

Abstract No. **59**

Category: **Acute Coronary Syndromes**

Title: **EVALUATION OF OMENTOPEXIA AS A DONOR METHOD OF TRUNK CELLS IN THE ISCHEMIC MYOCARDIUM THROUGH IMMUNO-HISTOQUÍMICA ANALYSIS WITH CD34**

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Abstract:

The implantation of stem cells in the ischemic myocardium has been a therapeutic option in particular in the patients with the impossibility of revascularization being the process of obtaining these cells and implant itself complex. The omentum is known for its angiogenic capacity and cellular recruitment, and it is questioned whether the fixation of the omentum in the ischemic myocardium would stimulate the production of stem cells continuously. The objective is to evaluate the efficacy of omentopexy as a donor of stem cells in the previously ischemic myocardium using CD34 immunohistochemical analysis.

Methods: This is an experimental study in which myocardial infarction was caused in 4 pigs through ligation of the first and second marginal branches of the circumflex artery. In 3 animals, careful abrasion of the infarcted epicardium was performed followed by translocation of the omentum from the abdominal cavity to the mediastinum, involving the infarcted area. In the fourth animal, omentopexy was not performed, and only the abrasion was done in the infarcted area. All hearts were removed and immunohistochemical performed with CD34. Four samples of different sites of each animal were evaluated, totaling 16 samples. CD34 labeling was done in all the evaluated material.

Results: After omentopexy, 40% of samples showed a 60% increase in CD34 labeling in the immunohistological analysis, whereas in the control animal, without omentopexy, the marking observed was minimal.

Conclusion: Omentopexy was shown to be a simple and efficient method for the recruitment of stem cells to the infarcted area, observed through immunohistochemistry with CD34 labeling.