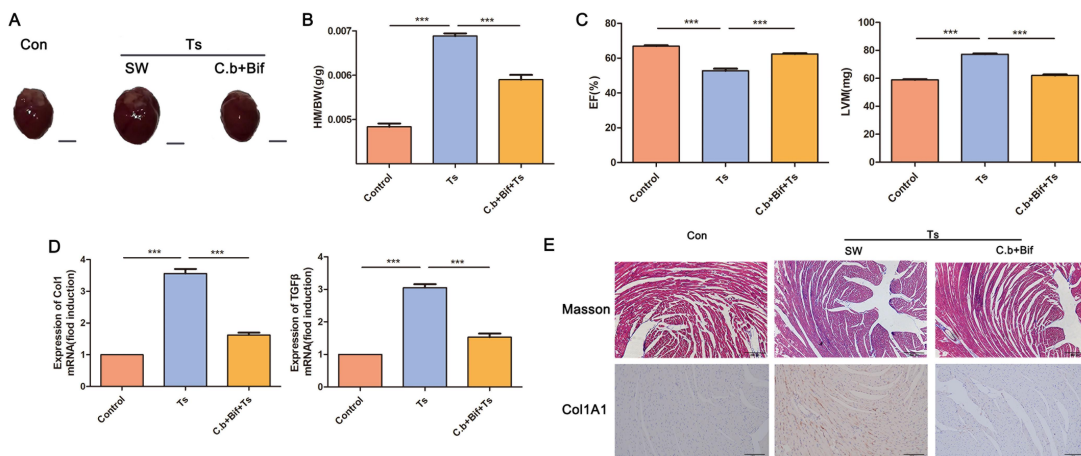


1

2 **Fig. S1 The levels of SCFA in serum of mice in each group.** Bars show the mean
 3 \pm SD (n=5) of three independent experiments. Different SCFA expression levels
 4 among the TAC, ABX+Sham, ABX+TAC and Sham groups were compared by
 5 one-way ANOVA. *, P < 0.05.



6

7 **Fig. S2 Combined use of *C. butyricum* and *B. pseudolongum* effectively improves**
 8 **cardiac fibrosis induced by helminth infection.** (A) Whole heart for each group
 9 (n=6). (B) Heart mass-to-body weight ratio of mice in each group. Representative

10 images are shown. (C) Ejection fraction and left ventricular weight obtained by
11 cardiac ultrasound in each group of mice. (D) qPCR analysis of Col1 and TGF- β
12 expression in the heart tissue of mice in each group. The levels of Col1 and TGF- β in
13 tissues from the Control group were assigned a value of 1.0. Different mRNA
14 expression levels among the Ts, C.b+Bif+Ts and Control groups were compared by
15 one-way ANOVA. *, $P < 0.05$. (F) Masson staining and COL1A1
16 immunohistochemistry results of mouse hearts of mice gavaged with *C. butyricum*
17 and *B. pseudolongum* (C.b+Bif+Ts) after *T. spiralis* (Ts) and Control (Control).
18 Magnification, $200\times$. Representative images are shown.