A case of endovascular therapy of infrapopliteal arterial disease using GP IIb/IIIa inhibitor and thrombolysis in a patient with acute limb ischemia

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Disclosure

Speaker name:

I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

I do not have any potential conflict of interest
Introduction

Glycoprotein IIb/IIIa (GP IIb/IIIa) antagonists are applied effectively and safely during percutaneous coronary interventions (PCI). However, the role of GP IIb/IIIa inhibitor remains unclear in the endovascular therapy of acute limb ischemia.
Introduction

• Several studies show protection of thrombus without increasing bleeding risk using combination of GPIIb/IIIa inhibitor and Thrombolytic agents during peripheral arterial interventions.

  • The APART (The Antibodies of Platelet Receptors and Reteplase for Thrombolysis) Study compared the use of reteplase and abciximab to urokinase and abciximab. *Radiology* 2006;239(3):892–900.
  
  • In a larger series by Schweizer et al, patients undergoing intraarterial thrombolysis were given either recombinant tissue plasminogen activator (rt-PA) and aspirin, or rt-PA and abciximab. *Angiology* 2000;51(11):913–923.
  
  • The economic implications of the addition of GP IIb/IIIa inhibitors to peripheral arterial lysis were examined in the PROMPT (Platelet Receptor Antibodies in Order to Manage Peripheral Artery Thrombosis) Trial. *Pharmacoeconomics* 2002;20(3):203–213.
CASE

• 69/Male

• Chief complaint: Lt. foot pain and color change

• Past History: Hypertension, Pulmonary TB on medication

• He already got an endovascular therapy in other hospital but failed. His foot was aggravated and infected. Therefore, we decided to perform the endovacular therapy.
Before Procedure
Peripheral Artery Angiography
ATA Balloon Angioplasty

Amphirion 2.0/2.5 250 mm
8 atm for 3 min.
ATA after ballooning
Trial for Pedal-Plantar Loop Technique

Using CXI and Cosair with 0.014 Regalia and Commend ES
Balloon angioplasty of PTA and Penoneal artery
After GPIIb/IIa and tPA
The Combination of GP IIb/IIIa inhibitor and tPA

• t-PA
  – Never use IV in ALI for t-PA
  – Intraarterial delivery is successful without hemorrhagic complication
  – Regimen: 1.0 mg/hr with subtherapeutic heparin dosing 300-500 U/hr
  – No greater than 40 mg for catheter-direct therapy

• Tirofiban
  – Initial bolus of 10 mg/kg over 3 minutes
  – Infusion of 0.15 mg/kg/ min for 18 to 24 hours.
Conclusion

• The combination of GP IIb/IIIa inhibitor and thrombolytic agent might be an option during endovascular therapy of ALI with abundant thrombi and no reflow.
Thanks for Your Attention!
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