

**TCTAP 2016**

**Endovascular Session III**

**Armageddon for Perfection II – Ilio-Femoral**

# **Overcome the Calcified Plaque Using Endovascular Therapy**

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**Sapporo, Japan**

# **Disclosure Statement**

## **Dr. Kazushi Urasawa**

**Consulting for**

**Cordis**

**Boston Scientific**

**Terumo**

**Asahi Intecc**

**Kaneka**

**Tokai Medical Products**

**Future Medical Devices**

**Goodman**

**Medikit**

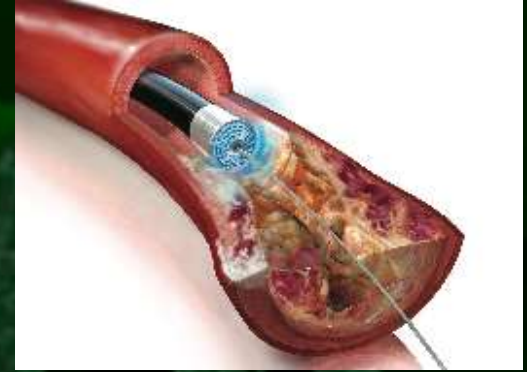
# EVT devices for calcified lesions



**Crosser (Bard)**



**Diamondback (CSI)**



**Turbo Elite (DVx)**



**Turbohawk (Medtronic)**



**JetStream (Boston)**



**Phoenix  
Atherectomy System**

Crosser system became available in Japan since Apr. 2014, as a **CTO crossing device**.

Crosser application for the purpose of debulking is still **off-label use!**

**CROSSER**<sup>®</sup>  
CTO Recanalization System

**Crosser Generator**

**Flowmate Injector**



**Crosser catheter**

# New technique 1

## Crossbow

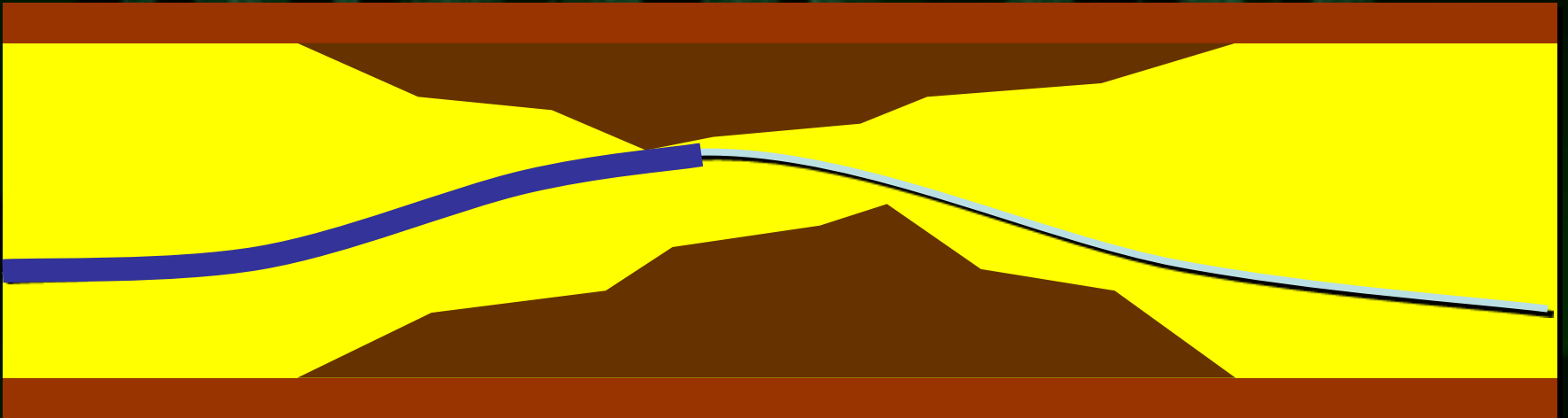
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**CROSS**sor<sup>®</sup> supported  
by **bended 0.014 wire**

# Technical tips

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## Guidewire bias for directional ablation

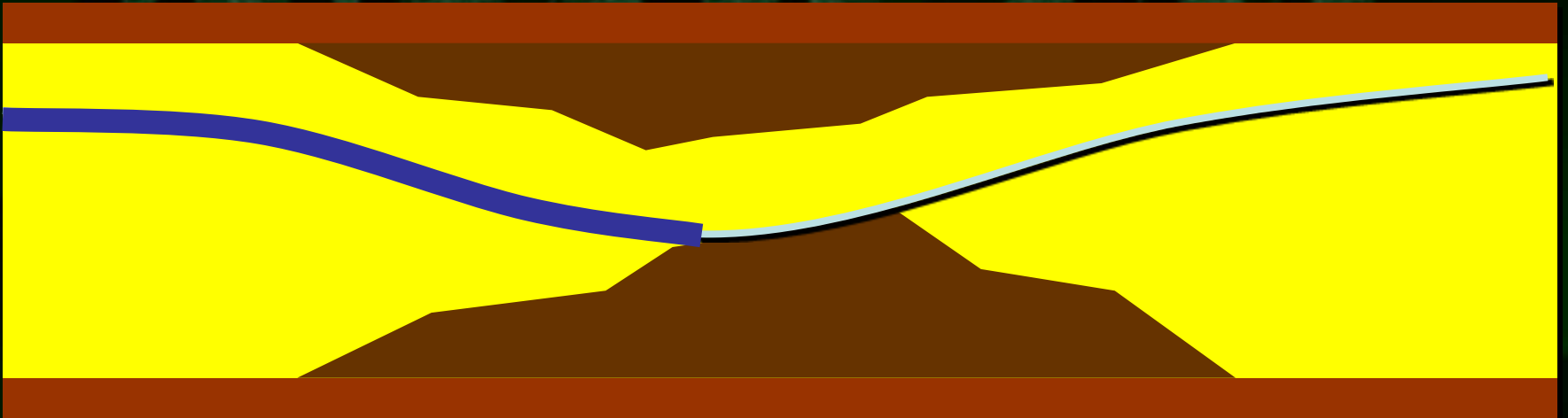


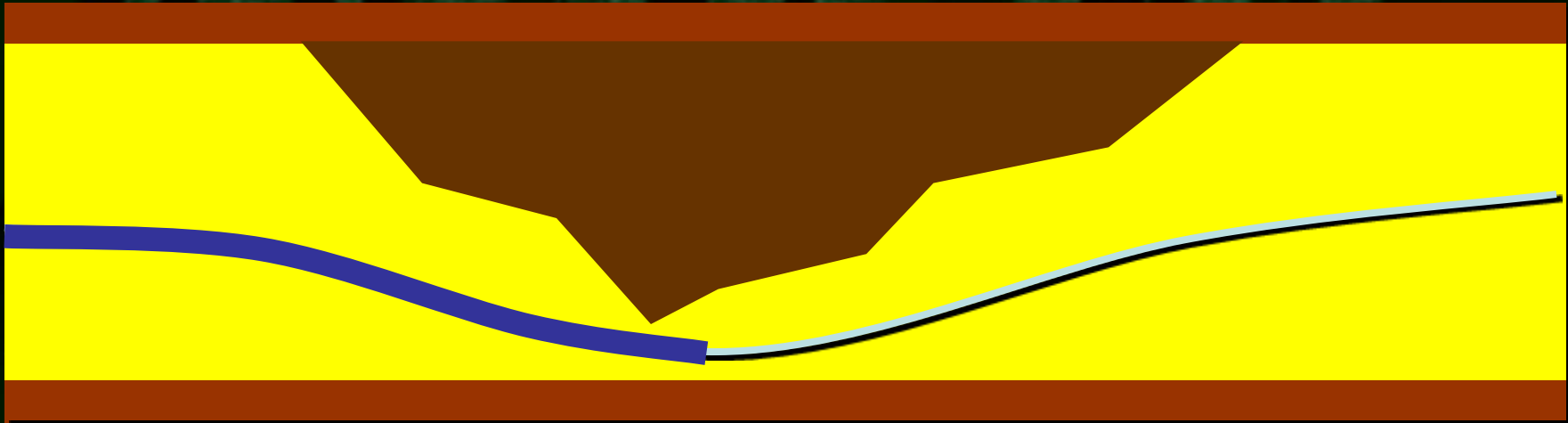


# Technical tips

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## Guidewire bias for directional ablation



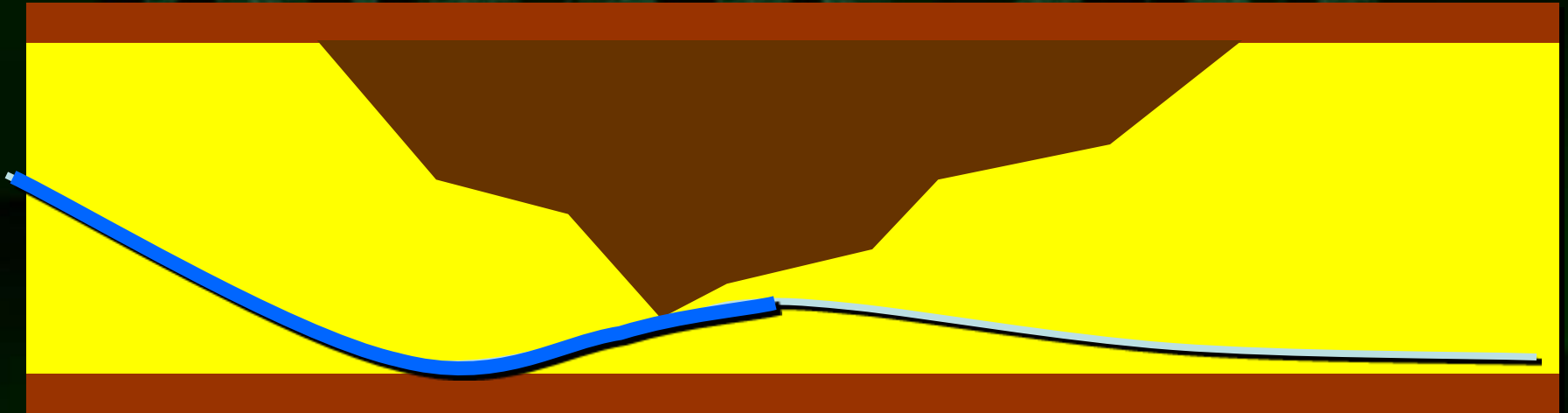




# Technical tips

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Double bended guidewire greatly reduces the whip motion of the system



# Crossbow case 1

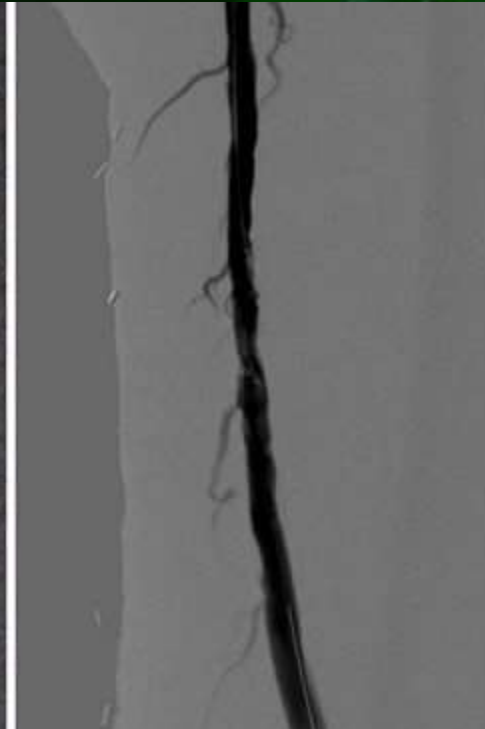
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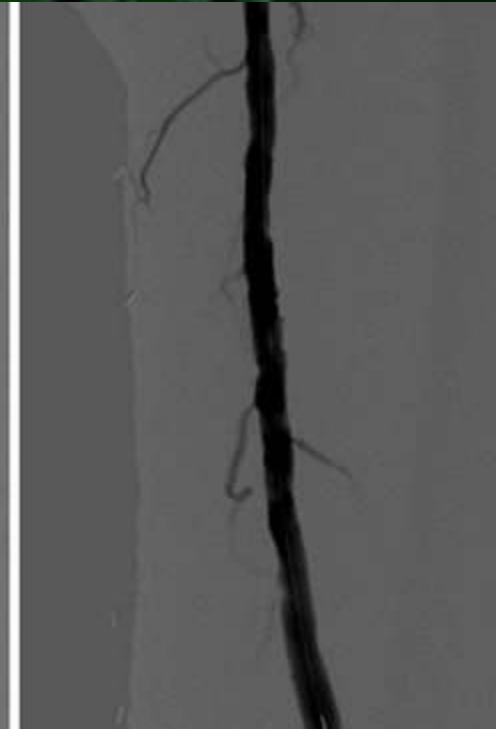
Control angio



Crossbow



After Crossbow



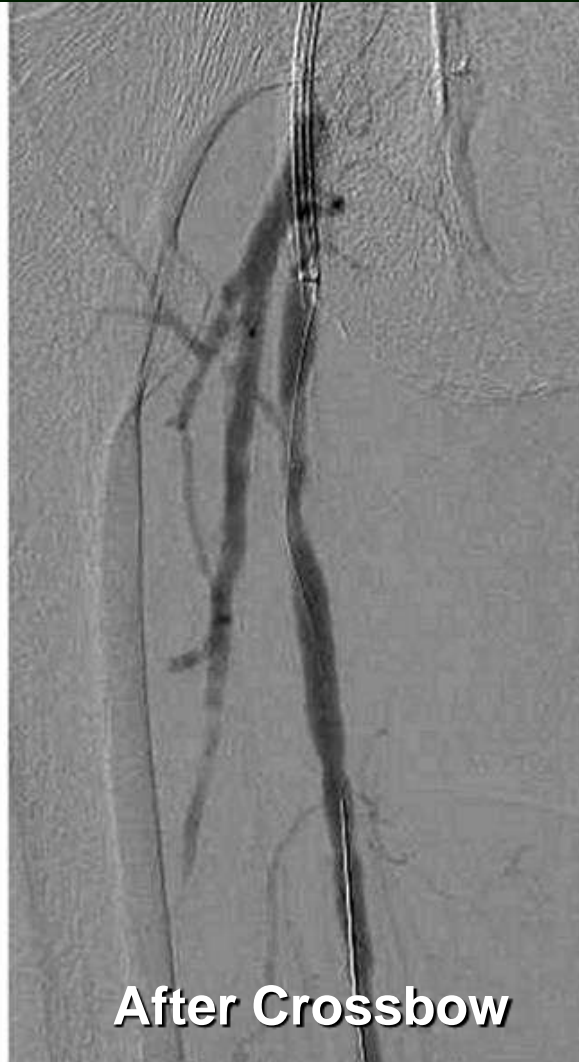
After POBA

# Crossbow case 2

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Control angio



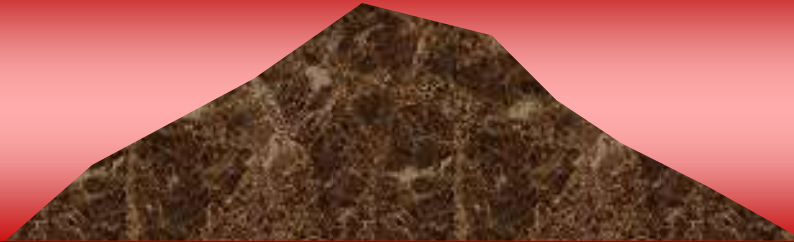
After Crossbow



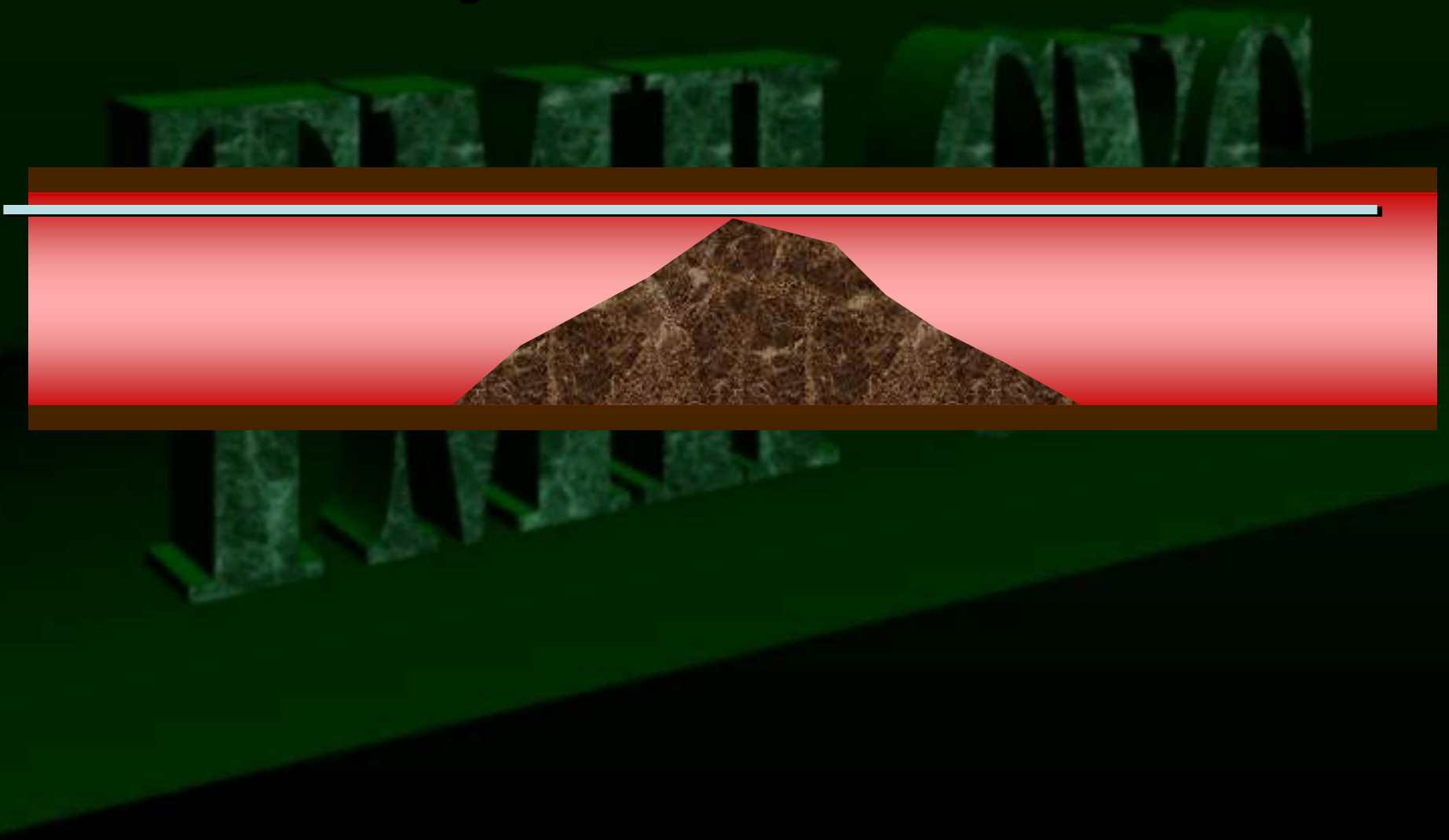
After POBA

CO<sub>2</sub> angiography

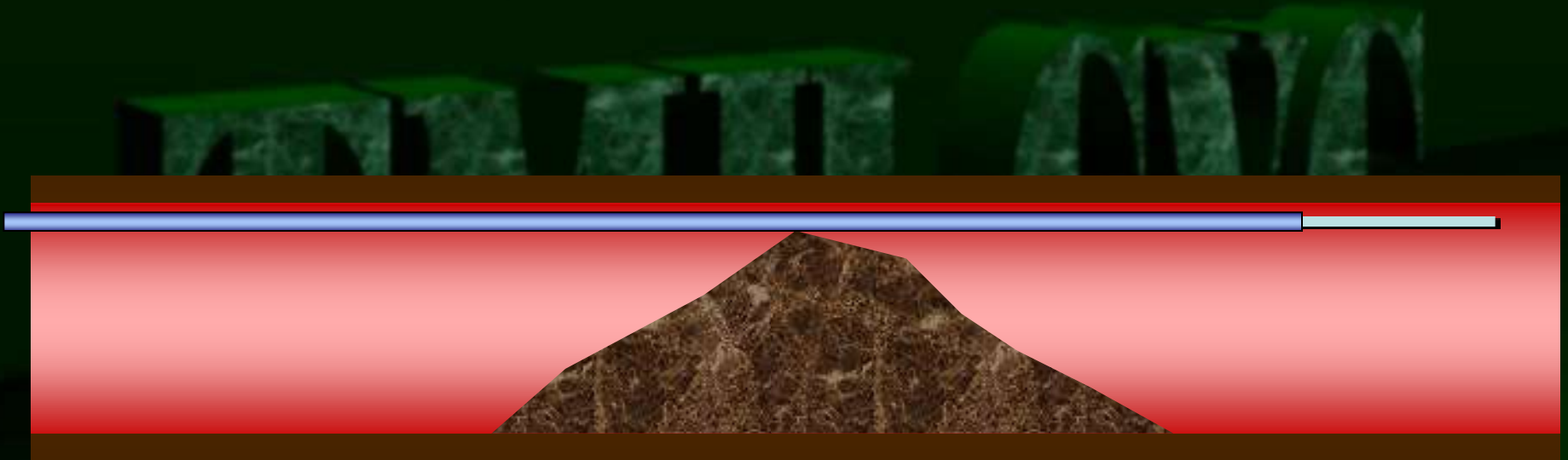
# How to perform Crossbow technique



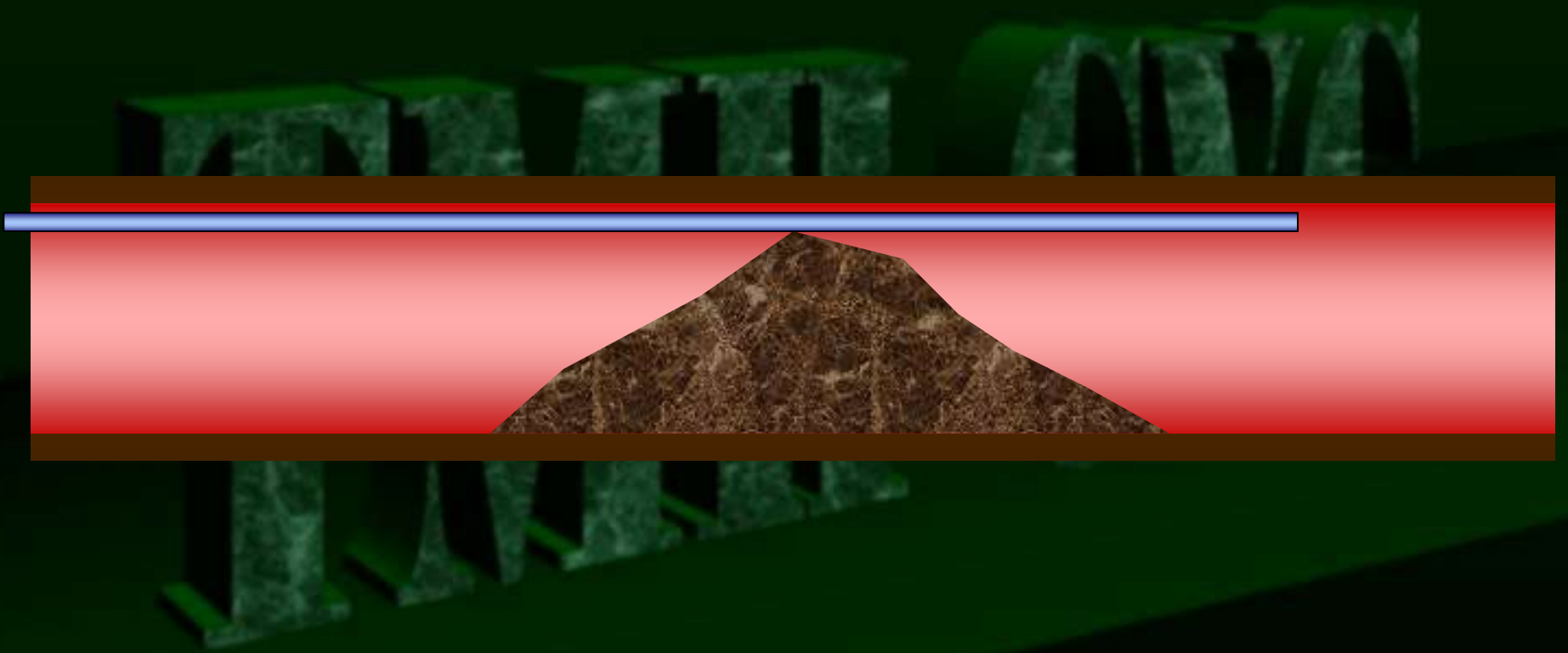
# Advance a soft guidewire beyond the lesion



# Advance a microcatheter beyond the lesion

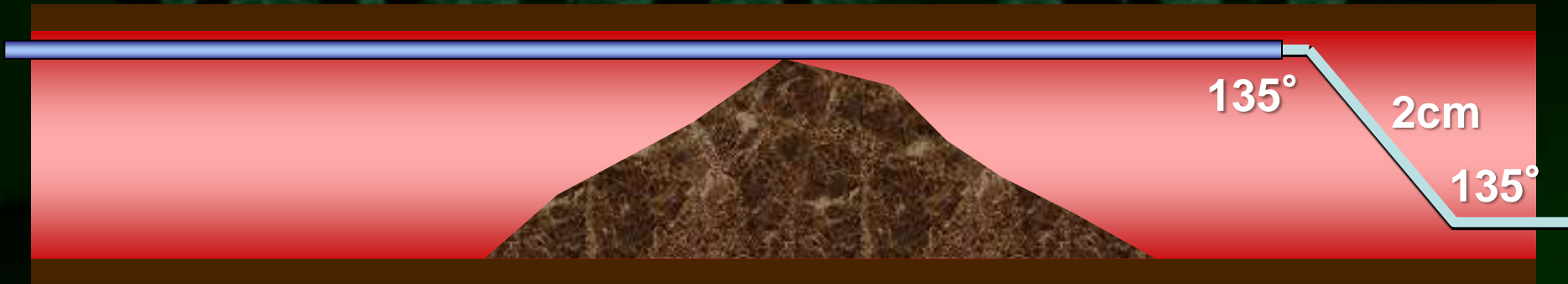


# Remove the guidewire





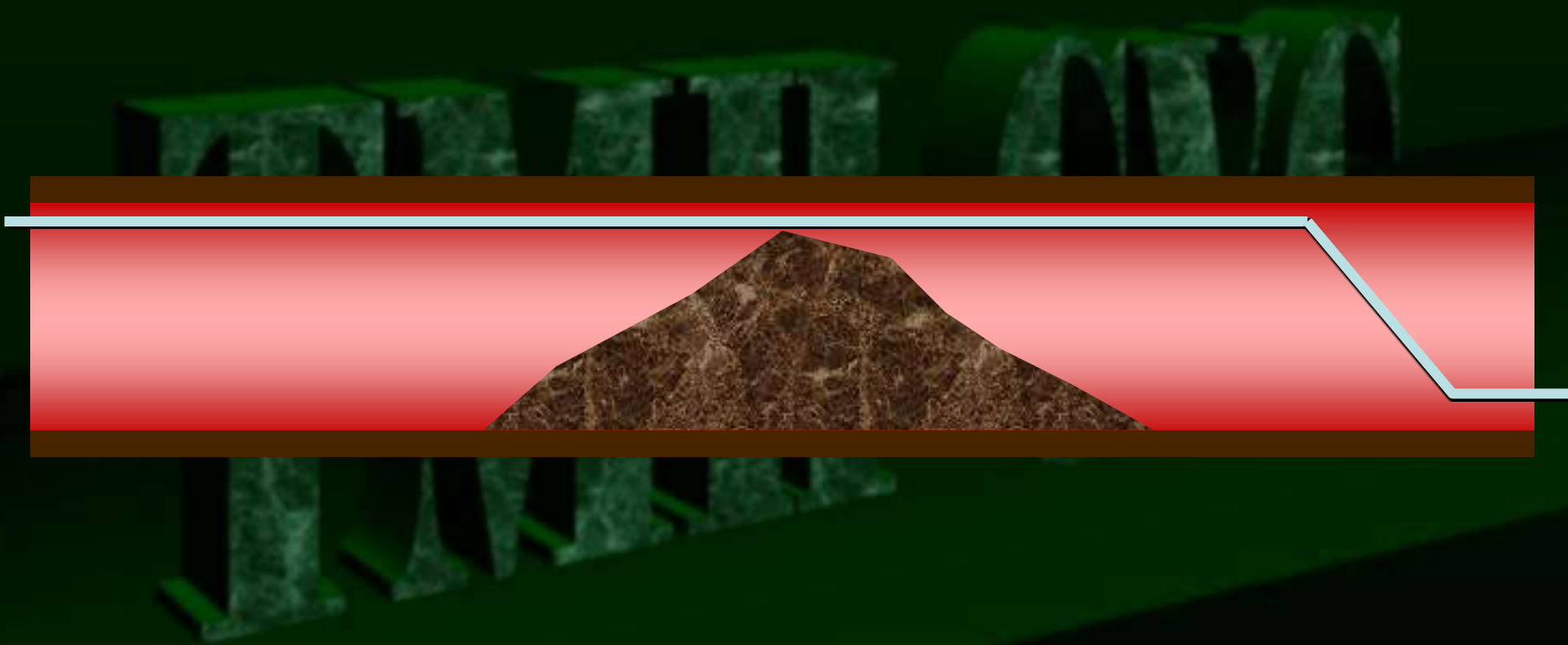
# Advance a double-bended guidewire through microcatheter



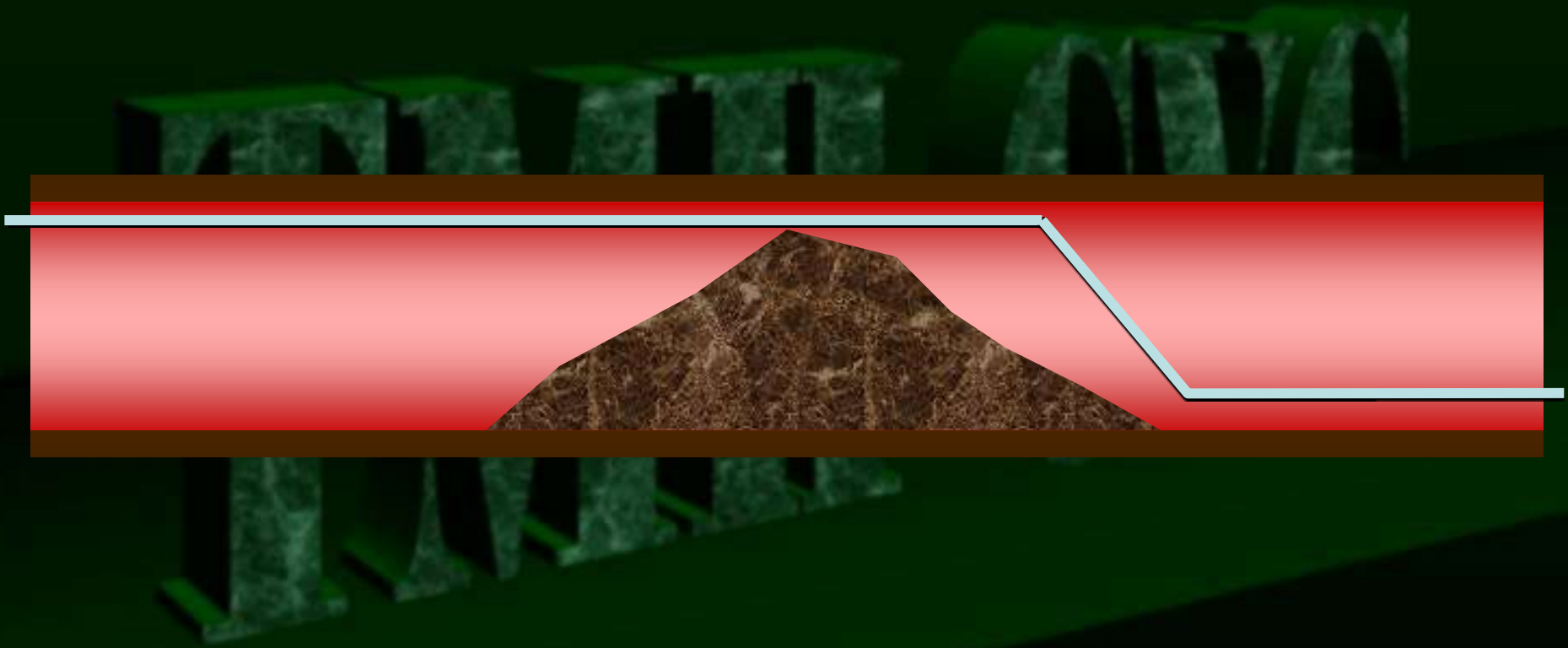
Naveed4 15g

A specialized guidewire for Crossbow technique will be released soon

# Remove the microcatheter

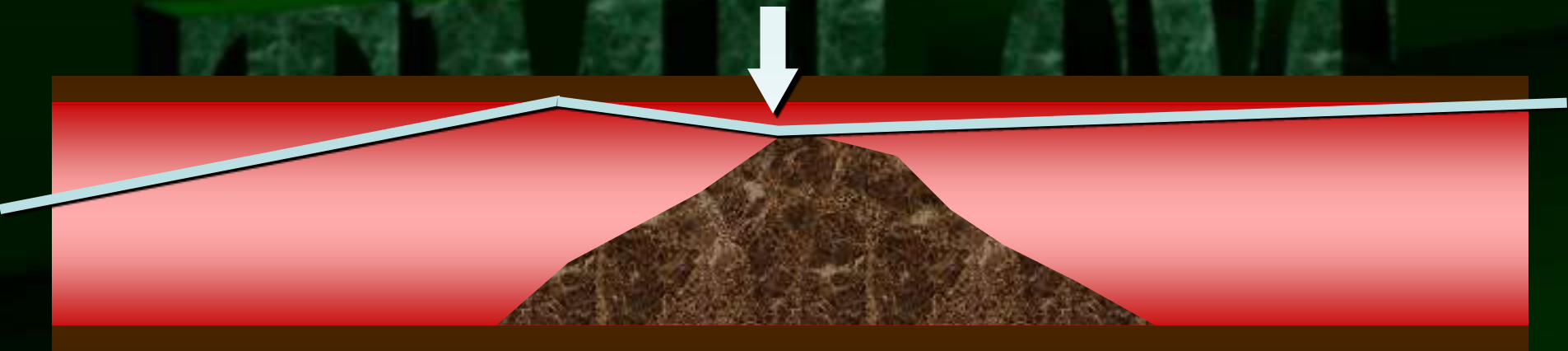


# Withdraw the guidewire

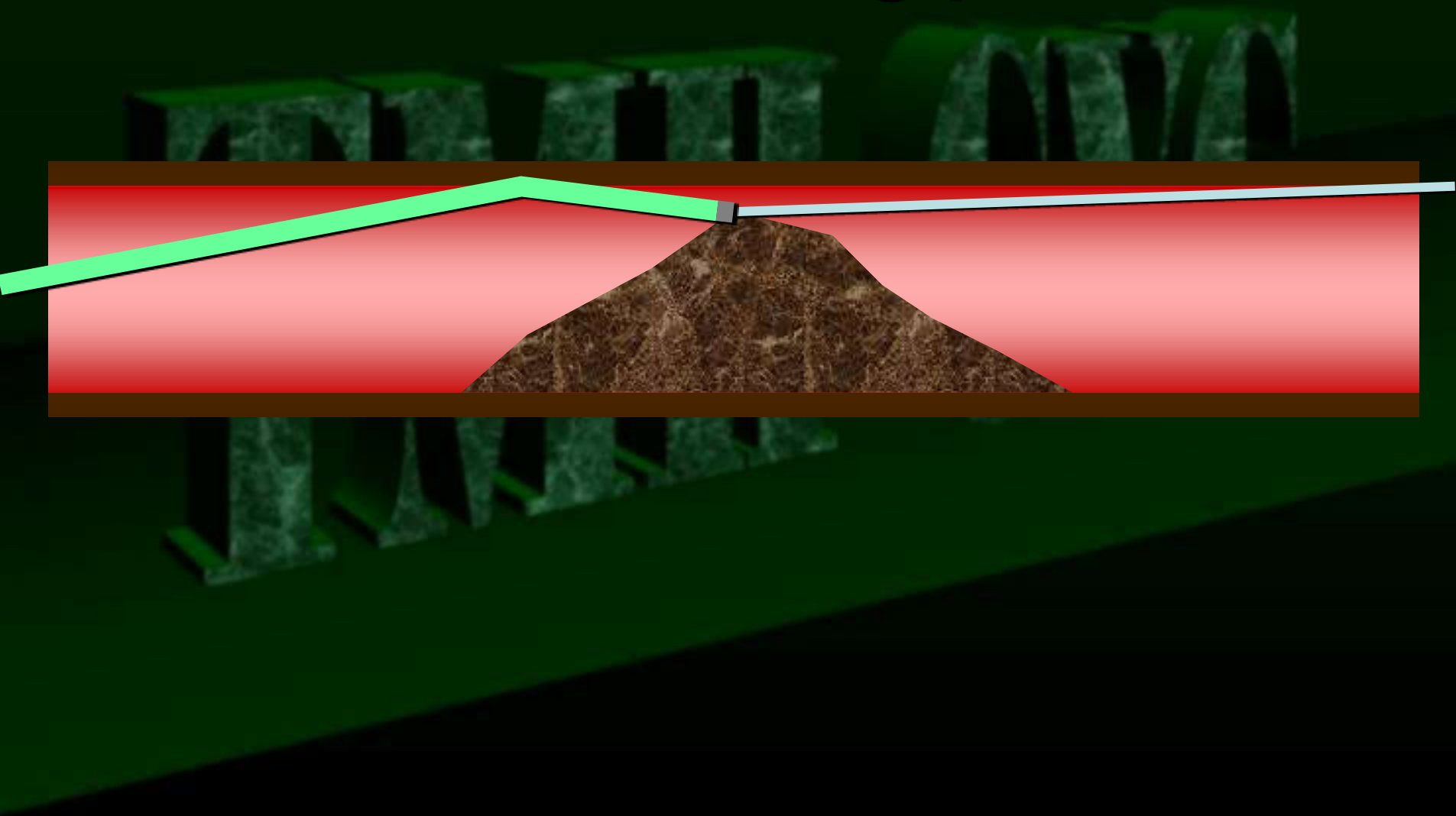


# Withdraw the guidewire

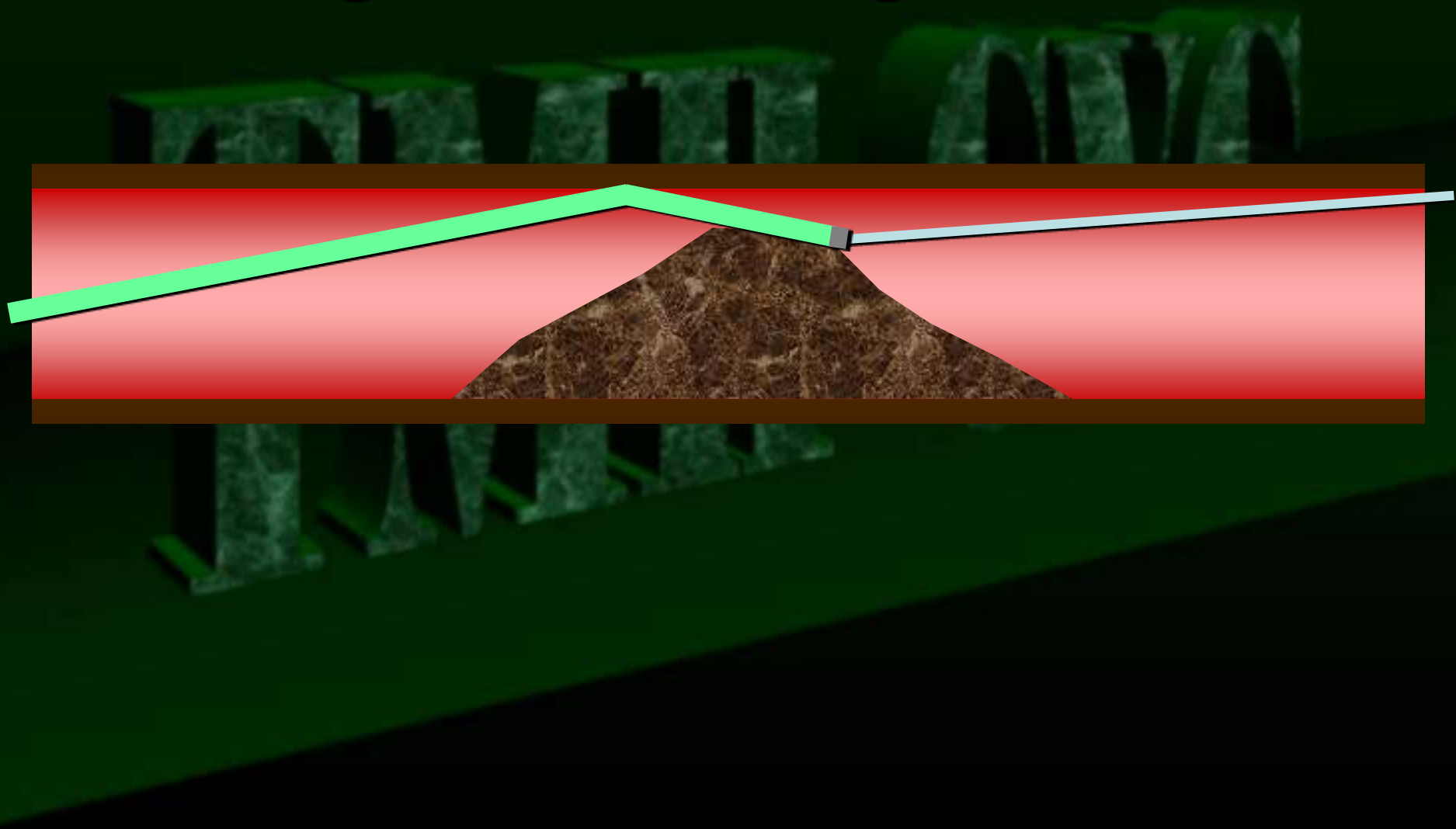
Distal bending point



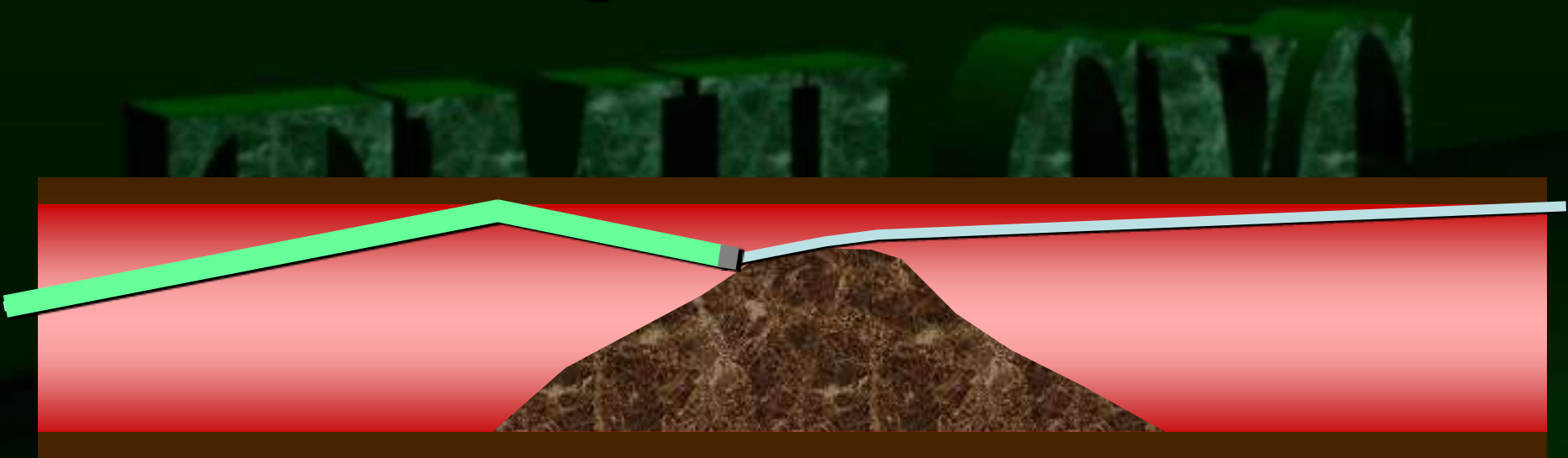
# Advance Crosser to the distal bending point



# Advance Crosser and guidewire together

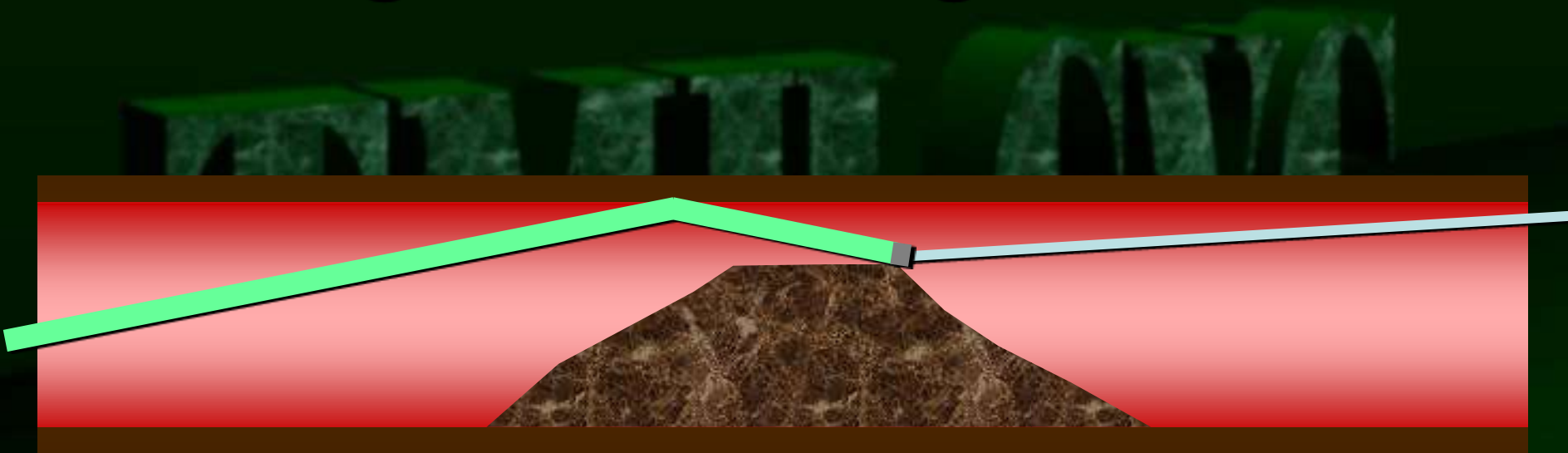


# Withdraw Crosser and guidewire

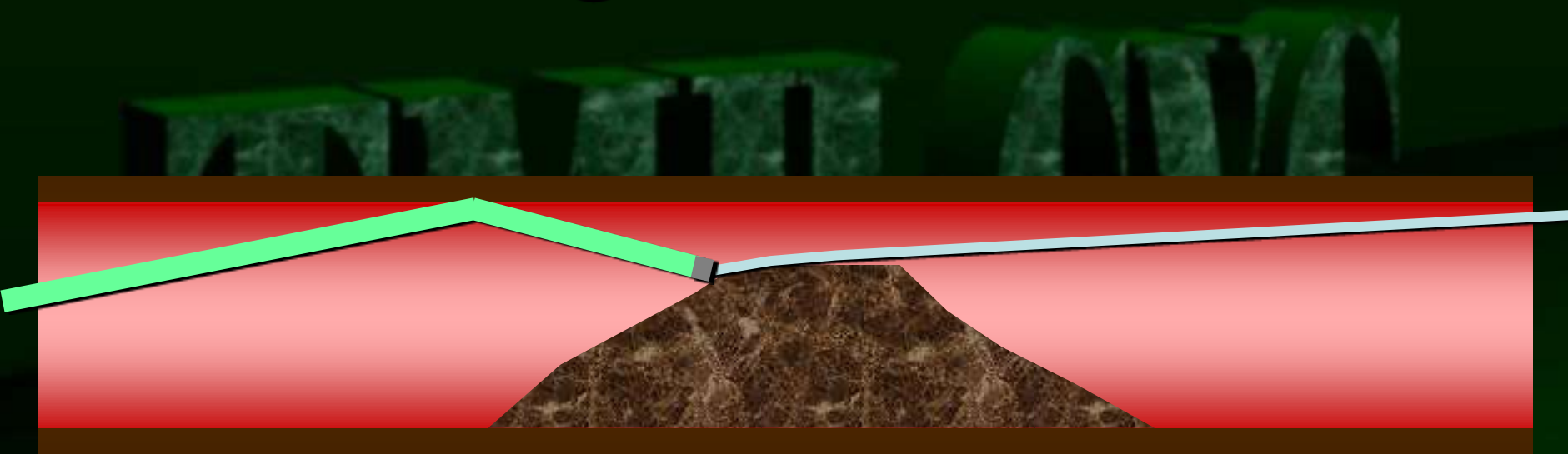




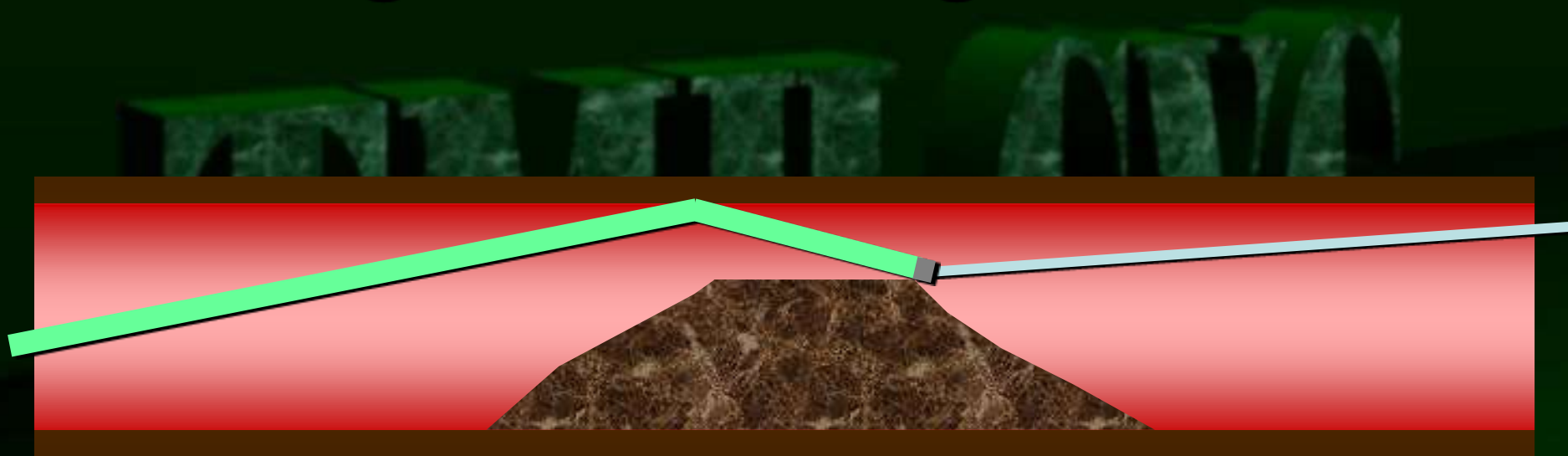
# Advance Crosser and guidewire together



# Withdraw Crosser and guidewire



# Advance Crosser and guidewire together

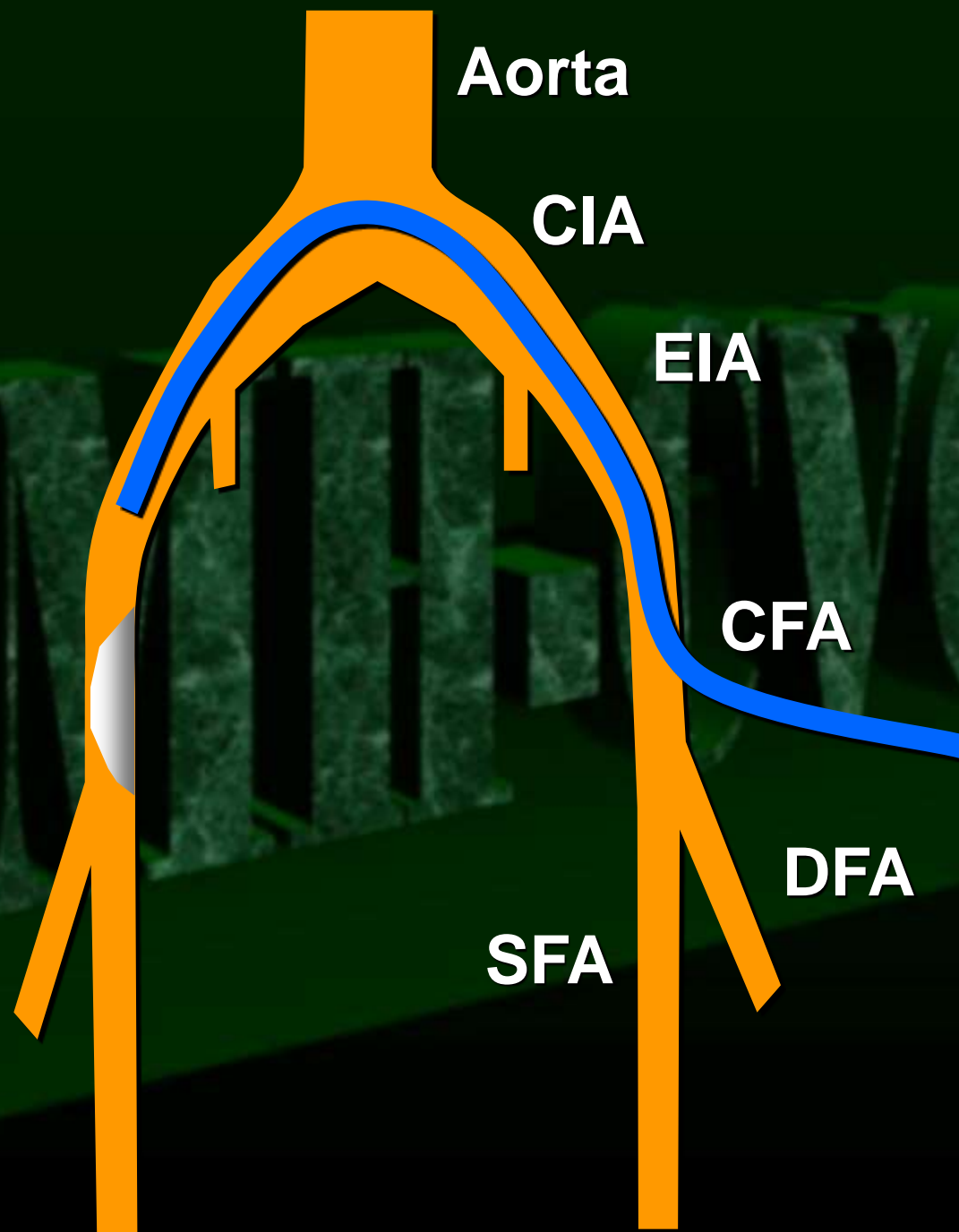


# **New technique 2**

# **Rambo technique**

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## **Naked CROSSBOW**



Aorta

CIA

EIA

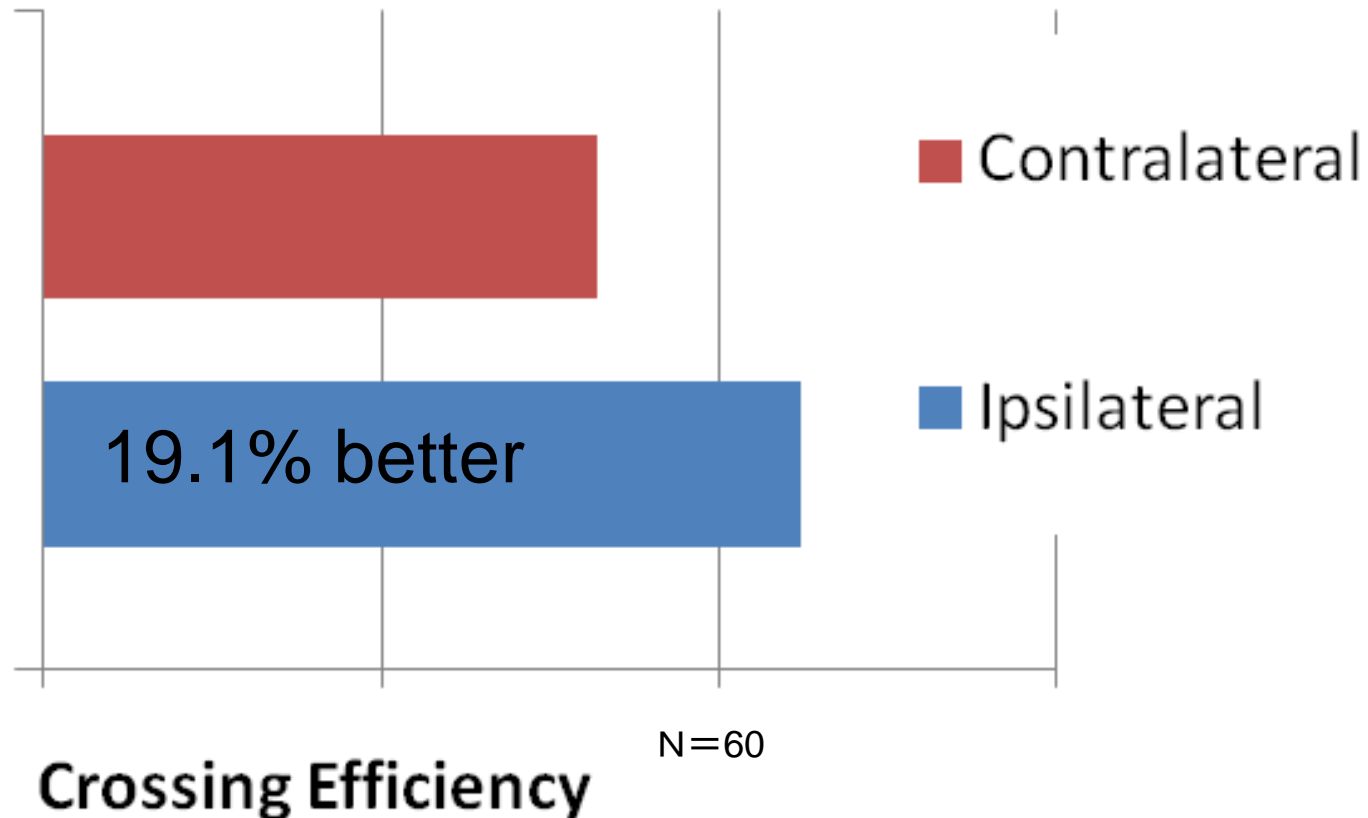
CFA

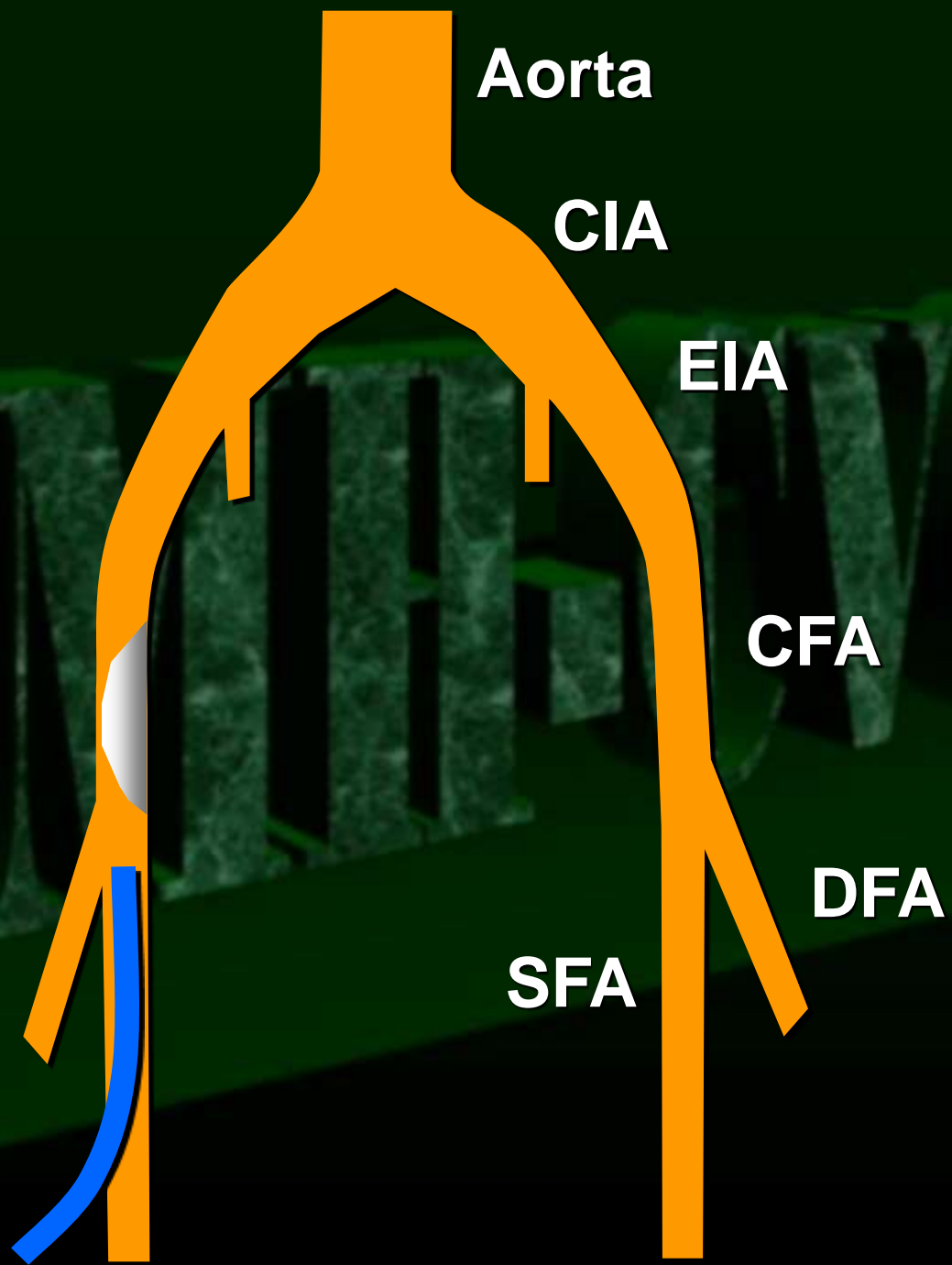
DFA

SFA

# Contralateral vs. Ipsilateral

## CROSSER<sup>®</sup> Catheter 14S









**Naked CROSSBOW**



# Rambo Technique



















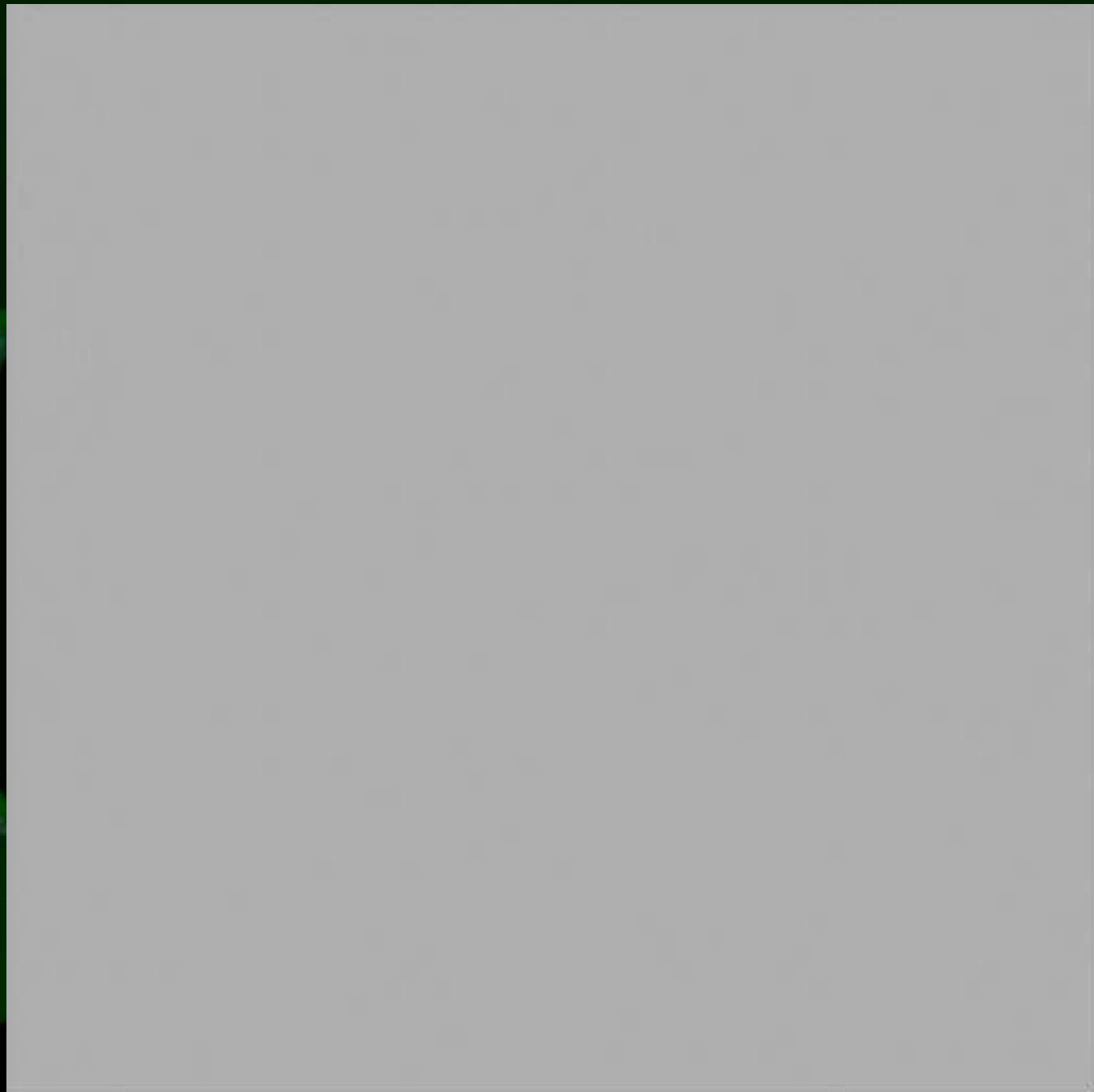




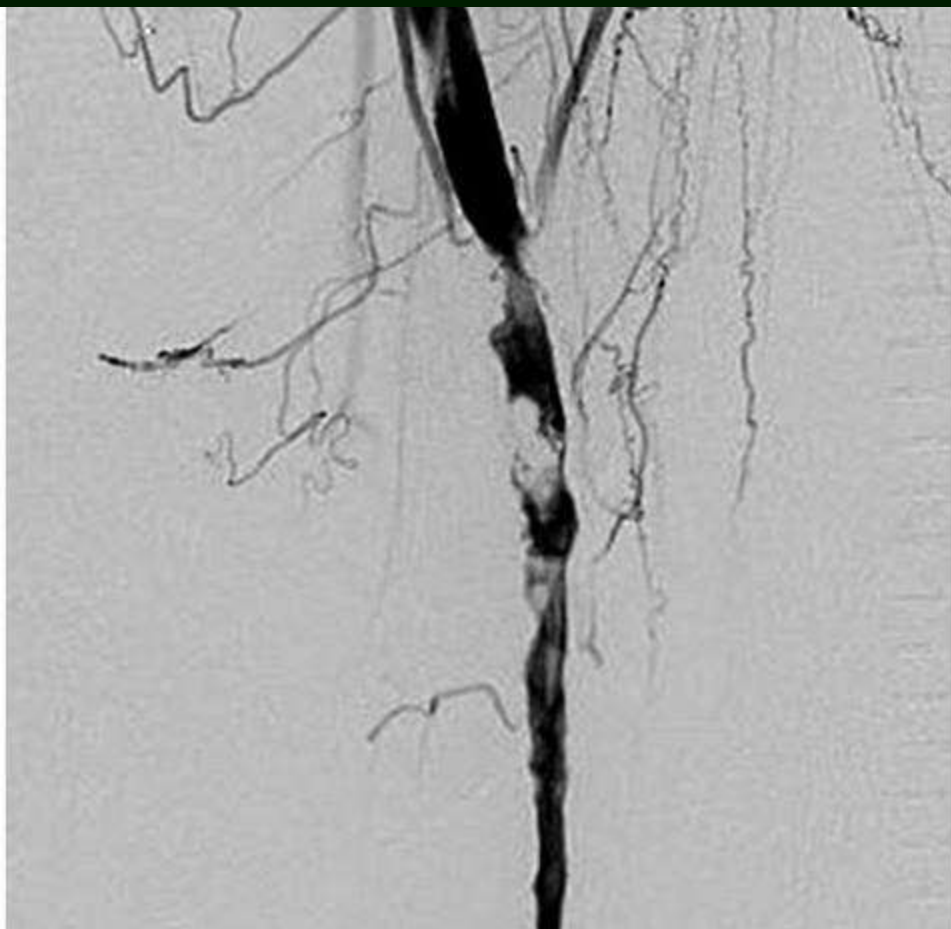


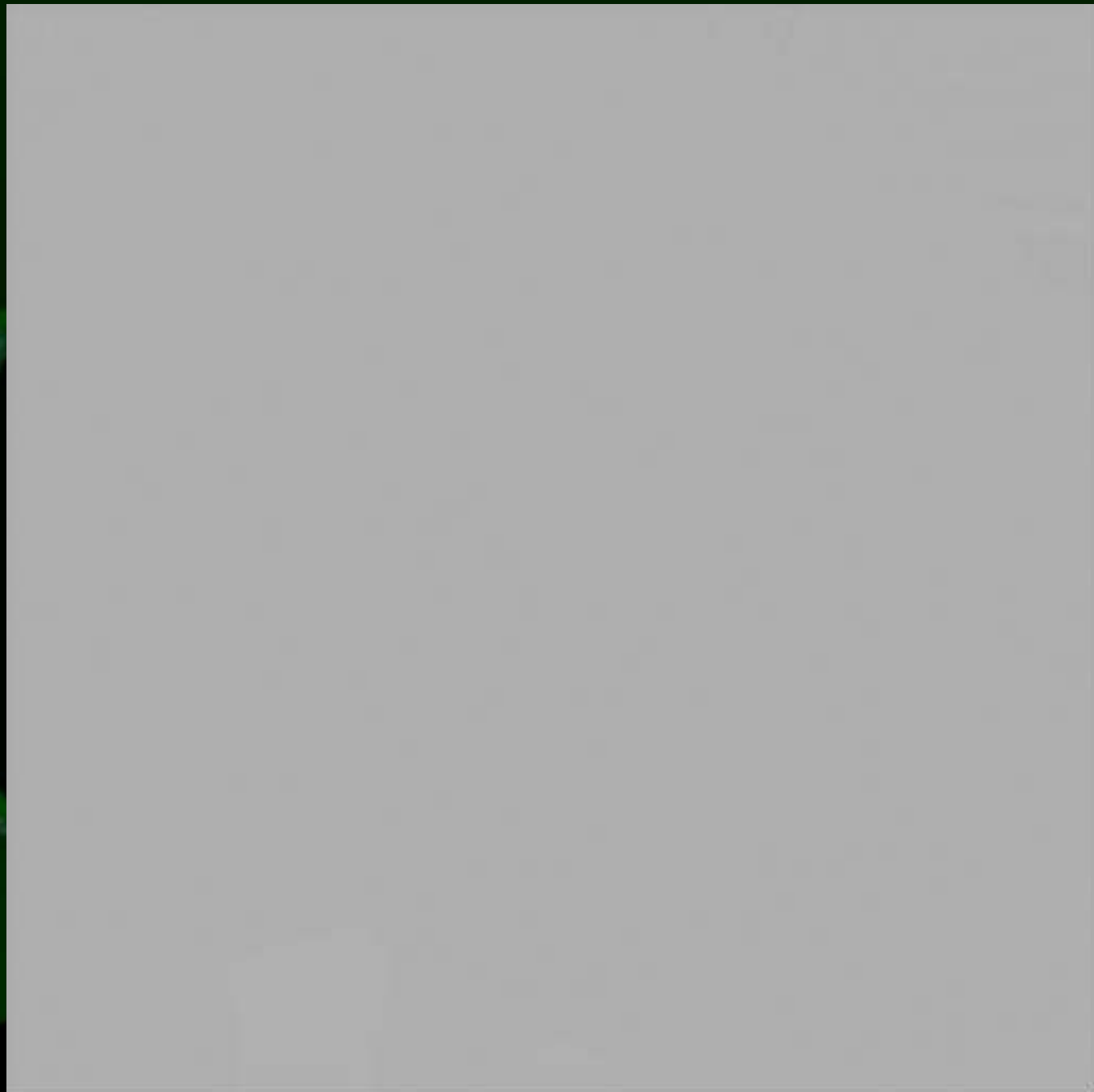




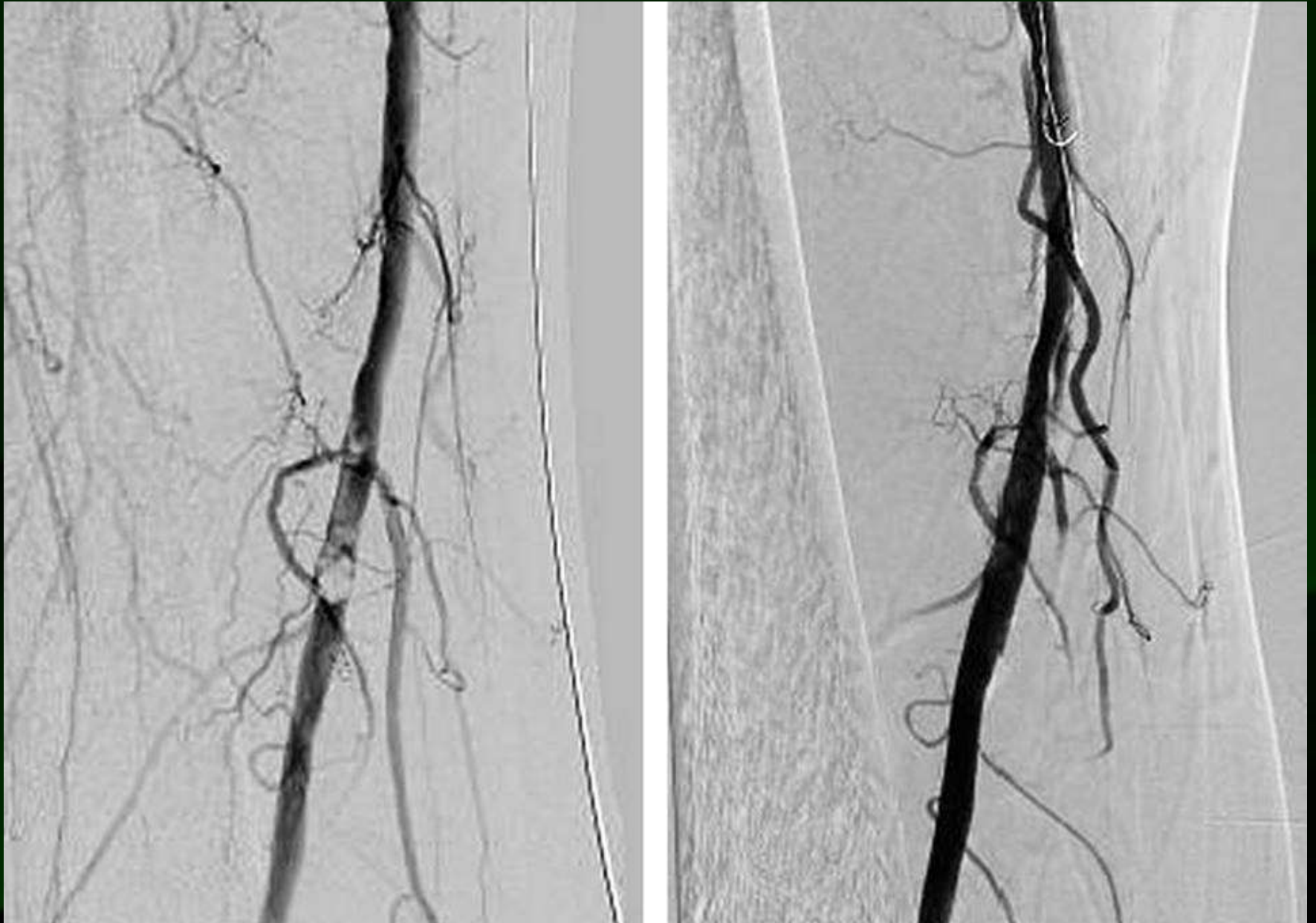








## Another case treated by Rambo Technique



# Summary

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**Crosser® can improve initial outcome of the EVT for severely calcified lesions.**

**CROSSBOW and Rambo techniques are very useful to debulk eccentric calcified lesions. Of cause, at your own risk.**

