

Myointimal hyperplasia is a complex pathological process of the vascular system characterized by an abnormal proliferation of smooth muscle cells of the vascular wall. Proliferating smooth muscle cells migrate to the subendothelial area and form the hyperplastic lesion, which causes stenosis and obstruction of the vascular lumen. The pathogenesis of myointimal hyperplasia remains under investigation. However, it has been established that both mechanical and chemical factors may induce this process. Arterial injury is believed to stimulate the production of growth factors, such as platelet-derived growth factor (PDGF), which have been shown to stimulate the proliferation of arterial smooth muscle cells and the formation of the hyperplastic lesion in the vascular system. These growth factors and cytokines have been found to be secreted by a variety of cells, including endothelial cells, macrophages, platelets, and arterial smooth muscle cells. Blocking the effects of growth factors such as PDGF or fibroblast growth factor (FGF), by the administration of their antibodies, has been shown to limit the development of the hyperplastic lesion ¹⁾.

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Neville RF, Sidawy AN. Myointimal hyperplasia: basic science and clinical considerations. *Semin Vasc Surg.* 1998 Sep;11(3):142-8. Review. PubMed PMID: 9763114.

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