Supplementary Figures

Supplemental Figure 1: Treatment with 2AP during indeterminate stage significantly reduced ER stress in the myocardium of infected mice.

(a)   IHC analysis demonstrated a significant decrease in the levels of ER stress marker BIP in the hearts of infected mice treated with 2AP compared to infected untreated mice at 120DPI.

(b)   IHC analysis demonstrated a significant decrease in the levels of ER stress marker pelF2α in the hearts of infected mice treated with 2AP compared to infected untreated mice at 120DPI.

(c)   IHC analysis demonstrated a significant decrease in the levels of ER stress marker CHOP in the hearts of infected mice treated with 2AP compared to infected untreated mice at 120DPI.

(d)   IHC images of BIP, pELF2α and CHOP staining were quantified and represented as bar graph. Five images from each section were quantified using NIH image-J program. Bars represent mean values of the data with SEM as vertical lines.

Statistical significance compared to uninfected untreated mice is represented by * ($p \leq 0.05$), ** ($p \leq 0.01$) or *** ($p \leq 0.001$). Statistical significance compared to infected untreated mice is represented by # ($p \leq 0.05$), ## ($p \leq 0.01$) or ### ($p \leq 0.001$).

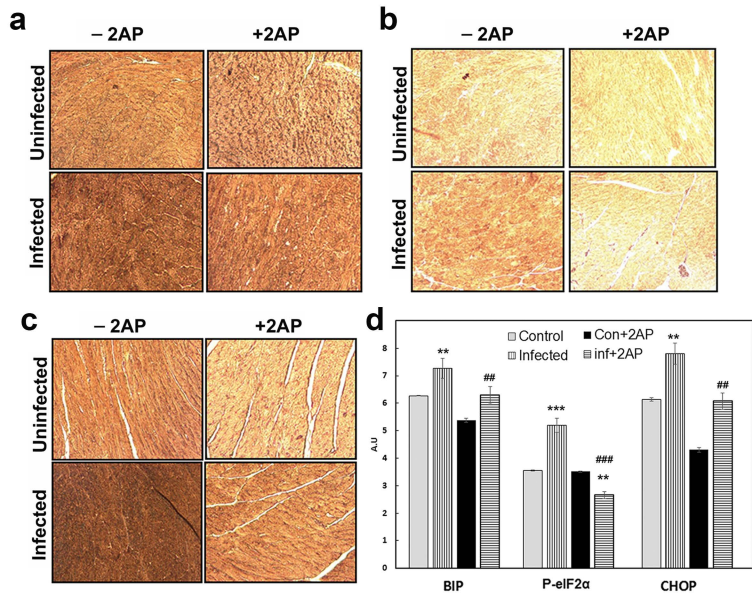**Supplemental Figure 2**: **Histology of the myocardium of mice during chronic stages of infection (additional images, n=8).**
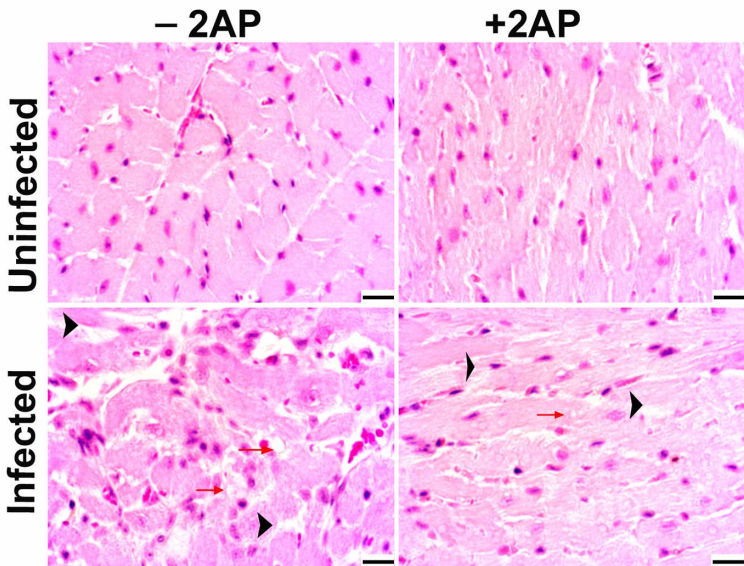
H&E staining displayed significantly more damage (degenerating cardiac muscle fibre – black arrow head and presence of adipocytes or lipid granules – read long arrow) in infected (untreated) mice compared to infected 2AP treated mice at 120 DPI (bar -25um, 40X magnification).

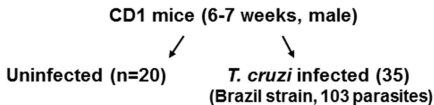**Supplemental Figure 3: Schematic explanation of Experimental design**

Supplemental Figure 1

Supplemental Figure 3

Experimental design

CD1 mice (6-7 weeks, male)

Uninfected (n=20)   *T. cruzi* infected (35)
                          (Brazil strain, 103 parasites)

2- AP (100mg/Kg body weight)/day beginning from 40DPI

−   +   −   +

Cardiac Imaging at 100DPI (n=5)

Euthanized and harvested tissue samples at 120DPI (n=10)
Histological, biochemical and immunological analysis