Caption:   
Embryos with Defective Myocardial Function Do Not Form AV ECs(A–C) Fluorescence micrographs of embryos carrying a tie2::GFP transgene, visualized at 48 hpf. In (A), the endocardial ring is visible as a collection of GFP-positive cells at the AV boundary in wild-type (wt) embryos (red arrow). In (B), sih−/− embryos fail to form an AV ring at 48 hpf. In (C), cfk−/− embryos fail to form an AV ring at 48 hpf.(D and E) Cushion development remains defective in cfk−/− embryos. In (D), a 5 μm hematoxylin and eosin-stained plastic section shows the initial stages of cushion development at the AV boundary (red arrows) in a 72 hpf wild-type embryo, with the ECs being two to three cell layers thick at this stage. In (E), a cfk −/− embryo at 72 hpf shows dilation of both chambers of a blood-filled heart with no evidence of cushion formation at the AV boundary (red arrows).(F and G) cfk−/− embryos fail to form ECs at late stages. Embryos were visualized at identical magnification after counter-staining with rhodamine phalloidin. Red blood cells (RBCs) are seen in the atria of the hearts. In (F), confocal microscopy of a 96 hpf wild-type heart from a tie2::GFP line shows triangular ECs at the AV boundary (blue arrows). In (G), cfk−/− embryos at 96 hpf lack cushion formation and clustering of GFP-positive cells at the AV boundary (blue arrows).(H) At 72 hpf, wild-type embryos have narrow hearts with forward blood flow through the embryo.(I) At 72 hpf, cfk−/− embryos have dilated hearts filled with blood that regurgitates freely from the ventricle to the atrium.(J and K) The initial phenotype in cfk−/− embryos is cardiac dilation at 36 hpf. In (J), wild-type embryos have a narrow ventricle and generate pulsatile flow at 36 hpf. In (K), cfk−/− embryos have an increased end-diastolic diameter (on average 1.18× wild-type, p < 0.01) and do not generate blood flow at 36 hpf.(L and M) Increased bmp-4 expression at the AV boundary (red arrow) is observed in wild-type (L) and cfk−/− (M) embryos at 42 hpf in anticipation of endocardial ring formation.(N) Orientation of the embryos shown in (L) and (M).

Question: What is the consequence of malfunctioning myocardial function in embryonic heart development?   
   
A: Failure to form cushion   
B: Failure to form endocardial ring   
C: Lack of blood flow generation   
D: All of the above

Answer: D: All of the above