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Figure 1. The results of mendelian randomization (MR) with diabetes as the exposure factor and heart failure, hypertension, coronary heart disease, chronic kidney disease (CKD), hyperlipidemia, pneumonia, liver insufficiency, anemia, chronic obstructive pulmonary disease (COPD), hyperthyroidism, and stroke as the outcomes:

(A) The scatter plot shows the genetic correlations between diabetes and heart failure using different MR methods.

(B) The forest plot shows the causal effects of single nucleotide polymorphisms (SNPs) associated with diabetes on heart failure.

(C) The scatter plot shows the genetic correlations between diabetes and hypertension using different MR methods.

(D) The forest plot shows the causal effects of SNPs associated with diabetes on hypertension.

(E) The scatter plot shows the genetic correlations between diabetes and coronary heart disease using different MR methods.

(F) The forest plot shows the causal effects of SNPs associated with diabetes on coronary heart disease.

(G) The scatter plot shows the genetic correlations between diabetes and chronic kidney disease (CKD) using different MR methods.

(H) The forest plot shows the causal effects of SNPs associated with diabetes on CKD.

(I) The scatter plot shows the genetic correlations between diabetes and hyperlipidemia using different MR methods.

(J) The forest plot shows the causal effects of SNPs associated with diabetes on hyperlipidemia.

(K) The scatter plot shows the genetic correlations between diabetes and pneumonia using different MR methods.

(L) The forest plot shows the causal effects of SNPs associated with diabetes on pneumonia.

(M) The scatter plot shows the genetic correlations between diabetes and liver insufficiency using different MR methods.

(N) The forest plot shows the causal effects of SNPs associated with diabetes on liver insufficiency.

(O) The scatter plot shows the genetic correlations between diabetes and anemia using different MR methods.

(P) The forest plot shows the causal effects of SNPs associated with diabetes on anemia.

(Q) The scatter plot shows the genetic correlations between diabetes and chronic obstructive pulmonary disease (COPD) using different MR methods.

(R) The forest plot shows the causal effects of SNPs associated with diabetes on COPD.

(S) The scatter plot shows the genetic correlations between diabetes and hyperthyroidism using different MR methods.

(T) The forest plot shows the causal effects of SNPs associated with diabetes on hyperthyroidism.

(U) The scatter plot shows the genetic correlations between diabetes and stroke using different MR methods.

(V) The forest plot shows the causal effects of SNPs associated with diabetes on stroke.

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Figure S2. Results of Mendelian randomization(MR) with hypertension, coronary heart disease, heart failure, chronic obstructive pulmonary disease (COPD), hyperthyroidism, pneumonia, stroke, liver insufficiency, hyperlipidemia, and anemia as exposure factors and atrial fibrillation as the outcome:

(A) The scatter plot shows the genetic correlations between hypertension and atrial fibrillation using different MR methods.

(B) The forest plot shows the causal effects of single nucleotide polymorphisms (SNPs) associated with hypertension on atrial fibrillation.

(C) The scatter plot shows the genetic correlations between coronary heart disease and atrial fibrillation using different MR methods.

(D) The forest plot shows the causal effects of SNPs associated with coronary heart disease on atrial fibrillation.

(E) The scatter plot shows the genetic correlations between heart failure and atrial fibrillation using different MR methods.

(F) The forest plot shows the causal effects of SNPs associated with heart failure on atrial fibrillation.

(G) The scatter plot shows the genetic correlations between COPD and atrial fibrillation using different MR methods.

(H) The forest plot shows the causal effects of SNPs associated with COPD on atrial fibrillation.

(I) The scatter plot shows the genetic correlations between hyperthyroidism and atrial fibrillation using different MR methods.

(J) The forest plot shows the causal effects of SNPs associated with hyperthyroidism on atrial fibrillation.

(K) The scatter plot shows the genetic correlations between pneumonia and atrial fibrillation using different MR methods.

(L) The forest plot shows the causal effects of SNPs associated with pneumonia on atrial fibrillation.

(M) The scatter plot shows the genetic correlations between stroke and atrial fibrillation using different MR methods.

(N) The forest plot shows the causal effects of SNPs associated with stroke on atrial fibrillation.

(O) The scatter plot shows the genetic correlations between liver insufficiency and atrial fibrillation using different MR methods.

(P) The forest plot shows the causal effects of SNPs associated with liver insufficiency on atrial fibrillation.

(Q) The scatter plot shows the genetic correlations between hyperlipidemia and atrial fibrillation using different MR methods.

(R) The forest plot shows the causal effects of SNPs associated with hyperlipidemia on atrial fibrillation.

(S) The scatter plot shows the genetic correlations between anemia and atrial fibrillation using different MR methods.

(T) The forest plot shows the causal effects of SNPs associated with anemia on atrial fibrillation.

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Figure 3. Results of Mendelian randomization(MR) with atrial fibrillation as the exposure factor and stroke, heart failure, hypertension, coronary heart disease, and diabetes as the outcomes:

(A) The scatter plot shows the genetic correlations between atrial fibrillation and stroke using different MR methods.

(B) The forest plot shows the causal effects of single nucleotide polymorphisms (SNPs) associated with atrial fibrillation on stroke.

(C) The scatter plot shows the genetic correlations between atrial fibrillation and heart failure using different MR methods.

(D) The forest plot shows the causal effects of SNPs associated with atrial fibrillation on heart failure.

(E) The scatter plot shows the genetic correlations between atrial fibrillation and hypertension using different MR methods.

(F) The forest plot shows the causal effects of SNPs associated with atrial fibrillation on hypertension.

(G) The scatter plot shows the genetic correlations between atrial fibrillation and coronary heart disease using different MR methods.

(H) The forest plot shows the causal effects of SNPs associated with atrial fibrillation on coronary heart disease.

(I) The scatter plot shows the genetic correlations between atrial fibrillation and diabetes using different MR methods.

(J) The forest plot shows the causal effects of SNPs associated with atrial fibrillation on diabetes.