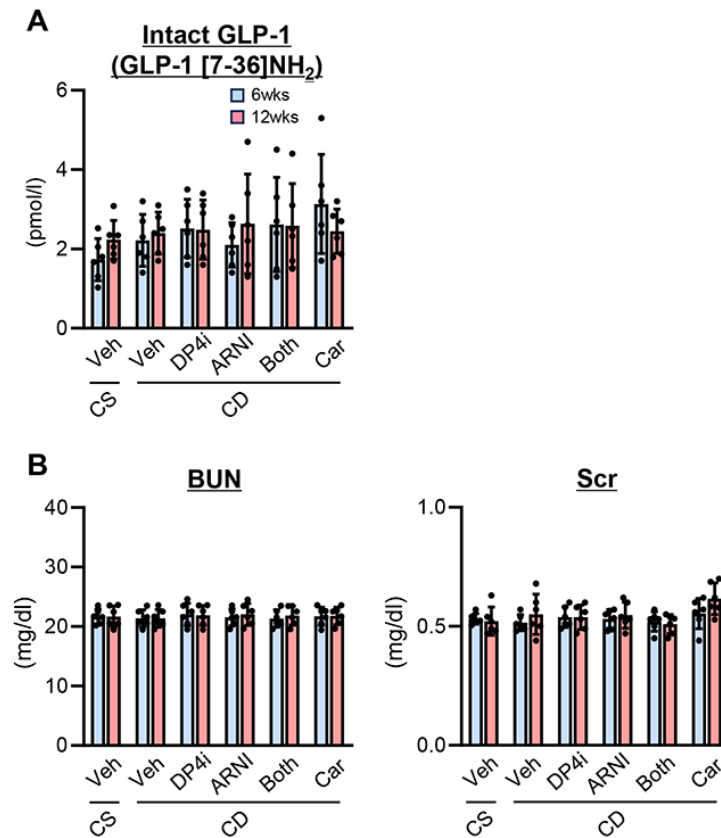
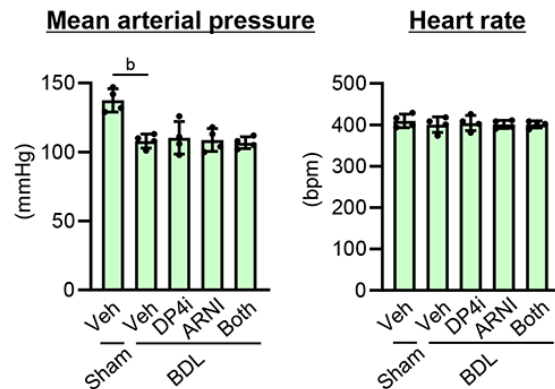


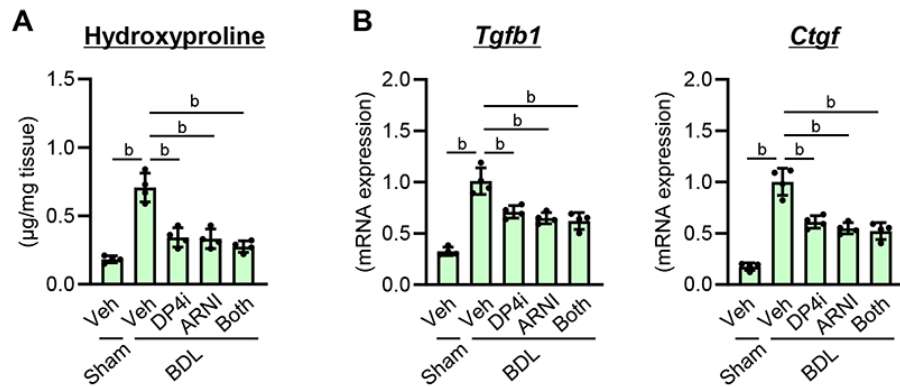


Supplementary Figure 1 Serum GLP-1, blood urea nitrogen levels in CDAHFD-fed rats. (A) Serum level of GLP-1 after 6 and 12 weeks of the experiment. (B) Serum blood urea nitrogen and creatinine after 6 and 12 weeks of the experiment. Data are the mean $\pm$ SD (n = 6, A, B). Significant difference between groups determined by Student's t-test. CS, CSANFD-fed group; CD, CDAHFD-fed groups; Veh, vehicle (saline)-treated groups; DP4i, DPP4-I (vildagliptin)-treated group; ARNI, ARNI (sacubitril/valsartan)-treated group; Both, DPP4-I and ARNI-treated group; Car, carvedilol-treated group.



Supplementary Figure 2 Systemic hemodynamics in bile duct-ligated rats.

Mean arterial pressure and heart rate in bile duct-ligated rats at the end of experiment. Data are the mean $\pm$ SD ($n = 4$). ^b $P < 0.01$, significant difference between groups determined by Mann-Whitney U test. Sham, sham-operated group; BDL, bile duct-ligated groups; Veh, vehicle (saline)-treated groups; DP4i, DPP4-I (vildagliptin)-treated group; ARNI, ARNI (sacubitril/valsartan)-treated group; Both, DPP4-I and ARNI-treated group.



Supplementary Figure 3 Hepatic hydroxyproline and mRNA expression of Tgfb1 and Ctgf in bile duct-ligated rats. (A) Hepatic content of hydroxyproline. (B) Hepatic mRNA levels of Tgfb1 and Ctgf. The mRNA expression levels were measured by qRT-PCR, and Gapdh was used as internal control. Quantitative values are indicated as fold changes to the values of BDL+Veh group (B). Data are the mean $\pm$ SD (n = 4). ^bP < 0.01, significant difference between groups determined by Mann-Whitney U test. Sham, sham-operated group; BDL, bile duct-ligated groups; Veh, vehicle (saline)-treated groups; DP4i, DPP4-I (vildagliptin)-treated group; ARNI, ARNI (sacubitril/valsartan)-treated group; Both, DPP4-I and ARNI-treated group.

Supplementary Table 1 List of primers used in q-PCR

Gene	Sense (5'-3')	Antisense (5'-3')
<i>Gapdh</i>	AGCTTGTCAACGCGGAAG	TTTGATGTTAGTGGGGTCTCG
<i>Cth</i>	CCATCCACGTGGGACAAGAG	GGATTTCAGAGCGGCTGTA
<i>Ddah1</i>	CGTGGCCGATTCTTTGCATT	CATGCCCTTTGCTGGGGATA
<i>Gch1</i>	TCACCTGGTCCCATTTGTGG	TGGCAAGTTTGCTGAGACCA
<i>Agtr1</i>	AGAGGATTCGTGGCTTGAGTC	CGAAATCCACTTGACCTGGTG
<i>Nox4</i>	CCTCTGTCTGCTTGTTTGGC	ATCCTAGGCCCAACATCTGG
<i>Pecam1</i>	CGGATCGGATCGACAGAGTG	TATTTGACGGCAGCAGAGCA
<i>Edn1</i>	CCAGCGTCCTTGTTCCAAAC	TCACTTGCTACCAGCGGATG
<i>Lamb1</i>	ACACGAAGAAAAGACGGGCA	AGTAGGGCTCTGGTTTGTGC
<i>Lyve1</i>	GCTTCGCAAAGCATCACACG	TGCTGCAGATTTCCCCAGTT
<i>Plvap</i>	TGAACATCAGCACCCCTCGTC	CTCGCTCAGGATGATAGCGG
<i>Stab2</i>	GGGCCTGGGGATGAAATTGAG	TAAGCAGGTGGCATTGTCGT
<i>Shh</i>	GTAACGCTACGAGAGGAGGC	GAGCACCCGGTTGATGAGAA
<i>Gli2</i>	GCCACCCAAGAGTATGAGCC	CATGTCAATCGGCAAAGGCA
<i>Gli3</i>	CAAATGGGGCAGGGGTACAT	ACGTCCTGAGCTGTCCTTG
<i>Sfrp1</i>	TCGAAGCCCCAAGGTACAAC	GTTCGATGATGGCCTCCGAT
<i>Opn</i>	CCAGCCAAGGACCAACTACA	TCTCCTCTGAGCTGCCAAAC
<i>Vcam1</i>	ACTGTGACCTGTCAGCGAAG	TTAGGGACCGTGCAGTTGAC
<i>Icam1</i>	GTGAAGTCTGTCAAACGGGAG	CGCAATGATCAGTACCAACAC
<i>Notch1</i>	CCCATTACATGCCGCTGTTTC	CATCATGCATTCTGGGCATC
<i>Vegfa</i>	TATATCTTCAAGCCGTCCTGTG	TCTCCTATGTGCTGGCTTTG
<i>Ptgs2</i>	GATGACGAGCGACTGTTCCA	TGGTAACCGCTCAGGTGTTG

<i>Pigf</i>	GGGCGGGAGAGTTAGATAGT	GCATCTGACAACTCGGGCTA
<i>Vwf</i>	TCTGGCTGTGACGACTTCAA	GTGACACCGCTCACTCCTAA
<i>Acta2</i>	CAGCTATGTGGGGGACGAAG	TCCGTTAGCAAGGTCGGATG
<i>Col1a1</i>	CCCAGCCGCAAAGAGTCTAC	CAGGTTTCCACGTCTCACCA
<i>Tgfb1</i>	CCCCTACATTTGGAGCCTGG	TTGCGACCCACGTAGTAGAC
<i>Ctgf</i>	CTGTGGGAGAAAACACCCCA	CACTCTTCCAGGAGGCTCAC
