Supplemental Materials

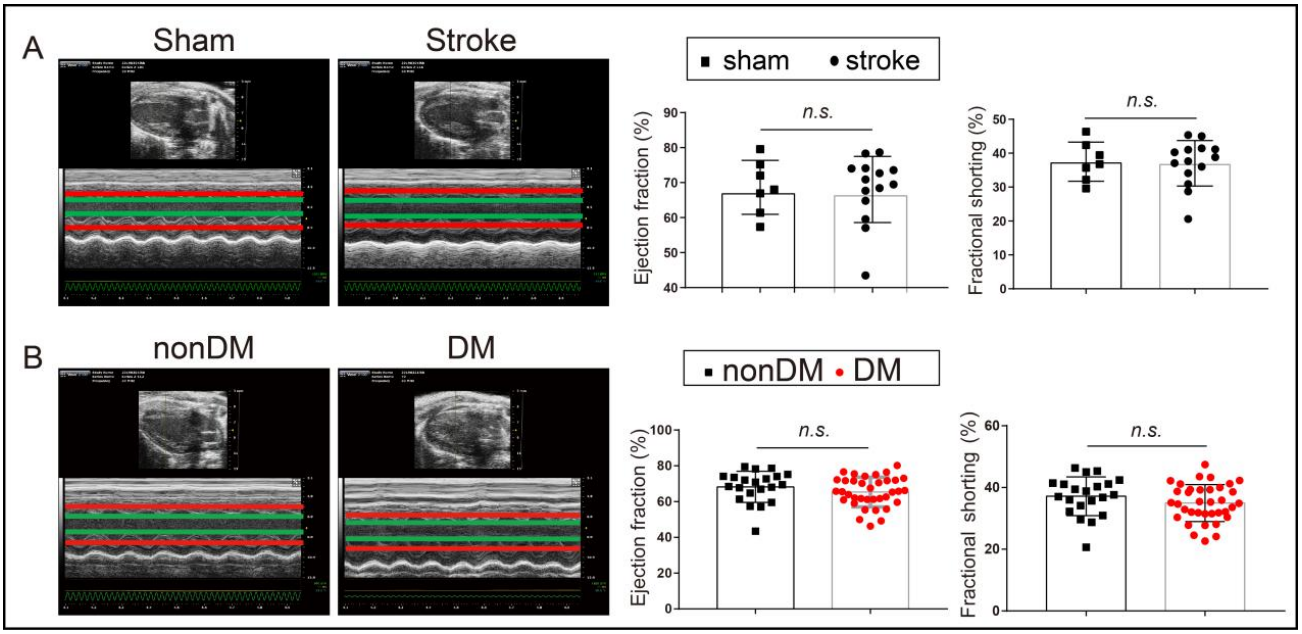

Fig. S1 Echocardiography before MCAO surgery. **A** Echocardiography in sham (n = 7) and stroke (n = 14) groups before MCAO or sham operation. **B** Echocardiography in nonDM (n = 21) and DM (n = 36) groups before MCAO. nonDM, non-diabetic; DM, diabetic group. Data are expressed as mean ± SD. Statistical analysis by Student t-test (for single comparison). n.s.=not significant.

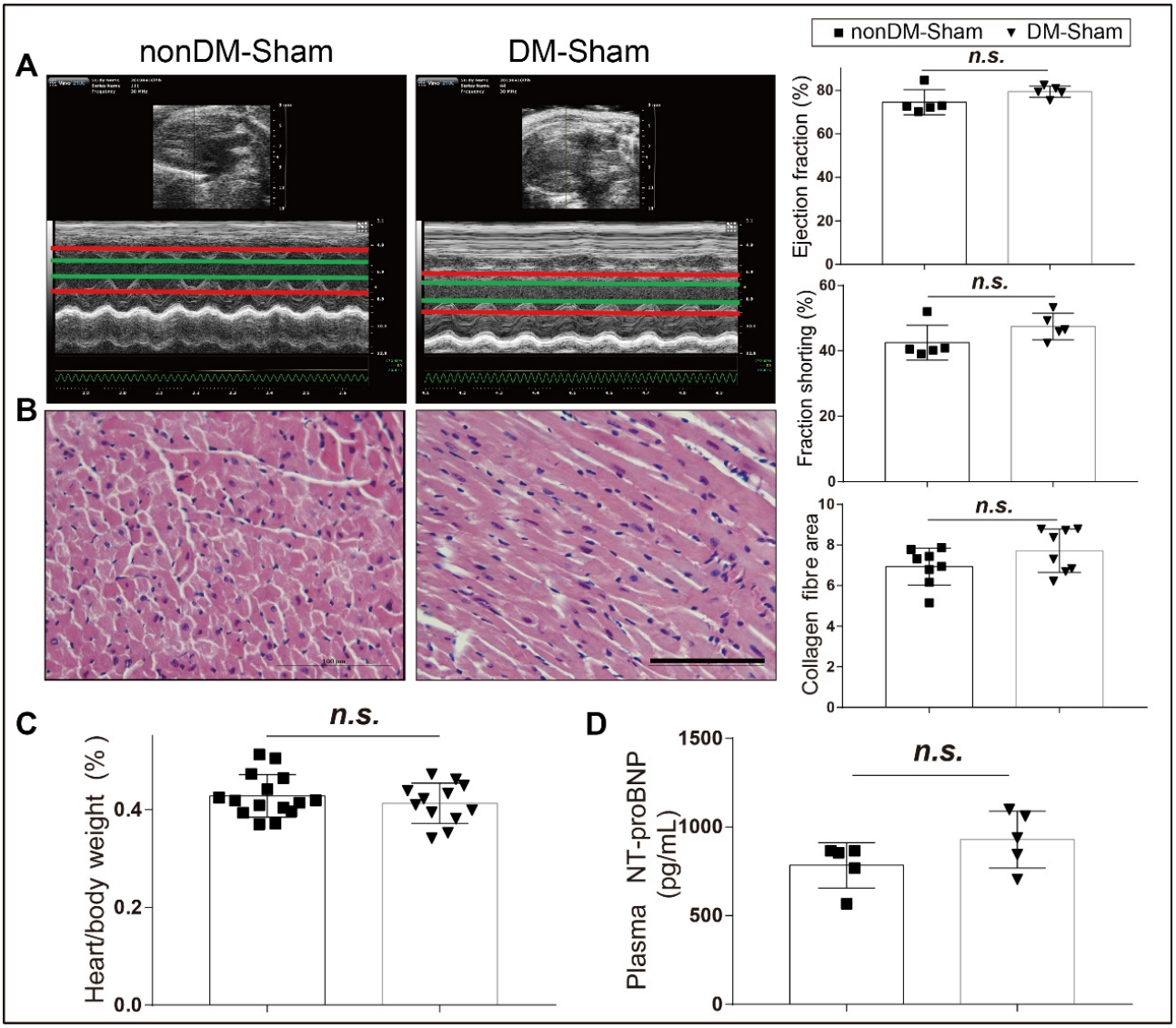

Fig.S2 Diabetes does not affect cardiac function in sham-operated mice. **A** Echocardiography (left) and ejection fraction and fractional shortening (right) in nonDM-Sham and DM-Sham groups (n = 5 per group). **B** PicroSirius Red staining (left) and collagen fiber area (right) of ventricular tissue in nonDM-Sham and DM-Sham groups (n = 8 per group) (magnification, 400×; scale bar, 100 μm) **C** Heart/body weight in nonDM-Sham (n = 15) and DM-Sham (n = 12) groups. **D** Plasma NT-proBNP levels in nonDM-Sham and DM-Sham groups (n = 5 per group). nonDM-Sham, non-diabetic sham group; DM-Sham, diabetic sham group; Data are expressed as the mean ± SD. n.s., not significant (Student's t-test).

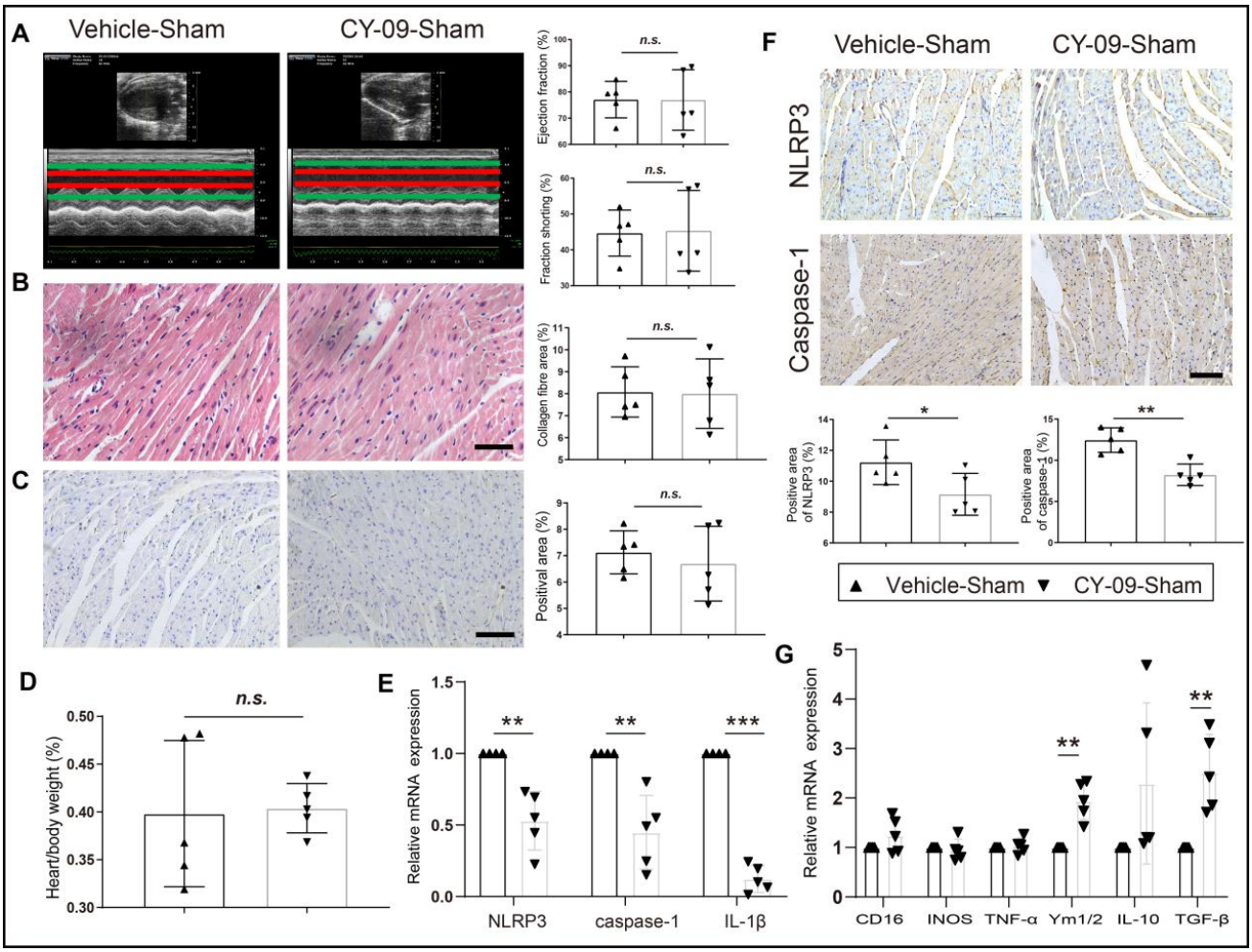

Fig. S3 CY-09 inhibits NLRP3 in the heart but does not affect cardiac function in sham-operated mice. **A** Echocardiography (left) and ejection fraction and fractional shortening (right) in Vehicle-Sham and CY-09-Sham groups (*n* = 5 per group). **B** PicroSirius red staining (left) and collagen fiber area (right) in ventricular tissue from Vehicle-Sham and CY-09-Sham mice (*n* = 5 per group). **C**, **F** Immunohistochemical staining for α-SMA, NLRP3, and caspase-1 in ventricular tissue from Vehicle-Sham and CY-09-Sham mice (*n* = 5 per group). **D** Heart/body weight in Vehicle-Sham and CY-09-Sham groups (*n* = 5 per group). **E**, **G** Relative gene expression of NLRP3, caspase-1, IL-1β, and macrophage polarization markers in apex myocardial tissue. β-Actin served as an endogenous reference gene (*n* = 4 in Vehicle-Sham and *n* = 5 in CY-09-Sham). IL, interleukin; INOS, inducible

nitric oxide synthase; TNF-α，tumor necrosis factor alpha; TGF-β, transforming growth factor beta. Data are expressed as the mean ± SD. *P < 0.05, **P < 0. 01, ***P < 0.001, n.s., not significant (Student's *t*-test or one-way ANOVA). Magnification, 400× in **B**, 200× in **C** and **F**; scale bars, 100 μm in **B**, 50 μm in **C** and **F**.