ARTIGO ORIGINAL / ORIGINAL ARTICLE

SELF-REPAIR IN DEGENERATIVE JOINT DISEASE OF ULTRA-OCTAGENARIAN PATIENTS

AUTO-REPARAÇÃO NA DOENÇA DEGENERATIVA ARTICULAR DE PACIENTES ULTRA-OCTAGENÁRIOS

AUTO-REPARACIÓN EN LA ENFERMEDAD DEGENERATIVA ARTICULAR DE PACIENTES ULTRA-OCTOGENARIOS

Autores
Valerio Di Nicola  M.D. Ph.D. 1,   Renato Di Nicola  M.D. 2

1 Center for Applied Clinical Research of Degenerative Arthropaties, Roma - Itália, 2 Foundation for Basic Biomedical Research, Gondola - Suiça

Corresponding Author: dinicolavalerio@gmail.com

Abstract

Introduction

This study presents a method for treating and structurally improving articulations affected by Degenerative Joint Disease (DJD). The focus of this analysis is on a group of over-eighty, high surgical risk patients (pts) who had been non-responders to currently adopted conservative therapies.

Scholars like Davis, Filatov and Cerletti have been studying and using the regenerative properties of placenta, amnions and other non vital tissues since the early ‘900’s. These pioneering studies have opened a new track for tissue renewal. More recently, the new biological knowledge about extra cellular nucleic acids, growth factors (GF)-as by-products of trauma response- and heat shock proteins (Hsp) has helped research even further.

Building on those experiences, we have developed a regenerative gel obtained with distressed, processed blood, Polydeoxyribonucleotides (Pdrn) and a thickening substance. The objective was to stimulate the local innate stem-cells with our gel in order induce tissue repair.

Methods

From 2003 until 2009 we treated 86 ultra-octogenarian pts with severe osteoarthritis (OA) of the hip and/or knee, obtaining positive therapeutic response in excess of 90%.

Treated patients have been clinically and radiologically evaluated with a follow-up of 6 to 48 months.

Results

Data show a statistically significant improvement in terms of pain and joint mobility, sometimes coupled with a clear radiological improvement. Follow-up shows encouraging data in terms of clinical stability over time. During the study we encountered virtually no side effects, adverse reactions or toxicity.

Conclusions

Currently the pharmacological treatment of DJD is palliative. It has toxicity and side effects. Patients that can be operated conclude their trial with a prosthesis followed by a long rehabilitation period.

This study suggests a new methodological approach and treatment of DJD based on tissue regeneration and restoration resulting in clinical resolution.

Key words: Degenerative Joint Disease (DJD) - Innate Joint Stem-Cells- Mesenchymal Stem-Cells (MSCs) – Growth Factors (GF)- Heat Shock Proteins (HSP)- Polydeoxyribonucleotides (Pdrn) - Regenerative Medicine - Self-repair - Tissue renewal