

Level of patency for a one year period of infra-inguinal arterial bypass in patients with peripheral artery disease

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Abstrak

Introduction: Peripheral arterial disease (PAD) is the most common macroangiopathic complication in type II diabetes mellitus, arising from inadequate blood sugar control. In the presence of PAD, the risk of limb loss will also increase, and arterial bypass is one method to reduce the risk of amputation. In Indonesia, the level of patency for the arterial bypass has not yet been published. On bypass with venous grafts, the patency rates at the location of infrapopliteal reach at 70-80%, while the prosthetic graft is 30-50%.

Method: From 2009 to 2012, patients with arterial bypasses were analyzed. The level of patency was described by ultrasound examination and pulsation on clinical examination in the distal anastomosis, reduced pain, and other examinations that support adequate revascularization. Identification of risk factors that affect patency, particularly protective risk factors, were also taken into account. **Results:** From 2009 to 2012, 29 patients with infra-inguinal arterial bypass were collected. The ratio of men to women was 5:1, with a one-year patency rate of 88% in men, and 75% in women, for an overall of 86.2%. The irreversible risk factor affecting patency was male ($p = 0.117$). Modifiable risk factors that decreasing patency level were smoking ($p = 0.042$) and more advanced stage of PAD ($p = 0.067$). Smoking cessation ($p = 0.041$) and the use of drugs after bypass procedure ($p = 0.072$) were known to increase the level of patency.

Conclusion: The one-year patency rate for infra-inguinal artery bypass was 37-89%. Smoking cessation was known to increase the level of patency.