

Three cases of Successful Interventional Treatment of Acute Upper Extremity Ischemia

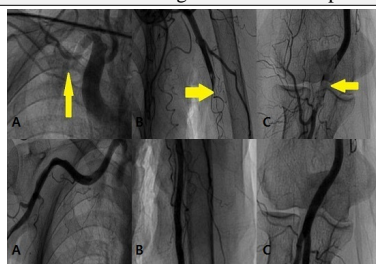
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Acute thromboembolic occlusion is less common in the upper extremities than in the lower extremities. Many patients with thromboembolic occlusion of an extremity have a history of chronic atrial fibrillation and problems with their cardio- or cerebro-vascular system. Although the commonly accepted treatment option for acute upper extremity ischemia is surgical thromboembolectomy, several recent studies reported treating with endovascular interventions. We revascularized three patients with acute thromboembolic occlusion of upper extremities by endovascular interventions. All the patients had atrial fibrillation without anticoagulation therapy and a high risk for surgery because of factors such as old age and chronic diseases. Each patient had an acute thromboembolic occlusion of an artery in an upper extremity: subclavian, axillary, and brachial. The patients underwent endovascular interventions and successful recovery of blood flow and function of the upper extremity was achieved without complications. We suggest that endovascular intervention has the same curative effect as surgery, and is a good alternative for patients with high risks for surgery.

Table. Summary of Clinical Results

| No. | Age/Sex | Atrial Fibrillation | Site of Embolism | Total dose of urokinase (IU) | Catheter Approach | Procedure Method | Complication | Simultaneous Embolic Attack | Follow-up Outcome |
|-----|---------|---------------------|------------------------|------------------------------|-------------------|--------------------------|--------------|-----------------------------|----------------------|
| A | F/87 | + | Right subclavian | 100000 | Right brachial | aspiration balloon | none | none | death due to cancer |
| B | F/86 | + | Left axillary brachial | 100000 | Right femoral | aspiration balloon stent | none | Cerebral infarction | Stent thrombus death |
| C | M/79 | + | Right brachial | 400000 | Right radial | aspiration | none | none | alive |



Primary PCI Using Bioabsorbable Vascular Scaffold for the Treatment of Acute MI: First case in Korea

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Drug-eluting stents (DESs) have reduced restenosis and revascularization rates after percutaneous coronary intervention (PCI) compared with bare-metal stents. Despite these benefits, DESs are associated with increased risk of late thrombotic events. Bioabsorbable vascular scaffolds (BVSs) have been developed to overcome the limitations of DESs. These devices provide short-term scaffolding of the vessel and then dissolve, which should overcome the side effects of DES. The vessel recovers pulsatility and becomes responsive to shear stress and physiological cyclic strain with BVS use. BVSs are currently available in clinical practice, but their safety and feasibility have not been validated for acute myocardial infarction in Korea. We describe a patient with acute myocardial infarction who was safely and successfully treated with PCI using BVS. A 70-year-old man was referred to our hospital for acute chest pain. ECG showed ST-segment elevation in V1-4 precordial leads, coronary angiography (CAG) was performed immediately. CAG revealed total occlusion in middle portion of the LAD. We performed PCI successfully with 3.5x28mm BVS. IVUS was performed after BVS implantation identified good apposition of the scaffold to the vessel wall. After primary PCI, the patient was hemodynamically stable and did not complain of chest pain. The patient was free of symptoms when assessed 7 month later. This case suggests that PCI using BVSs can be used effectively and safely for the treatment of Korean patients with acute myocardial infarction.

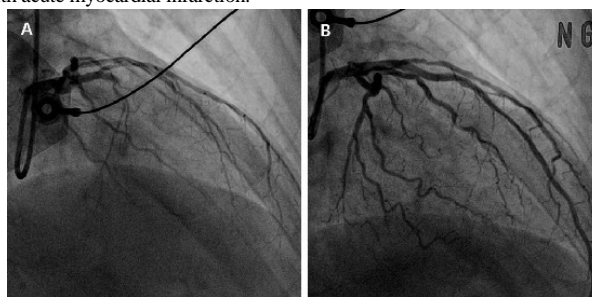


Figure. CAG images. A right anterior oblique view.
(A) The initial CAG revealed a total occlusion with TIMI 0 distal flow in the middle portion of the LAD.
(B) The CAG performed after PCI showed TIMI 3 distal flow in the LAD, which was successfully treated with a BVS.