle is observed. Because iso electric QRS complex presents is not possible to determine the mean electrical axis. Postmortem findings in the right volume overload, ventricular septal defect, thickening of the heart muscle, the valves defect was found.



Figure 3: Right Ventricle size Increase.



Figure 4: *Communication interventricular.*

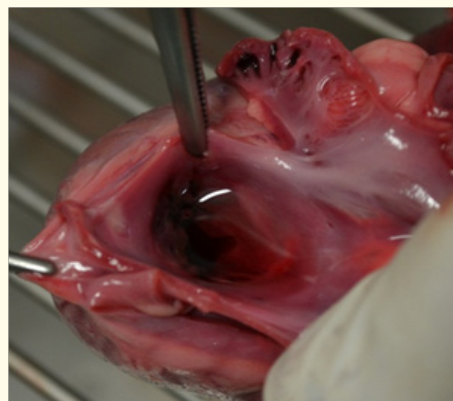
Discussion

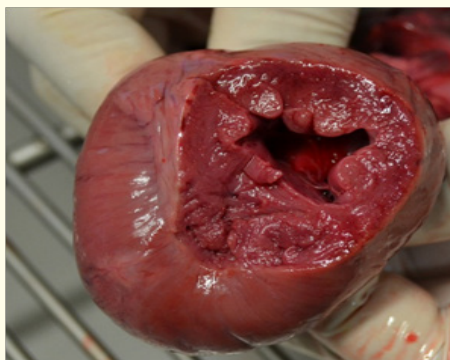
Some studies indicate that the incidence of congenital cardiac malformations is 0.68% of the canine population. However the prevalence of valvular problems is minimal unlike most common diseases such as aortic stenosis, pulmonary, ductus arteriosus among others. Most authors cite tricuspid valve dysplasia is a malformation less common however montolla and Ochoa describe this disease becomes common in elderly and Labrador breed dogs. The congenital malformation of the tricuspid valve is characterized by multiple lesions (abnormal leaflet chordae tendineae and papillary muscles and defect) due to valvular insufficiency.

Conclusion

Different autores mencionan the tricuspid valve dysplasia is an uncommon congenital malformation in dogs bulldog breed. [4] mentions that congenital heart disease may be accompanied by more anomalies. In this clinical case of tricuspid valve present displasia along with other problems.

To focus on a correct diagnosis about cardiovascular disease conducting further tests as in this case we help ourselves (Order) electrocardiograms, ultrasounds and echocardiograms radiographic plates along with clinical history and physical examination is necessary. Once getting the resultados diagnostico studies to opt for drug treatment but the patient dies before giving such treatment therapies authors note that heart defects are rare because most puppies that have die within the first few weeks of life for congestive heart failure.





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