Author's response to reviews

Title: Regeneration of Bones in Hip Osteonecrosis and Cartilage in Knee Osteoarthritis with Autologous Adipose Tissue-derived Stem Cells in Human - a series of case reports

Authors:

jaewoo j pak (jaewoopak@paksmedical.com)

Version: 8 Date: 18 March 2011

Author's response to reviews: see over
Regeneration of Bones in Hip Osteonecrosis and Cartilage in Knee Osteoarthritis with Autologous Adipose Tissue-derived Stem Cells in Human – a series of case reports

Report by Jaewoo James Pak, MD

Reviewer: Dr. Aleksey Volkov’s review remark – NONE

Reviewer: Dr. Joseph Orgel  Page 4: "The digestive enzyme, collagenase, was then mixed..." First, I would like to apologize for misunderstanding your comment. I have modified the sentences as below. If the reply is not sufficient for you, please feel free to let me know. Again, I apologize for the misunderstanding.

The authors need to be much more specific about the collagenase: An equal volume of digestive enzyme, 0.07% collagenase Type 1, composed of several collagenases, sulphydryl protease, clostripain, a trypsin-like enzyme, and a amino peptidase, derived from clostridium histolyticum (Worthington, Lakewood, NJ, USA, Adilase™) was then mixed with the centrifuged lipoaspirates at a ratio of 1:1 and digested for 30 min at 37°C Celsius while rotating (12). Bactecterial collagenases differ from vertebrate collagenases in that they exhibit broader substrate specificity (13).

Can they also provide a rational for the use of this single enzyme? Although the name is singular “Type 1 Collagenase”, the actual components of the Type 1 collagenase contains several different collagenases in addition to caseinase, clostripain, and tryptic activity enzymes. Thus, in acutuality, Type 1 collagenase is a cocktail of different enzymes.

Author’s Address:  J. Pak, Miplant Stems Clinic, 32-3 Chungdam-Dong, Gangnam-Gu, 4th floor, Seoul, Korea.  e-mail: jaewoopak@paksmedical.com