

# Comparative Evaluation of The Effect of Two drug combinations of Torsemide-Enalapril-Digoxin and Furosemide-Enalapril-Digoxin on Echocardiographic Findings of Treated Dogs

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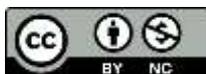
## Abstract

The aim of this study was to compare the effects of Two drug combinations of Torsemide-Enalapril-Digoxin and Furosemide-Enalapril-Digoxin on the cardiovascular system in the treated dogs. For this purpose, five 1.5-year-old mixed breed dogs were selected to undergo echocardiography at three times (The first time as the control group, the second time as the first group and the third time as the second group). No drugs were used in the control group. In the first group, 2.5 mg/kg of furosemide, 0.5 mg/kg of enalapril and 3 µg/kg of digoxin and in the second group, 0.3 mg/kg of Torsemide, 0.5 mg/kg of enalapril and 3 µg/kg of digoxin were administered orally. Echocardiography of the dogs was done after one hour of drug administration. Measured echocardiographic parameters included: Left ventricular size during systole, left ventricular size during diastole, heart rate and fractional shortening. The results of each group were evaluated using chi square analysis method. The results of this study showed that changes in heart rate and left the ventricular size changes during diastole were not significant between the control and other groups. Although left ventricular size during systole was significantly lower in the torsemide-enalapril-digoxin group than the other groups, in this study, it was found that the fractional shortening changes in the group receiving torsemide-enalapril-digoxin were significantly higher than the other two groups. The results of this study indicate better effects of torsemide than furosemide in improving heart function and increasing short fractional shortening, but both drugs have similar effects on other cardiac parameters.

**Key words:** Dogs, Digoxin, Echocardiography, Enalapril, Furosemide, Torsemide

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