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Effect of Low Level Laser on Healing of Congenital Septal Defects on Dogs

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Abstract : Background and purpose: After the success of the first trials of this experiment which were done on rabbits, a new study were conducted on dogs to ensure the past results; in a step forward to use low-level LASER therapy in the treatment of congenital septal defects in infants. The aim of this study was to investigate the effect of low-level LASER irradiation on congenital septal defects in dogs. Subjects and Methodology: six male dogs who have congenital septal defects in their hearts with age ranged 6-10 months- enrolled in this study for one and half months. They were assigned into two groups: Group (A): The study group consisted of 3 canine hearts who received routine animal care associated with LASER irradiation. Group (B): The control group consisted of 3 canine hearts who received only routine animal care. Sizes of the septal defects were measured for both groups at the beginning and after the end of the study. Results: There was a significant decrease in the size of the diameter of the congenital septal defect with the study group (percentage of improvement was 42.19%) when compared with control group. Conclusion: It was concluded that low-level LASER therapy can be considered as a promising therapy for congenital heart defects in animals and to be examined on children with similar congenital lesions after then.

Keywords: laser, congenital septal defects, dogs, infants

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