# Thrombectomy devices an essential component for successful endovascular therapy

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#### Disclosure Statement of Financial Interest

Within the past 12 months, I or my spouse/partner have had a financial interest/arrangement or affiliation with the organization(s) listed below.

#### Affiliation/Financial Relationship Company

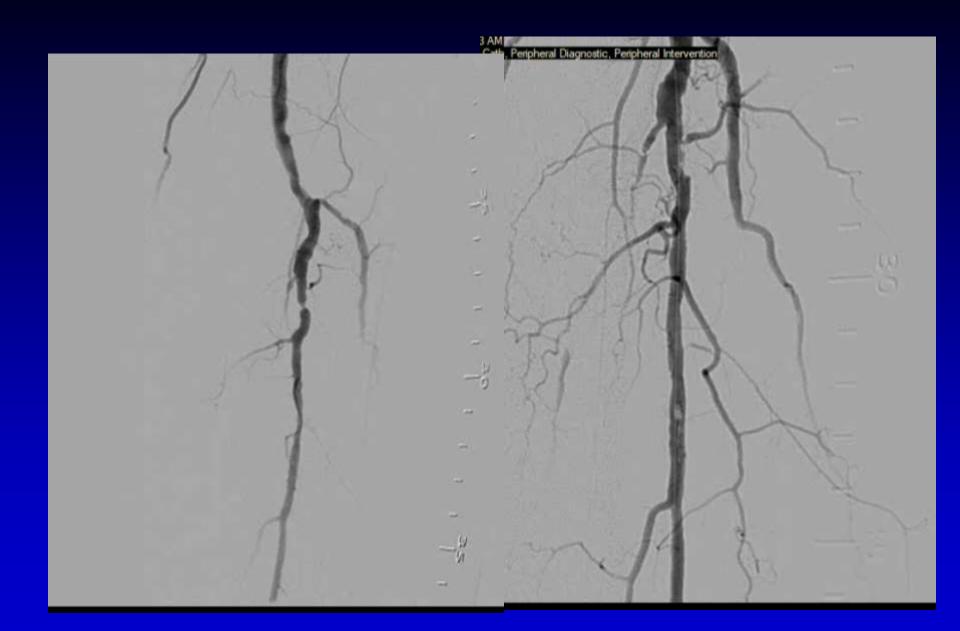
- Grant/Research Support
- Consulting (non-compensated)
- Major Stock Shareholder/Equity

- Royalty Income
- Ownership/Founder
- Intellectual Property Rights
- Other Financial Benefit

- Abbott, Covidien/Medtronic
- Covidien/Medtronic, Boston Scientific, Abbott
- Arsenal, Primacea, TissueGen, CV Ingenuity, Spirox, Scion Cardiovascular, Syntervention, Essential Medical
- None
- Innovation Vascular Partners, Consulting
- None
- None

#### Arterial debris

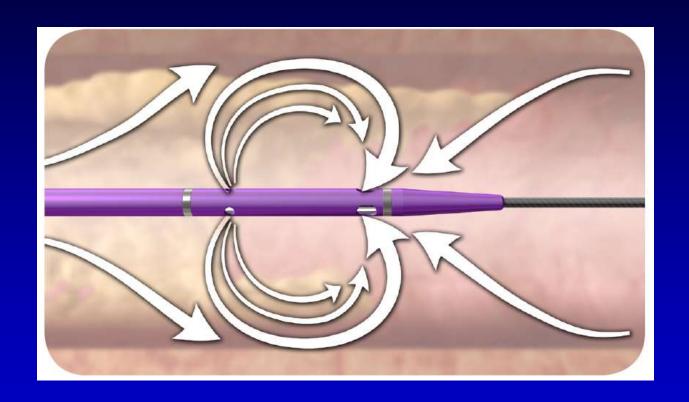
- Includes lesion debris during intervention
- In-situ thrombosis
- Athero-sclerotic emboli
- Remote debris/thrombus





- Multiple devices are available for therapy
- Each attempts to retrieve debris/emboli
- Each has pros and cons
- All in any one way is mandatory to have on the shelf

# AngioJet



### Angiojet

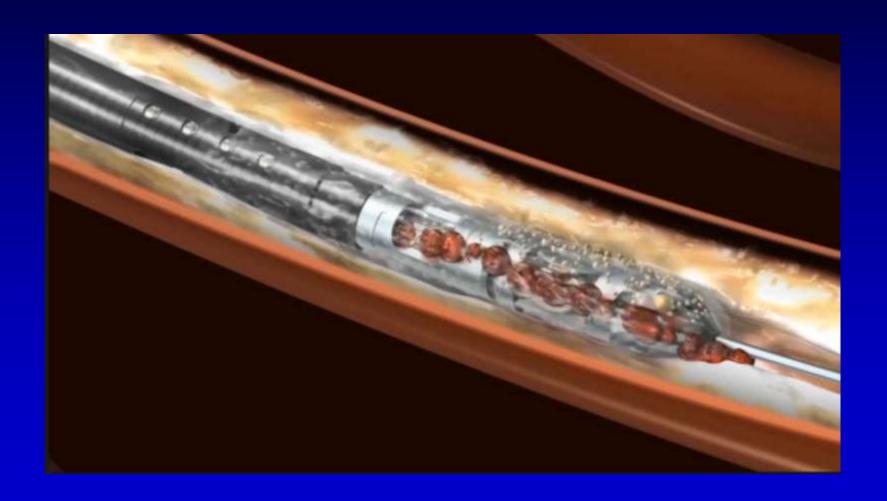
- 947 vessels treated 410 patients
- Pearl registry limb ischemia 89% limb salvage, 56% treated single session 86% 2 of less sessions, 58% in less than 6 hours
- Pearl DVT 371 patients, 1295 vessels
- 97% showed improvement, 3% unchanged
- 34% single session, 75% in 24 hours
- Power pulse used less TPA

### Rotarex

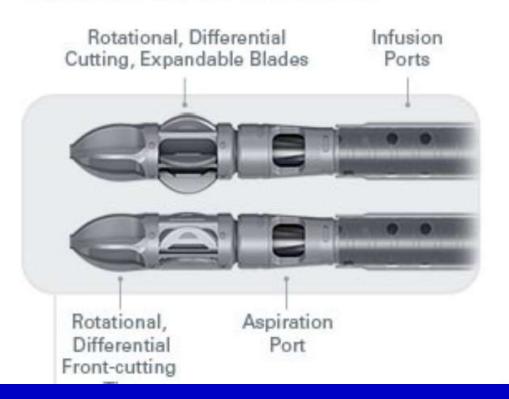


- Small series Lichtenber M, et al. Cardiovasc Interv and Therapy 2012
- 22 pts fem-pop bypassacute/subacute occlusions
  - Success 15/22, technical success 18/22
- 6-8-10 Fr systems
- Larger series Leipzig group
- 525 patients acute (40 subacute, 60% acute)
- LL 16 cm
- PMT solely 27%, +PTA 39%, +stenting 29%, +lytic 13%
- Technical success 97%, MAE 6.9%

### Jetstream



#### **Catheter and Control Pod**





Thrombus<sup>4</sup>

#### Procedures

**Procedure time:** 

 $73.4 \pm 37.5 \, \text{min}$ 

Total Jetstream run

 $4.7 \pm 3.5 \text{ min}$ 

time:

**Number of Passes** 

**Blades Down:** 

Blades Up:

 $2.0 \pm 1.5$ 

 $1.8 \pm 1.4$ 

- 98.3% procedural success (≤30% residual diameter stenosis postprocedure)
- 84 patients (35%) received adjunctive stents
  - Stent placement performed at operator's discretion
- Embolic protection used in 22.4% of cases

Post-treatment stenosis estimate, mean ± SD	Overall (N=258 lesions)	Non-Stent (N=165 lesions)	Stent (N=93 lesions)
Post-Jetstream	44.4% ± 20.0%	38.5% ± 16.2%	54.8% ± 22.0%
Post Adjunctive Treatment	9.8% ± 11.4%	11.6% ± 11.7%	$6.6\% \pm 10.2\%$

## Indigo



- PRISM Saxon et al 2017 JVIR
- 79 pts, ATK77%, BTK23%
- Technical success 87%, overall 96%

#### Essential tools

- Regardless of the technology
- Thrombosis and emboli occur
- Not having these devices (one or more) seems shortsighted for these invariably confronted cases
- Need remains critical and essential for any lab undertaking simple or complex endovascular interventions