Descending Thoracic Aneurysm complicating subacute aortic dissection with significant right common iliac secondary tear and static malperfusion of right kidney, unexpected outcome

Prof. Dr. A. El Samadoni M.D
Cairo University
Our Patient

- Late 40’s Male
- Recently discovered hypertensive
- Presented with epigastric pain mistreated for gastritis
- Dyspnea on lying flat
- Echocardiography compression of right atrium
CT ANGIOGRAPHY
Strategy

• Lt. Brachial access
• Lt. femoral cut down for device
  – Gore TAG 40 X 40 X 150 mm
• Rt. Femoral percutaneous 6 Fr access
• Plan
  – Cannulation / fenestration of right renal artery
  – Device positioning flush with Celiac artery
  – Covered stent 6 mm X 39 mm right renal
  – Covered stent 10 mm X 59 mm right common iliac
Procedure
Negotiation of RCIA Tear
Cannulation RRA
Post Deployment
Challenges
Out Come

• Failed to trail a device along the right renal wire
• Choose to abort the procedure (1 hour)
• Plan for three weeks procedure with appropriate tools e.g. Microcatheter
• Post operative
  – Tight control of blood sugar
  – Slight temporary rise of S. Creatinine
  – Discharged with planned procedure in two weeks
Later on

• The patient skipped his follow up for 9 months
• Presented for regular follow up with
  – Controlled blood pressure
  – No more Dyspnea
  – Good renal function
• Ordered for follow up CT
Progression of Malperfusion and Loss of Rt. Kidney
Expansion to infrarenal Aortic aneurysm

EXPECTATIONS
Analysis
At Main Entry

Expansion of the true lumen with rim thrombosis of the false
At Celiac Artery

Maintained Expansion of true lumen with flow at shrinking false lumen with thick matured flap
At Rt. Renal Artery

Perfusion of the Rt, renal artery with mature flap 5-6 mm
With maintained expansion of the true lumen
Infra-Renal Aorta

Post

Pre

Expansion of the TRUE Lumen and maintained 12 mm channel for rt. Kidney perfusion
Resume
Outcome

• So we end up by a remodeling that result in
  – Aneurysm shrinkage
  – Expansion of the true lumen
  – Nature induced tube like channel resembling an ilio-renal bypass
• The patient is scheduled for tight follow up watching for further ?? Positive Remodeling
Option ???

If things goes wrong

• Without aortic diameter increase
  – Right common iliac covered stent with surgical Ilio-Renal Bypass

• With Aortic diameter increase
  – EVAR deployment and Ilio-Renal Bypass
WARM GREETINGS
FROM CAIRO UNIVERSITY