Late Term Complication After Axillo-Bifemoral Bypass: Disruption of Proximal Anastomosis and Pseudoaneurysm

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OBJECTIVE: In this case report, we describe a proximal anastomotic disruption of an axillo-bifemoral bypass graft and the axillary artery pseudoaneurysm.

METHODS: 66 year old male patient who has claudication after 100 m was performed an axillo-bifemoral bypass in our clinic last year. In physical examination he had ankle brachial index 0.5 in left and 0.4 in right side. Bilateral femoral artery flow was determined as negative furthermore there was not flow also in polytetrafluoroethylene (PTFE) graft in doppler examination. Computed Tomography Angiography showed a pseudoaneurysm of axillary artery and the 1/3 proximal side of the axillo-femoral graft was separation in the abdominal side wall without any arterial flow (Figure 1 - 2). The patient was operated under local anesthesia due to severe chronic obstructive pulmonary disease. The pseudoaneurysm was approached by routine axillary artery insicion, proximal - distal artery was klemped and axillary pseudoaneurysm was removed. Later, PTFE-axillary proximal end to side anastomosis was done on axillary artery puncture point. After creating subcutaneous tunel, end to end distal anastomosis was done between old and new PTFE graft at the level of lateral abdominal wall. There was no complication after operation.

RESULTS: Axillofemoral bypass grafting has been widely used for relief of severe lower-limb ischemia in a variety of clinical settings including multiple previous abdominal operations, severe chronic obstructive pulmonary disease. Proximal anastomotic disruption of axillo-bifemoral bypass grafts is a rare but serious complication due to major hemorrhage. However, pseudoaneurysm are a know complication that can appear in the anastomotic side of the graft. Previously described causes of anastomotic disruption and aneurysm include the following: infection, technical errors, tensile strength, trauma, hypertension, clamp applications to the graft, damage to material with manufacturing process and severe mechanical stress. But main reasons that cause disruption and aneurysm can be arm or shoulder hyperabduction motion and lateral flexion of the body increased the distance between the axillary and femoral arteries.

CONCLUSIONS: In conclusion, it should take into consideration that proximal anastomosis disruption and auto-limited pseudoaneurysm formation can occur as a late term complication after axillo-bifemoral bypass surgery. We think that disruption of the anastomosis should always keep in mind by surgeon.

Keywords: Anastomosis, Pseudoaneurysm, Disruption, axillofemoral bypass

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