

flowchart TB

%% Initial insults

subgraph A[Initial cardiac systemic insults]

I1[Ischemic injury MI]

I2[Hypertension pressure overload]

I3[Valvular disease]

I4[Cardiomyopathy myocarditis]

I5[Arrhythmia]

I6[Toxic metabolic infiltrative causes]

end

%% Cardiac dysfunction

CD[Cardiac dysfunction]

I1 --> CD

I2 --> CD

I3 --> CD

I4 --> CD

I5 --> CD

I6 --> CD

%% Neurohormonal activation

NH[Compensatory neurohormonal activation]

%% Ventricular remodeling

VR[Ventricular remodeling]

%% Progressive deterioration

PD["Progressive deterioration"]

CD --> NH

NH --> VR

VR --> PD

VR --> CD

PD --> CD

%% Left pathway

LP[Left-sided pathway]

CD --> LP

%% Right pathway

RP[Right-sided pathway]

CD --> RP

%% Cardiorenal

CR[Cardiorenal syndrome]

CD --> CR

CR --> CR

%% Hepatic

CH[Congestive hepatopathy low-flow injury]

%% Systemic

SC[Systemic consequences]

NH --> SC

%% Vicious cycle

VC[Self-amplifying vicious cycle]

LP --> VC

RP --> VC

CH --> VC

SC --> VC