

Ion Therapy: A Novel Strategy for Acute Myocardial Infarction

Min Yi, Hekai Li, Xiaoya Wang, Jianyun Yan, Long Gao, Yinyan He, Xinglong Zhong, Yanbin Cai, Weijing Feng, Zhanpeng Wen, Chengtie Wu, Caiwen Ou,* Jiang Chang,* and Minsheng Chen*

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The originally published version of this article contained mislabeling errors in the Figure legends and axes as follows:

The original text of the legend in Figure 1a, “Day 1,” “Day 2,” and “Day 3,” is corrected here as “Day 1,” “Day 3,” and “Day 5,” respectively. The x-axes of Figure 6b (bottom row, middle and right images) mislabeled as “0 day” and “28th day,” are corrected here as “EF” and “FS” (middle) and “LVEDD” and “LVESD” (right), respectively. The labels of the bottom images in Figure S7a, Supporting Information, and the x-axis of Figure S7c, Supporting Information, were mislabeled. The original text “sham+1/2CS” (bottom, middle) and “sham+CS” (bottom, right) of Figure S7a is corrected here as “AMI+1/2CS,” and “AMI+CS,” respectively. The original text “sham,” “AMI,” and “AMI+CS” in the x-axis of Figure S7c is corrected here as “AMI,” “AMI+1/2CS,” and “AMI+CS,” respectively.

Also, the DAPI images in Figure 4a of the PBS-90min group and the 1/64CS-90min group were swapped, and the incorrect image for the Cx43 staining, 1/64CS-90min group was presented. The corrected figure is shown below.

Finally, the error bars were missing in Figure 10g,h. The corrected figure is presented below.

The authors state that the conclusions of the article are not affected by these errors and apologize for any inconvenience this may have caused.

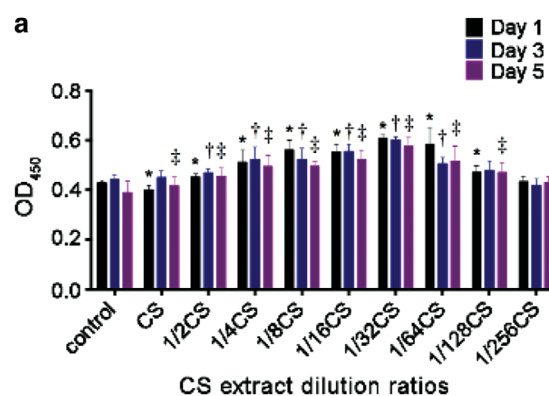


Figure 1. Effects of silicon-enriched ion extracts on NRCMs cell viability under normal and glucose/oxygen deprived conditions. a) NRCM cell viability cultured in different CS extracts diluted with DMEM for 1, 3, and 5 d under normoxia conditions (* $p < 0.01$ vs control group for Day 1; † $p < 0.01$ vs control group for Day 3; ‡ $p < 0.01$ vs control group for Day 5; $n = 6$ for each group).

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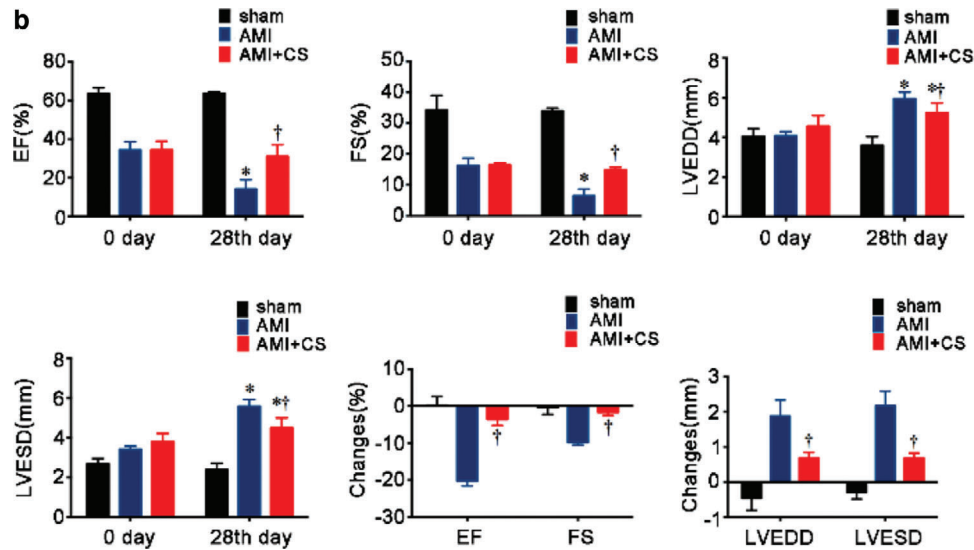


Figure 6. Effect of “ion therapy” on cardiac function and heart remodeling as well as hypertrophy post-MI in vivo. b) Cardiac function measured by left ventricular end-diastolic diameter (LVEDD), LV end-systolic diameter (LVESD), the percentage of LV ejection fraction (EF) and fractional shortening (FS) values and changes before and post “ion therapy”. * $p < 0.05$ versus AMI group, † $p < 0.01$ versus AMI group.

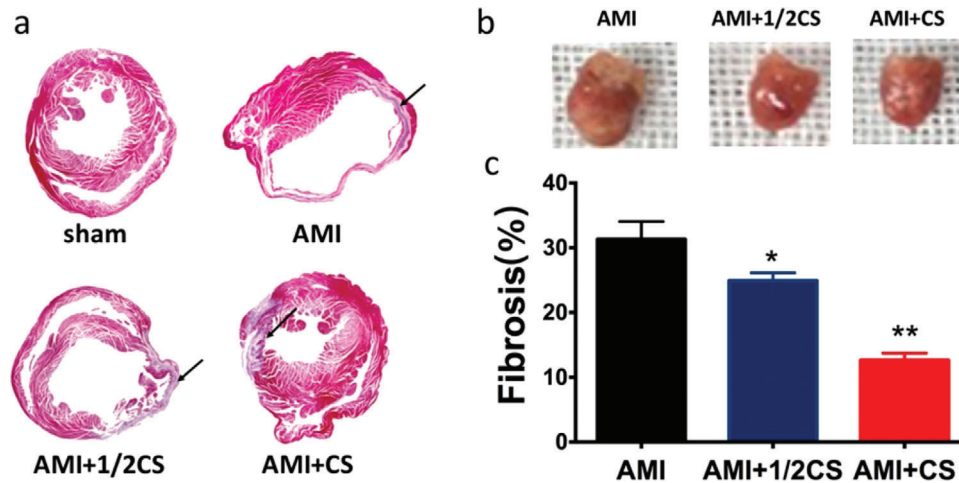


Figure S7. Effect of “ion therapy” of different concentrations on heart remodeling as well as hypertrophy post AMI in vivo. a) Representative Masson’s trichrome staining of heart sections evaluating collagen deposition 4 weeks after surgery. c) Quantitative analysis of the area of fibrosis. Sham group was set as 0% and # $P < 0.001$ vs. AMI group (5 pictures for each group). b) Representative pictures of heart samples indicating hypertrophy degrees. * $P < 0.05$ vs. AMI group, ** $P < 0.01$ vs. AMI group. Sham group $n = 3$; AMI group $n = 3$; AMI+1/2CS1 group $n = 3$ and AMI+ CS group $n = 3$; mean \pm SD.

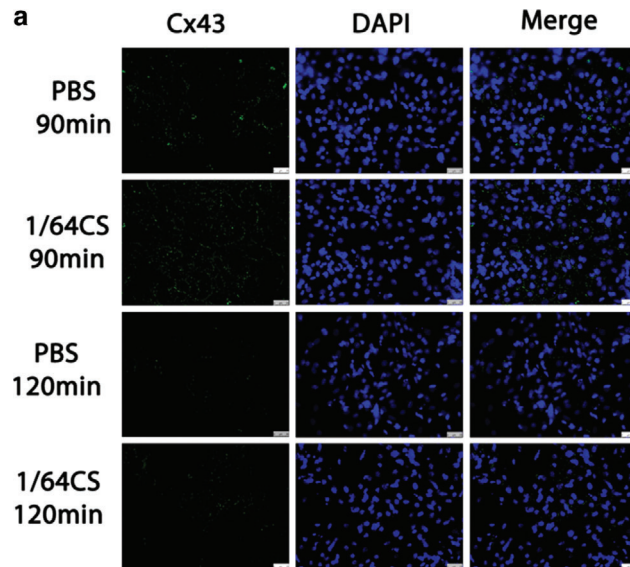


Figure 4. Effect of silicon-enriched ion extract on the expression of gap junction associated Cx43 in NRCMs under glucose/oxygen deprived conditions in vitro. a) Representative images of Cx43 immunofluorescence staining of NRCMs cultured in silicon-enriched ion extracts under glucose/oxygen deprived conditions for 90 and 120 min, respectively. Scale bars represent 25 μm .

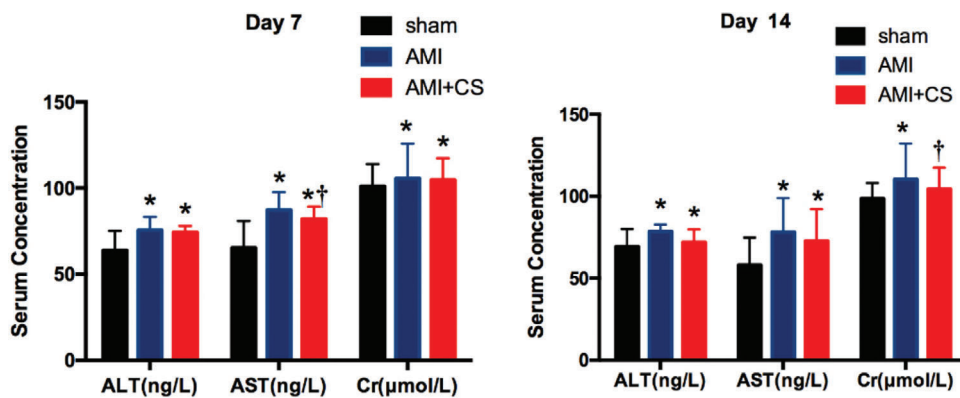


Figure 10. Bio-distribution and metabolism of Si and acute toxicity of “ion therapy.” g) Serum expression of ALT, AST, and Cr level in each groups after injection for 7 d. h) Serum expression of ALT, AST, and Cr level in each groups after injection for 14 d. Sham group $n = 4$; AMI group $n = 7$ and AMI+CS group $n = 13$. * $p < 0.05$ versus sham group or day 0, ** $p < 0.01$ versus Day 0, † $p < 0.05$ versus AMI group; mean \pm SD.