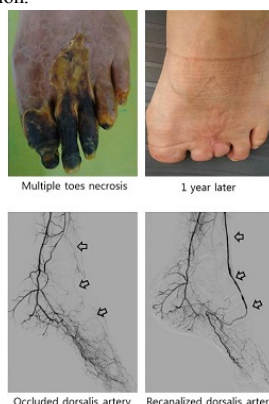


Endovascular Intervention for an Inadvertent Intraarterial Injection-Induced Foot Necrosis

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Inadvertent arterial drug injection is a rare but limb-threatening accident that can lead to devastating disasters, including skin necrosis, gangrene and eventual limb amputation. But the best treatment has not yet established well and most of them was for the acute phase presentation. A 44-year-old woman presented with necrotizing lesion on her left foot. 3 months ago, she had an augmentation mammoplasty at primary clinic. She received IV injection of antibiotics and analgesics on the top of her left foot dorsum. Immediately after the injection, she experienced severe pain followed by swelling, heating sensation, and redness. Foot necrosis has gradually progressed to her 1st to 4th toes. 3 months later, she visited our hospital. The CT angiogram revealed total occlusion of proximal anterior tibial artery. We punctured her left femoral artery antegradely and the angiogram showed diffuse total occlusion of left anterior tibial and dorsalis pedis arteries and scanty visualization of whole metatarsal and digital arteries with abundant corkscrew-like collaterals (Figure). But it was unsuccessful, so we performed pedal-plantar loop technique and recanalize total occlusion retrogradely. The final angiogram revealed regained dorsalis arterial flow. After the procedure, the wound was much improved. She underwent amputation for her 1st to 3rd toes and wound healed eventually. We are reporting a patient who has shown the clinical improvement after balloon angioplasty in chronic phase of foot necrosis secondary to inadvertent intra-arterial injection.



Correlation between high platelet reactivity and periprocedural myonecrosis in patients with ACS

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Background: Growing evidences suggest that platelet are also important mediators of inflammation and play a central role in atherogenesis itself as well as blood clot formation. The purpose of this present study was to evaluate the correlation between high platelet reactivity (HPR) and the extent of coronary atherosclerosis and periprocedural myonecrosis in patients with acute coronary syndrome (ACS) who underwent percutaneous coronary intervention (PCI). **Methods:** A total of 485 patients underwent PCI for ACS was studied. HPR was defined as platelet reactivity units ≥ 230 in point-of-care P2Y₁₂ testing by the VerifyNow assay. **Results:** The incidence of multi-vessel disease (MVD) was higher in patients with HPR than those with no HPR (56.2% vs 45.8%, $p=0.023$). The PRU values progressively increased with number of diseased coronary arteries (1-vessel disease 221.8 ± 86.7 ; 2-vessel disease 239.3 ± 90.1 ; 3-vessel disease 243.4 ± 84.5 ; $p=0.038$ by ANOVA). Multivariate analysis revealed that HPR was independently associated with MVD (Odds ratio 1.50, 95% confidence interval 1.01-2.24, $p=0.047$). Patients with periprocedural myonecrosis showed significantly higher PRU value compared with those without myonecrosis (258.6 ± 94.5 vs. 228.5 ± 85.6 , $p=0.013$). **Conclusions:** HPR is associated with MVD and periprocedural myonecrosis in patients with ACS and PCI. Thus, platelet reactivity after clopidogrel might be associated with not only blood clot formation but also increased coronary atherosclerotic burden.

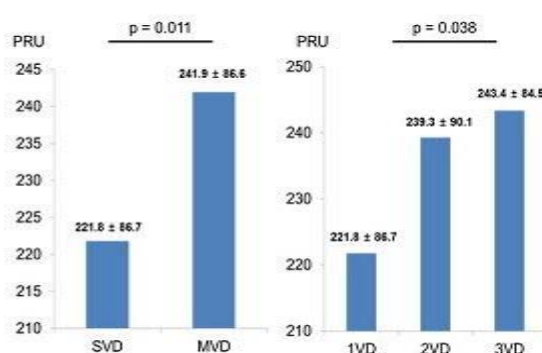


Fig. 1. Results of platelet reactivity unit.

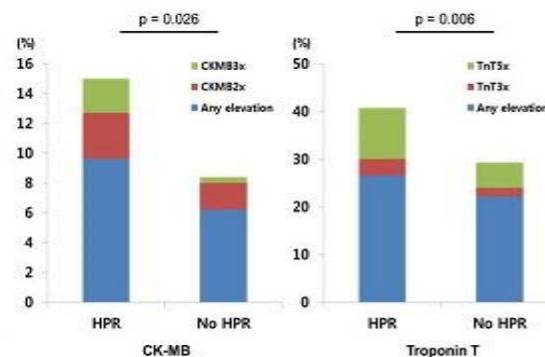


Fig. 2. Incidence of periprocedural myonecrosis according to platelet reactivity.