

Author's Accepted Manuscript

Effect of Intra-Myocardial Algisyl-LVR™
Injectates on Fiber Structure in Porcine Heart
Failure

K.L. Sack, E. Aliotta, J.S. Choy, D.B. Ennis, N.H.
Davies, T. Franz, G.S. Kassab, J.M. Guccione



PII: S1751-6161(18)30721-5
DOI: <https://doi.org/10.1016/j.jmbbm.2018.07.005>
Reference: JMBBM2873

To appear in: *Journal of the Mechanical Behavior of Biomedical Materials*

Received date: 8 May 2018
Revised date: 29 June 2018
Accepted date: 2 July 2018

Cite this article as: K.L. Sack, E. Aliotta, J.S. Choy, D.B. Ennis, N.H. Davies, T. Franz, G.S. Kassab and J.M. Guccione, Effect of Intra-Myocardial Algisyl-LVR™ Injectates on Fiber Structure in Porcine Heart Failure, *Journal of the Mechanical Behavior of Biomedical Materials*, <https://doi.org/10.1016/j.jmbbm.2018.07.005>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Effect of Intra-Myocardial Algisyl-LVR™ Injectates on Fiber Structure in Porcine Heart Failure

Sack KL^{a,b}, Aliotta E^c, Choy JS^d, Ennis DB^c, Davies NH^a, Franz T^{a,e}, Kassab GS^d, Guccione JM^{b*}

^aDivision of Biomedical Engineering, Department of Human Biology, University of Cape Town, Cape Town, South Africa

^bDepartment of Surgery, University of California at San Francisco, San Francisco, California, USA

^cDepartment of Radiological Sciences, University of California, Los Angeles, California, USA

^dCalifornia Medical Innovations Institute, Inc., San Diego, California, USA

^eBioengineering Science Research Group, Engineering Sciences, Faculty of Engineering and the Environment, University of Southampton, Southampton, UK

*Corresponding Author: Julius M. Guccione, Jr., Ph.D., Professor, Division of Adult Cardiothoracic Surgery, Department of Surgery, School of Medicine, UCSF, 1657 Scott St., Mount Zion Harold Brunn Institute for Cardiovascular Research, Room 219, San Francisco, CA 94143; Phone: 415-680-6285; 415.750.2181 (Fax). Email: julius.guccione@ucsfmedctr.org

Abstract

Recent preclinical trials have shown that alginate injections are a promising treatment for ischemic heart disease. Although improvements in heart function and global structure have been reported following alginate implants, the underlying structure is poorly understood. Using high resolution ex vivo MRI and DT-MRI of the hearts of normal control swine (n=8), swine with

Download English Version:

<https://daneshyari.com/en/article/7206858>

Download Persian Version:

<https://daneshyari.com/article/7206858>

[Daneshyari.com](https://daneshyari.com)