Peripheral Isoforms and Cardiac Remodeling After Myocardial Infarction
Is the Dispute Settled?

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Cardiac fibrosis, which occurs mainly because of increased collagen formation by activated cardiac fibroblasts (myofibroblasts), impairs cardiac function, metabolism, and electric coupling of myocardium, resulting in various cardiac diseases, such as heart failure, arrhythmias, and sudden cardiac death. Therefore, prevention of excessive cardiac fibrosis is important for the treatment of these cardiac diseases.

After myocardial infarction (MI), cardiomyocyte death immediately ensues, followed by the infiltration of a variety of inflammatory and immune cells. Cardiac fibroblasts are activated to proliferate and secrete extracellular matrix proteins to form a fibrotic scar with significant tensile strength that replaces regions of cardiomyocyte dropout (ie, replacement fibrosis). This fibrotic process is thought to be essential for the treatment of these cardiac diseases.

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cardiac fibrosis and remodeling after MI, whereas Pn-2/4 prevents cardiac rupture of the infarcted area. It would be interesting to compare a group treated with the neutralizing antibody against all isoforms of periostin with a group treated with the selectively neutralizing antibody against Pn-1. If the neutralizing antibody could block the function of all isoforms of periostin completely, this fully blocked group rat may potentially be prone to cardiac rupture after MI like periostin knockout mice. Such a direct comparison of responses to periostin completely, this fully blocked group rat may
neutralizing antibody could block the function of all isoforms with the selectively neutralizing antibody against Pn-1. If the antibody against Pn-1 would be also effective for the suppression of interstitial reactive fibrosis induced by pressure overload. These studies would provide us with a rationale for extensive clinical use in patients with nonischemic heart failure and cardiac remodeling because of pressure overload.

**Disclosures**

None.

**References**

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