

Evaluation of the omentum as stem cell donor in the ischemic myocardium using immunohistochemical analysis of CD34

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Abstract

Objective: To evaluate the efficacy of omentopexy as stem cell donor, on previously infarcted myocardium, using immunohistochemically analysis with CD34. Methods: Myocardial infarction was generated in four pigs, by ligation of the 1st and 2nd marginal branches of the circumflex artery. In three animals, careful abrasion of the infarcted epicardium was performed followed by multiple myocardial perforations and the mobilization of the omentum from the abdominal cavity to the mediastinum, involving the infarcted area and perforations. In the fourth animal, omentopexy was not performed and only the abrasion and perforation of the infarcted area were performed. All hearts were removed for CD34 immunohistochemically evaluation. RESULTS: Four samples from different sites of each animal, totaling 16 histopathological samples were evaluated. All samples were immunolabelled for CD-34. After omentopexy, in 40% of the samples there was a 60% increase in CD34 immunohistochemical marking, and in the control animal, only minimal marking was observed. CONCLUSION: Omentopexy proved to be effective in continuously seeding previously infarcted myocardium with stem cells, seen through immunohistochemistry, using CD34 marker.

Speaker Publications:

- 1."Plexiform Lesions in an Experimental Model of Monocrotalin-Induced Pulmonary Arterial Hypertension."
2. "IS SUPERFICIAL COLORECTAL LESIONS WITH LOW AND HIGH GRADES INTRAEPITHELIAL NEOPLASMS MORE PREVALENT IN OLDER ABOVE 65 YEARS?"
3. "Fixation of the Anterior Ligament Graft at the Tibial Pole: Biomechanical Analysis of Three Methods."
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Biography:

Luiz Fernando Kubrusly is an established and highly skilled surgeon with over 30 years of experience in cardiothoracic and vascular surgery. He obtained his Medical Degree at Evangelical College of Paraná and completed his PhD at the age of 25 years from Federal Universidade of Paraná. His residency was at Texas Heart Institute - TX. He is the director of Curitiba Heart Institute and Denton Cooley Insitute. He has published more than 45 papers in reputed journals and has been serving as an editorial board member of Brazilian Journal of Cardiovascular Surgery.