

# Fundamental tool for the treatment of post-thrombotic syndrome

***Dra. Masino, María Cecilia***  
***Fellow in Interventional Cardiology***  
***Private Hospital of Rosario***  
***Santa Fe - Argentina***

# Disclosure Statement of Financial Interest

I, Masino María Cecilia DOES NOT have a financial interest/arrangement or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in the context of the subject of this presentation.

# Clinical History



Female  
**26- yo**



**No**

Cardiovascular  
risk factors

Toxic habits



History of Oral  
Contraceptive  
Use



**2 YEARS AGO**

Bilateral pulmonary embolism

Secondary to right ilio-femoral  
deep vein thrombosis.

Treatment with apixaban.

# Current illness

Consultation for

- **edema** of the lower right limb of 1 year of evolution
- **pain** that prevents wandering in the last 3 months.



- **diameter difference**
- **positive godet edema**
- **tenderness**
- **atypical varicose veins**

## DIAGNOSIS

**post-thrombotic syndrome**

# DIAGNOSIS

## post-thrombotic syndrome

Villalta Score 11 pts.

Variable	None	Mild	Moderate	Severe
<b>Symptoms</b>				
Pain	0	1	2	3
Cramps	0	1	2	3
Heaviness	0	1	2	3
Paraesthesia	0	1	2	3
Pruritis	0	1	2	3
<b>Clinical signs</b>				
Pretibial oedema	0	1	2	3
Skin induration	0	1	2	3
Hyperpigmentation	0	1	2	3
Redness	0	1	2	3
Venous ectasia	0	1	2	3
Pain on calf compression	0	1	2	3
Venous ulcer	Absent	-	-	Present

Score EQ5D5L 13 pts.



start of study...

~~Injury (vessel wall)~~

**Hipercoagulability** - exclude thrombophilia

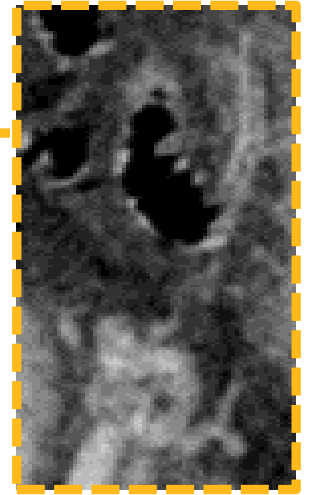
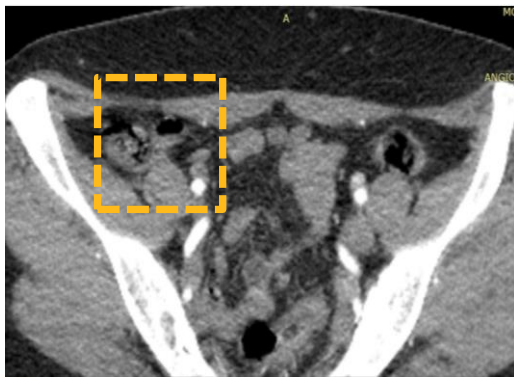
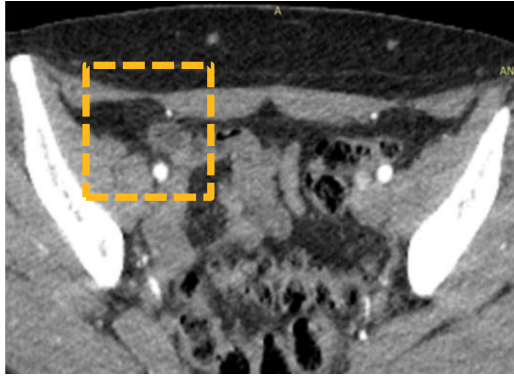


Investigation	Hypercoagulopathy
<b>Primary</b>	
Antithrombin antigen and activity	Antithrombin deficiency
Prothrombin 20210A genetic analysis	Hyperprothrombinaemia
APC resistance test	Factor V Leiden deficiency
Factor V Leiden genotype	Factor V Leiden deficiency
Protein C antigen and activity	Protein S and C deficiency
Protein S antigen	Protein S and C deficiency
Factor VIII levels	Factor VIII elevation
Functional plasminogen	
<b>Secondary</b>	
Antiphospholipid/anticardiolipin	Antiphospholipid syndrome
Homocysteine level	Hyperhomocysteinaemia
Cryoglobulins and cold agglutins	

**Stasis** - flow obstruction

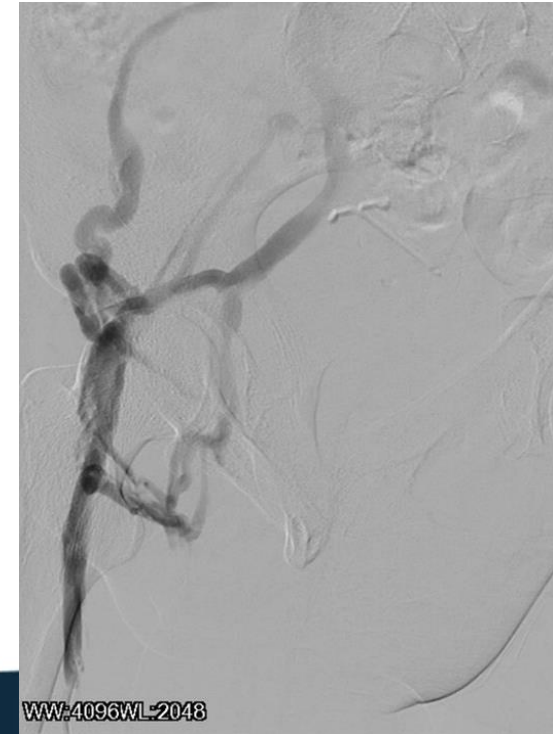
**CT angiography**

# CT angiography with venous time



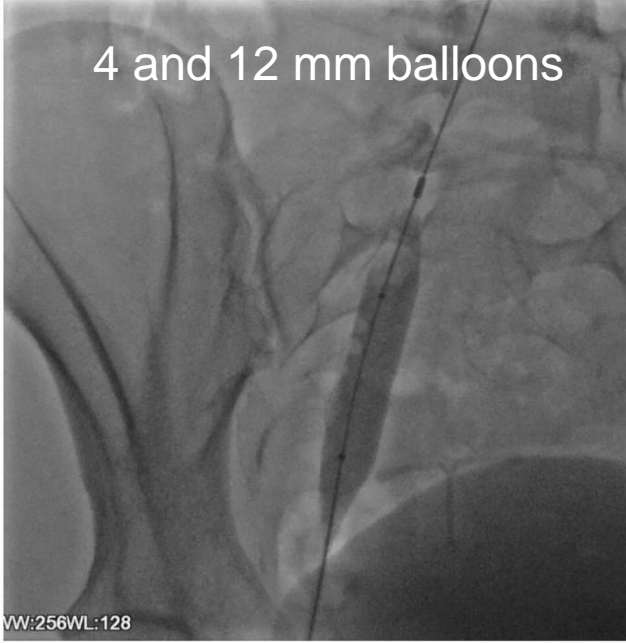
# RESOLUTION: ANGIOPLASTY OF THE RIGHT EXTERNAL ILIAC VEIN WITH STENT IMPLANT.

- General sedation.
- Prone position.
- Echo-guided puncture of the right popliteal vein.
- 10 Fr valved introducer.

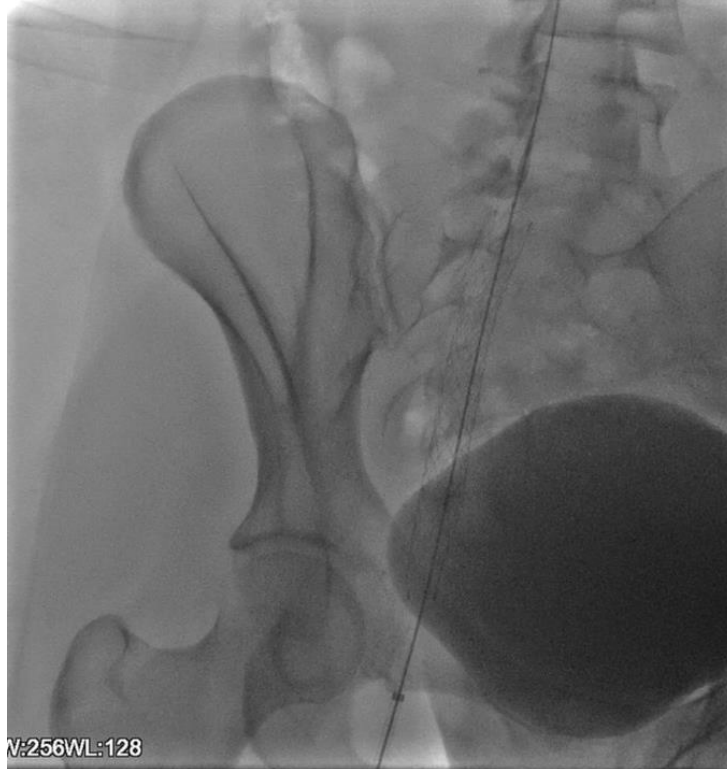




# RESOLUTION: ANGIOPLASTY OF THE RIGHT EXTERNAL ILIAC VEIN WITH STENT IMPLANT.

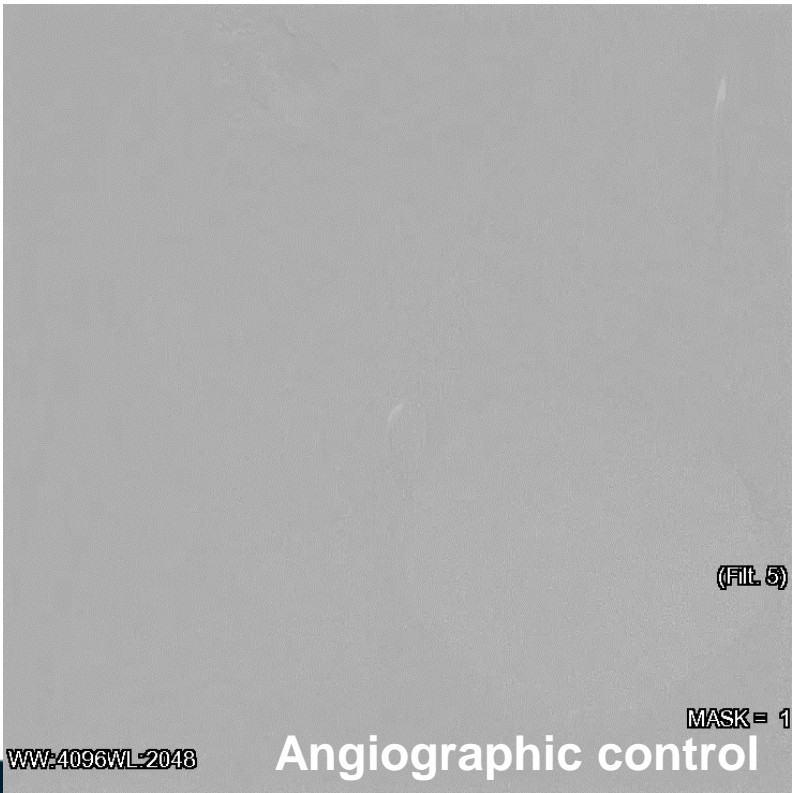


# RESOLUTION: ANGIOPLASTY OF THE RIGHT EXTERNAL ILIAC VEIN WITH STENT IMPLANT.

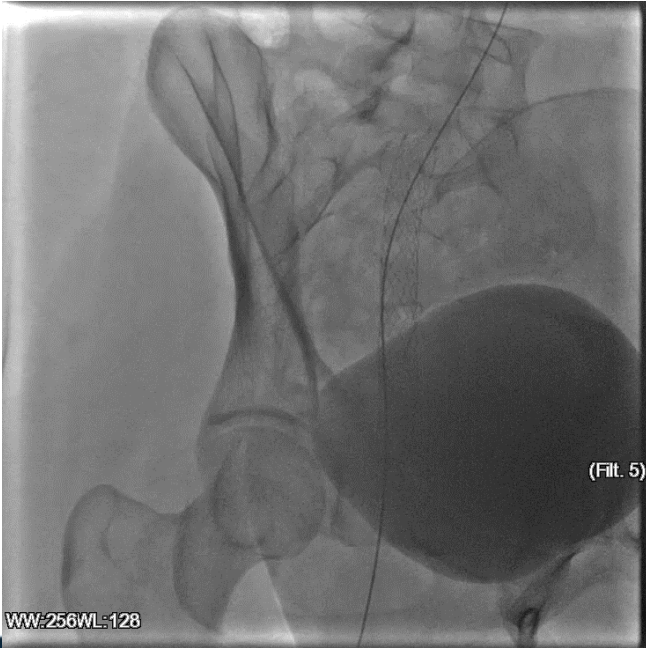


**ABRE™**  
**VENOUS SELF-EXPANDING**  
**12 X 140 MM**

# RESOLUTION: ANGIOPLASTY OF THE RIGHT EXTERNAL ILIAC VEIN WITH STENT IMPLANT.



Angiographic control



# RESOLUTION: ANGIOPLASTY OF THE RIGHT EXTERNAL ILIAC VEIN WITH STENT IMPLANT.



# Evolution



- **Favorable** with decreased edema and pain in the lower right limb. (Villalta 3 pts)
- **Control with Doppler ultrasound:** permeable stent in the right iliac vein with insufficiency of the common femoral and right popliteal veins. Insufficiency of the right saphenous femoral junction.
- **Apixaban suspended** 4 months after the procedure.

# Final Thoughts

**Post-thrombotic syndrome causes a decrease in the quality of life of patients who suffer from it.**

**Endovascular therapy currently represents a fundamental tool for the treatment of post-thrombotic syndrome, since it is a minimally invasive, safe and proven procedure.**

**THANK YOU**

**AUTHORS:** Dra. Masino Maria Cecilia – Dr. Cigalini Claudio – Dr. Ciaglini Ignacio – Dr. Najenson Martin –  
Dr. Medizza Lucas – Dr. Larghi Roberto.