

#### Treatment of Acute Venous Femoro-Iliac Thrombosis:

#### Change the Paradigm?

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# Deep Vein Thrombosis

- Third commonest cardiovascular pathology in UK
- Each year 1 in 1,000 people develop a new DVT
- Rising incidence: ageing population and increased exposure to risk factors

### Chronic Venous Hypertension

Valvular dysfunction



Venous reflux



Venous obstruction

## Post-Thrombotic Syndrome (PTS)

- Swollen heavy, painful leg
- Venous claudication
- Chronic skin changes
- Venous ulceration



## Impact of PTS

### Reduced quality of life

- Poorer QoL than arthritis, chronic lung disease, diabetes
- Severe PTS = QoL comparable with angina, cancer, congestive heart failure

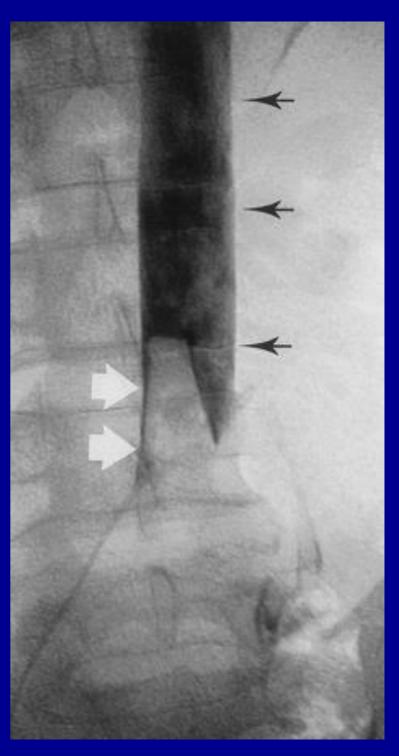
#### Costs

- Time away from work
- Chronic care for PTS in UK estimated at £128 million per year



### Ilio-Femoral DVT

- 80% of symptomatic DVTs
- 52% incidence of PTS within 2 years, despite optimal medical treatment
- Of these:
  - 43% moderate or severe PTS
  - 10% have leg ulcer



### **Current Standard of Care**



Grade 1A evidence



### Current Standard of Care





CET

#### Proximal deep vein thrombosis or pulmonary embolism

1.2.9 Do not offer elastic graduated compression stockings to prevent post-thrombotic syndrome or VTE recurrence after a proximal DVT. This recommendation does not cover the use of elastic stockings for the management of leg symptoms after DVT. [new 2015]

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> Venous thromboembolic diseases: diagnosis, management and thrombophilia testing



# Early Thrombus Removal

- Rapidly reduce the clot burden and associated inflammatory response
- Preserve venous valve function and prevent stenotic lesion
- Diagnose underlying structural cause for IF DVT (May-Thurner syndrome)

# History & Development









## Rationale for Use

**Prevention of PTS** 

Venous ischaemia





London

# Contra-Indications

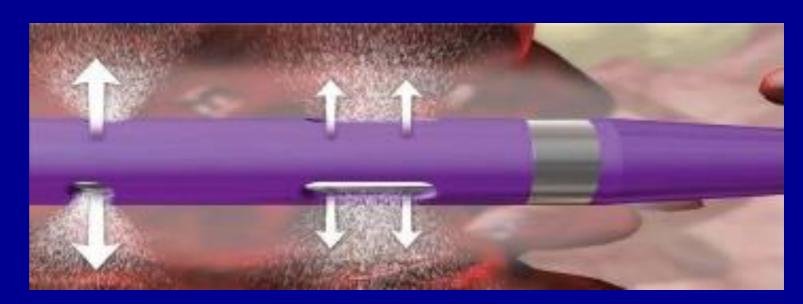
- Contraindications to thrombolytic therapy
  - Recent surgery
  - Advanced malignancy
  - Trauma

- Less than 1 year life expectancy
- Poor premorbid mobility

### Devices and catheters



Trellis (Covidien)



AngioJet (Boston Scientific)





EKOS (EKOS Corp.)

Imperial College London

# Complications

- Haemorrhage
  - Retro peritoneal
  - Access site
  - Intracranial

- Retro-peritoneal haematoma
- Failure to re-canalise
- Contrast reaction

## **CAVENT** study

**Open Access** 

Kev messanes

- QOL did not differ between patients allocated thrombolytic therapy compared with control patients who received standard anticoagulation and compression stockings only.
- and disease-specific QOL scores compared with patients without PTS.
- QOL assessment should be among the long-term outcome measures in clinical research on patients who are at risk of developing PTS.
- First
- 14.4
- No s

# Quality of Life

- PTS associated with a poor quality of life
- Shorter hospital stay with CDT/PMT
- No net benefit in QOL with CDT from CAVENT

#### ORIGINAL INVESTIGATION

Effect of Postthrombotic Syndrome on Health-Related Quality of Life After Deep Venous Thrombosis

Susan R. Kahn, MD, MSc; Andrew Hirsch, MD; Ian Shrier, MD, PhD

Background: Postthrombotic syndrome (PTS) is a frequent chronic complication of deep venous thrombosis, yet its impact on health-related quality of life has not been Results: Of the 41 subjects (mean age, 51.2 years), 19 (46%) had PTS. Subjects with PTS had significantly worse disease-specific quality-of-life scores than those without PTS



### Guidance

#### NICE

Recommendations

AVF/SVS

**ACCP** 

20.Consider catheter-directed thrombolytic therapy for patients with symptomatic iliofemoral DVT who have:

- symptoms of less than 14 days' duration and
- good functional status and
- a life expectancy of 1 year or more and
- · a low risk of bleeding.

Farly thrombus removal strategies for acute deep

- 2.1. We suggest a strategy of early thrombus removal in selected patients meeting the following criteria (a) a first episode of acute iliofemoral deep venous thrombosis, (b) symptoms <14 days in duration, (c) a low risk of bleeding, and (d) ambulatory with good functional capacity and an acceptable life expectancy.</p>
- 2.2. We recommend early thrombus removal strategies as the treatment of choice in patients with limb-threatening venous ischemia due to iliofemoral deep venous thrombosis with or without associated femoropopliteal venous thrombosis (phlegmasia cerulea dolens).

Arbor, Mich

In patients with acute proximal DVT of the leg, we suggest anticoagulant therapy alone over catheter-directed thrombolysis (CDT) (Grade 2C).

Remarks: Patients who are most likely to benefit from CDT (see text), who attach a high value to prevention of post thrombotic syndrome (PTS), and a lower value to the initial complexity, cost, and risk of bleeding with CDT, are likely to choose CDT over anticoagulation alone.



# Ongoing Trials

#### Rationale and Design of the ATTRACT Study - A Multicenter Randomized Trial to

Example: "Heart attack" AND "L Clinical Trials.gov Search for studies: Previ A service of the U.S. National Institutes of Health Advanced Search | Help | S Thro **Find Studies About Clinical Studies Submit Studies About This Site** Resources Home > Find Studies > Study Record Detail Suresh Magnu DUTCH CAVA-trial: (Atheter Versus Anticoagulation Alone for Acute Primary (Ilio)Femoral DVT. (NL28394) Heathe

The recruitment status of this study is unknown because the information has not been verified recently.

Verified October 2012 by Maastricht University Medical Center. Recruitment status was Recruiting

#### Sponsor:

Maastricht University Medical Center

Information provided by (Responsible Party):

Maastricht University Medical Center

#### ClinicalTrials.gov Identifier:

NCT00970619

First received: September 1, 2009 Last updated: October 11, 2012 Last verified: October 2012

**History of Changes** 



# Thank You!

