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Endothelial-specific fibroblast growth factor receptor 1 and 2 deletion impairs vascular remodeling and recovery in an in vivo, closed-chest model of cardiac ischemia-reperfusion injury

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Ablation of FGFR1 and FGFR2 in endothelial cells has no baseline effect on cardiac function or vessel density (both arteriole and capillary). After in vivo, closed-chest cardiac IR injury, FGFR1 and FGFR2 ablation in endothelial cells resulted in reduced cardiac function and increased wall-motion abnormalities at 7 days but not 1 day of reperfusion. Ablation of FGFR1 and FGFR2 in endothelial cells does not effect the cardiac hypertrophic response to IR.

Vascular remodeling after IR injury is impaired in mice with endothelial-specific ablation of FGFR1 and FGFR2.

**CONCLUSION**

Ablation of FGFR1 and FGFR2 in endothelial cells results in impaired vascular remodeling, worsened cardiac functional recovery, and increased infarct size without affecting the cardiac hypertrophic response in an in vivo, closed-chest model of cardiac ischemia-reperfusion injury.