**Additional files**

**ADDITIONAL FIGURE LEGENDS**

**Figure S1. Anti-inflammatory effects of dapagliflozin on immunohistochemistry analysis.**

**A-C** The expression of RAM11, RAGE and TNF-α in the myocardium was detected by immunostaining. Values are means ± SEM (n = 10 per group). Scale bar = 200 μm. \*\*\**p* < 0.001 compared to Control group, ††*p* < 0.01, †††*p* < 0.001 compared to Diabetes group.

**Figure S2. Dapagliflozin significantly decreased inflammation markers in H9C2.**

**A** RT-PCR expression of TNF-α and IL-6. Comparisons of relative mRNA expression, normalized to expression of β-actin. **B** Western blot expression of pNF-kB, NF-kB, TNF-α and IL-6. Representative data showing protein expression, normalized to expression of GAPDH. Values are means ± SEM (n = 6). \**p* < 0.05, \*\**p* < 0.01, \*\*\**p* < 0.001 compared to Control, †*p* < 0.05, ††*p* < 0.01 compared to DMSO, §*p* < 0.05, §*p* < 0.01 compared to HG. GAPDH, glyceraldehyde 3-phosphate dehydrogenase; IL-6, interlukin-6; NF-κB, Nuclear factor kappa-light-chain-enhancer of activated B cells; TNF-α, tumor necrosis factor-α.

**Figure S3. Schematic design of the study protocol.**

Animals were randomized to Control, Diabetes, Diabetes+Dapa groups. Diabetic condition was induced for animals in Diabetes and Diabetes+Dapa groups. Dapagliflozin (1mg/kg/day) treated depending on their group assignment, for 8 weeks. After follow up echocardiography, animals were subsequently sacrificed and tissue samples were collected for assessment of histological and molecular remodeling.

**Table S1. List of rabbit primers.**

|  |  |  |
| --- | --- | --- |
| **Gene** | **Forward primer** | **Reverse primer** |
| GAPDH | AGGTCATCCACGACCACTTC | GTGAGTTTCCCGTTCAGCTC |
| α-SMA | TGCTGTCCCTCTATGCCTCT | GAAGGAATAGCCACGCTCAG |
| Collagen | ATCAGGGACTTCCTGGTCCT | GTCCTTTCTGGCCATCATGT |
| Fibronectin | TTGCAACCCACAGTGGAATA | TTCATTGGTCCGGTCTTCTC |
| TGF-β1 | TGCTTCAGCTCCACAGAGAA | CTTGCTGTACTGGGTGTCCA |
| SGK1 | GAACCACGGGCTCGTTTCTAT | GCAGGCCATACAGCATCTCAT |
| ENaC | ACGAGACCATCCTCAGCACT | TCCTGCCGATGGATTAGAAC |
| NHE1 | CTGTCAGGGTGTGAGCAGAA | TGCGCTTTTCTCTTCCGTAT |
| Fis-1 | CGGAGCAAGTACAACGATGA | GCCCTGTCGTACTCTTGAGC |
| Mfn-1 | CCCTTCTGTTTTGGCAGGTA | AGGAAGCGTAACTGGAGCAA |
| Real-time GAPDH | TGACGACATCAAGAAGGTGGTG | GAAGGTGGAGGAGTGGGTGTC |
| Real-time SGLT1 | TCCTCACCCTTTGGTACTGG | ACAGGATACGGCTCACCATC |
| Real-time SGLT2 | GCCTTATTCCCGAGTTCTCC | GAGGCCAGAGCAGAAGAAGA |

**Table S2. List of H9C2 primers.**

|  |  |  |
| --- | --- | --- |
| **Gene** | **Forward primer** | **Reverse primer** |
| β-actin | GTGGGCGCTCTAGGCACAA | CTCTTTGATGTCACGCACGATTTC |
| SGK1 | TGCTCTATGGCCTGCCTCCGTTCT | GTCACTGGGCCCGCTCACATTTG |
| NHE1 | CACGCTGTGGAATGAT | GAAGATGTCCGAGATGC |
| Fibronectin | TCAGCTGTACCATTGCAAATC | TGGTGTCCTGATCATTGCAT |
| TNF-α | AGATGTGGAACTGGCAGAGG | CCCATTTGGGAACTTCTCCT |
| IL-6 | TTGACAGCCACTGCCTTCCC | CGGAACTCCAGAAGACCAGAGC |
| TGF-b1 | GCAACAACGCAATCTATGAC | CCTGTATTCCGTCTCCTT |
| SGLT1 | GACTGATTCTCGGCTTCCTG | GTGAGGAGGGAGATGACCAA |
| SGLT2 | TTCTGTCATCGCACTCTTGG | GATCCTTGGACACCGTCAGT |
| ENaC | CGTCAGTGGCACAAAGCCAA | GAGAGCCTCCTCAAACCATG |

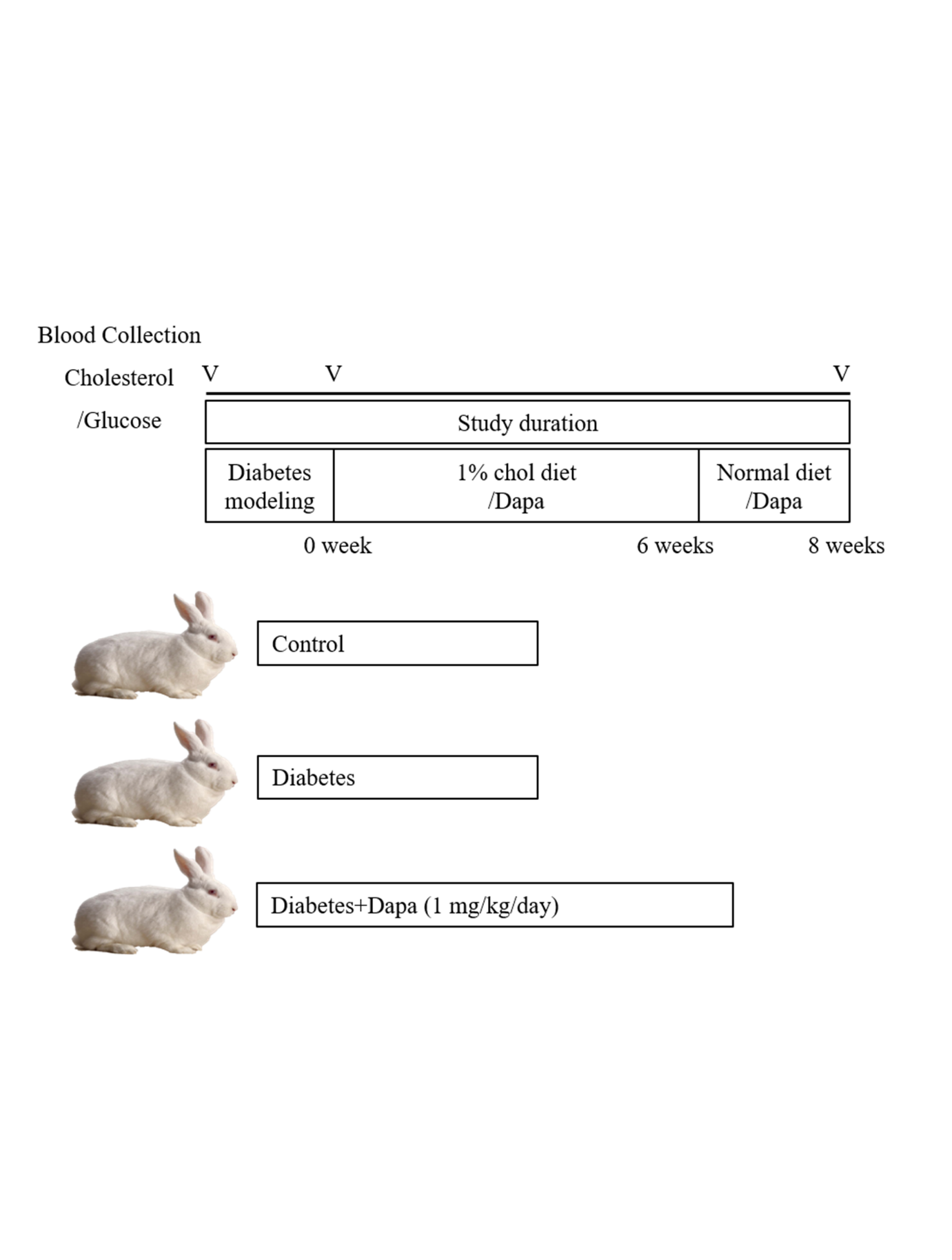
**Figure S1**

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**Figure S2**

**H:\바탕화면\SDAR heart 논문쓰기\SDAR heart BMC medicine rivision\2022.06.30 revision\V4 spss\Figure Ver 3.3-spss(고해상도)\sFigure 2.TIF**

**Figure S3**

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