



INSTITUT JANTUNG NEGARA
National Heart Institute



Malaysia Responds : How Would I Treat the Case in Malaysia

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IJN. caring
BEYOND
your HEART 

Aortic Dissection with Flow Cessation to
the Entire Lower Limb Circulation:
How Can we Fix it?

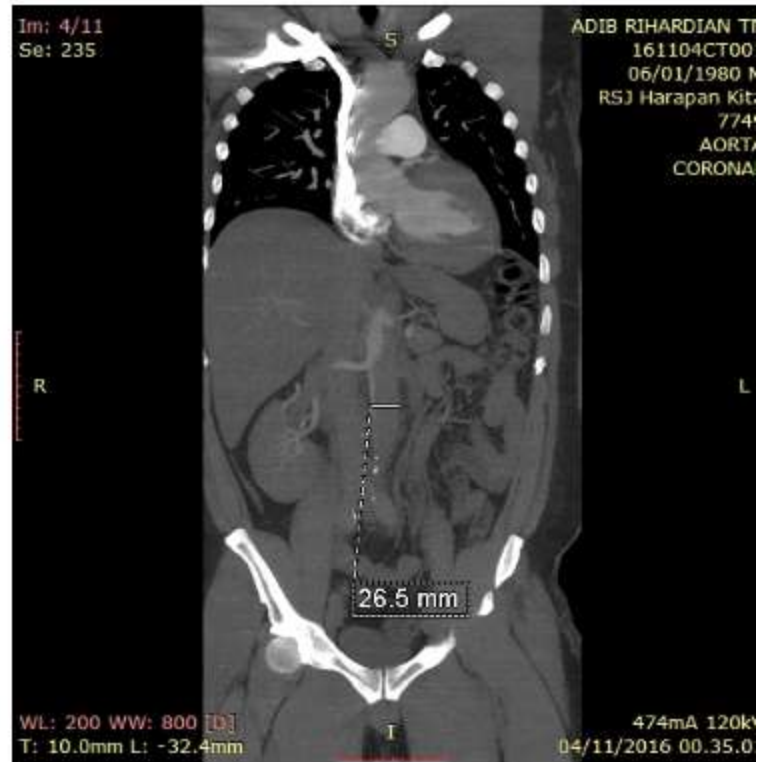
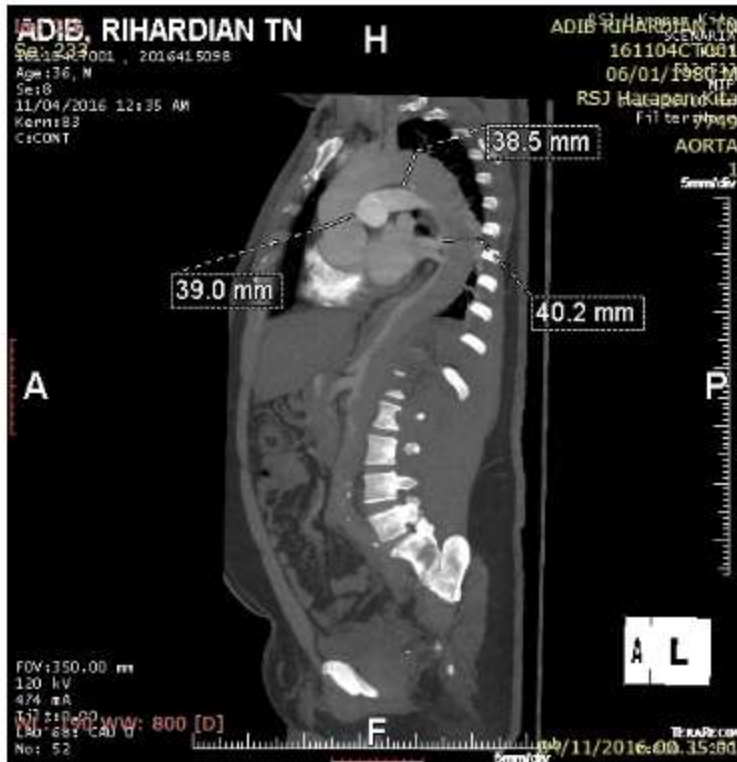
Case Illustration

- 37 Year-old Police Officer
- Uncontrolled Hypertension, Smoker
- Back Pain, immediately followed by bilateral leg pain and numbness
- Referred to our Hospital

On Admission

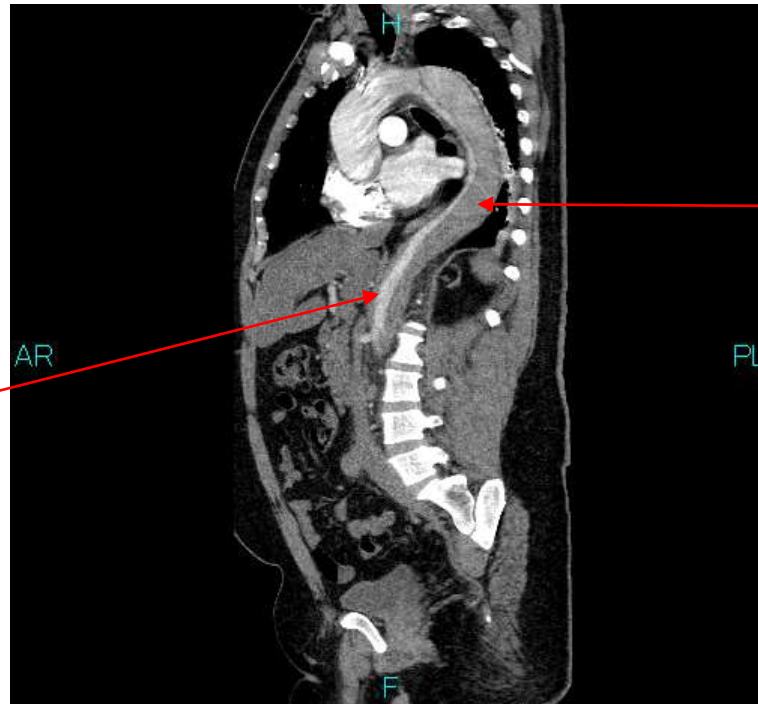
- Back pain and Leg pain persisted
- Femoral /popliteal pulse (-/-)
- D-dimer 3259 ng/mL, Ur: 36 mg/dL, Cr 1.13 mg/dL
- Duplex Ultrasound:
 - No Iliac/femoral arterial flow
- Immediate CT

Aortic CT Angiography



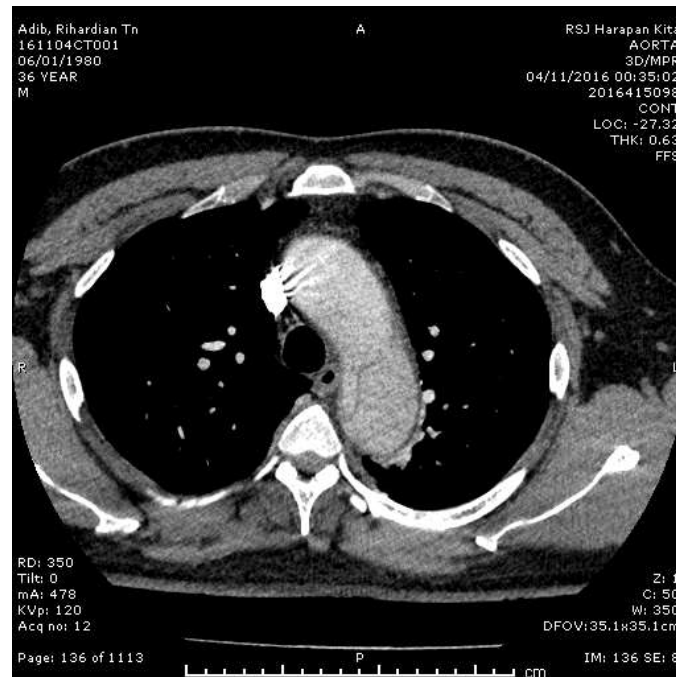


True lumen



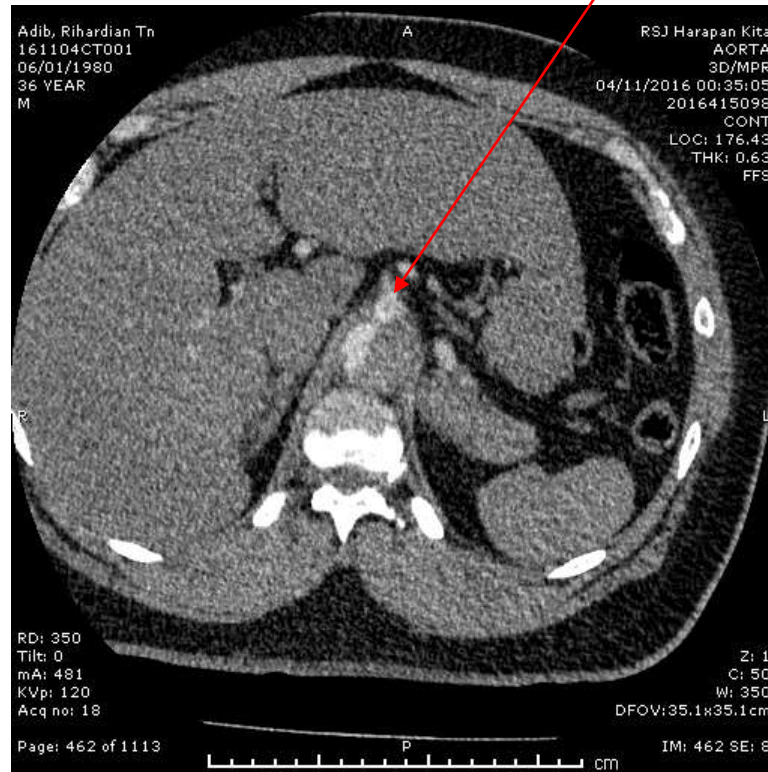
False lumen

Entry point



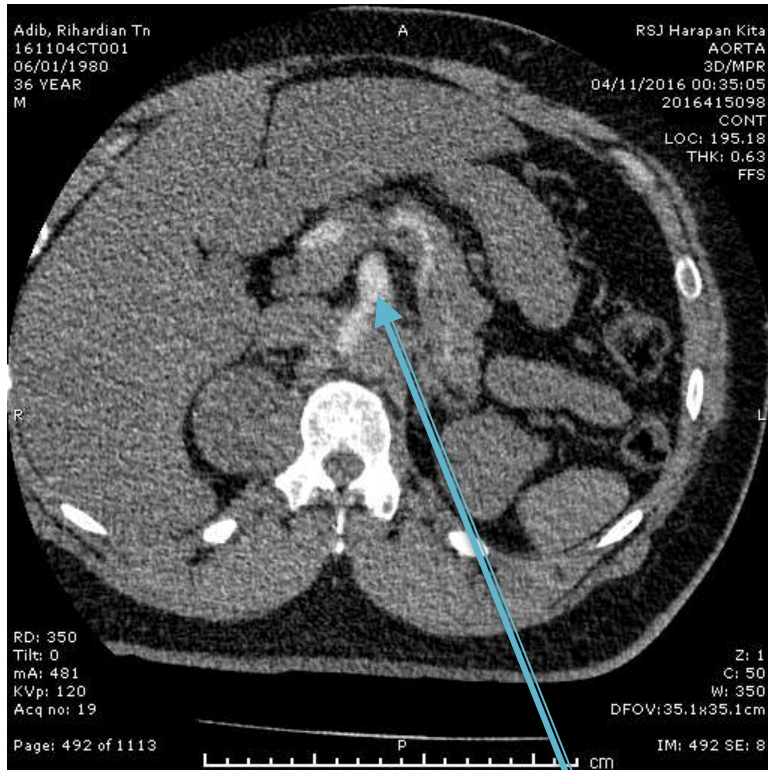
Celiac axis

Coeliac axis



SMA

Coeliac axis

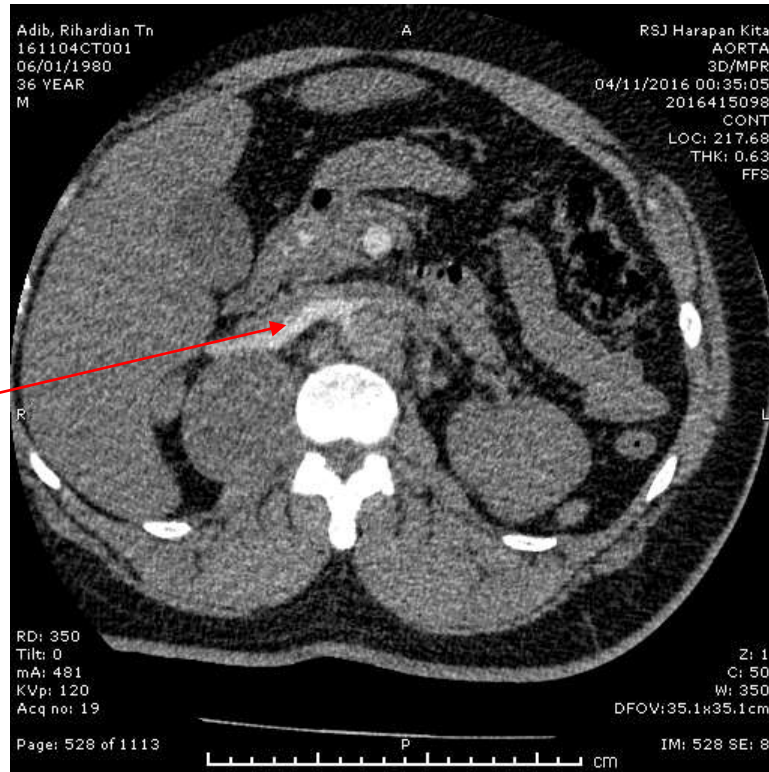


SMA



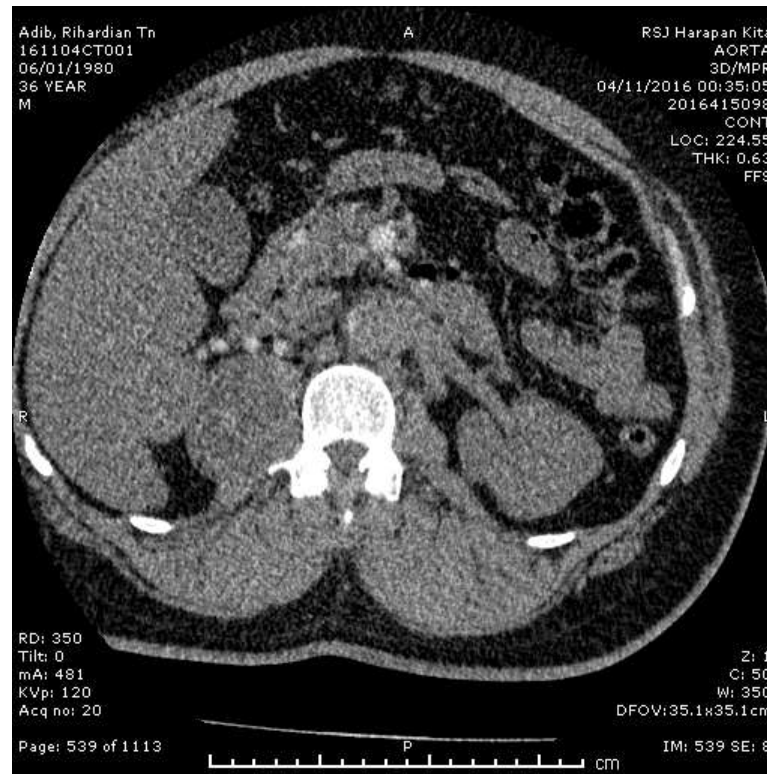
SMA

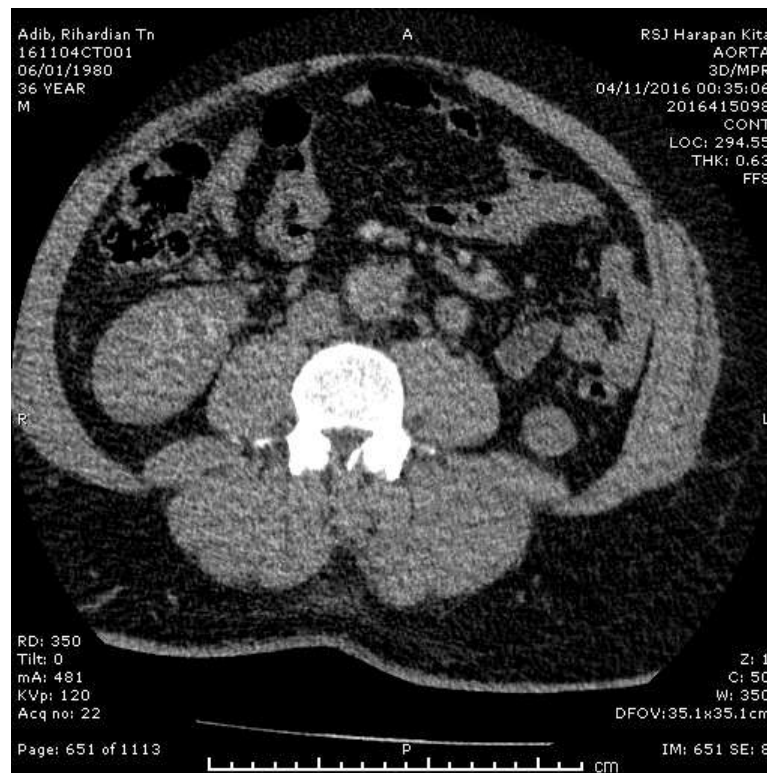
RRA

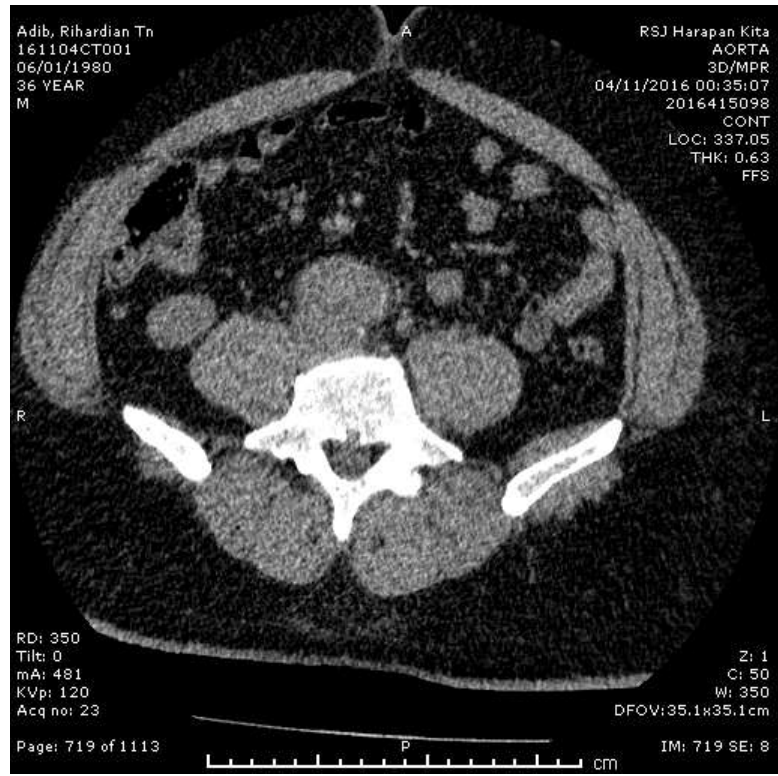


Right renal
artery

LRA











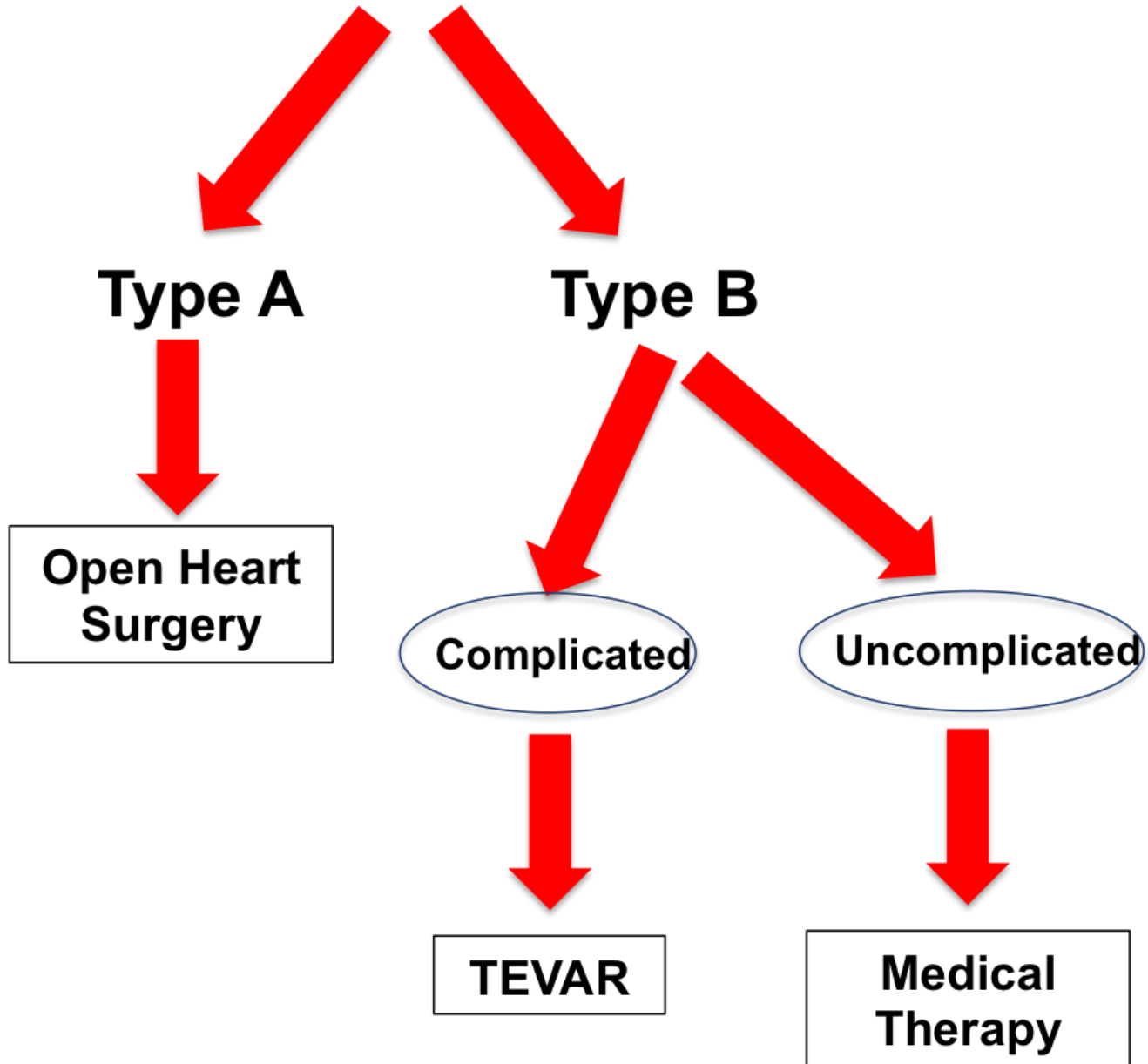


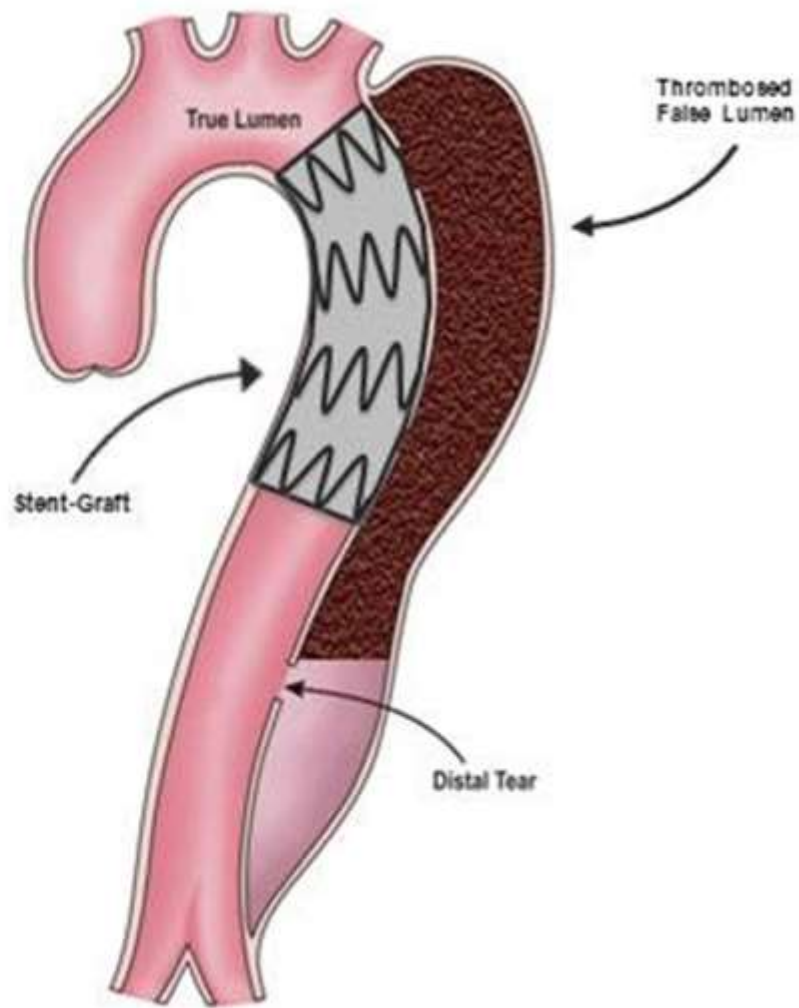
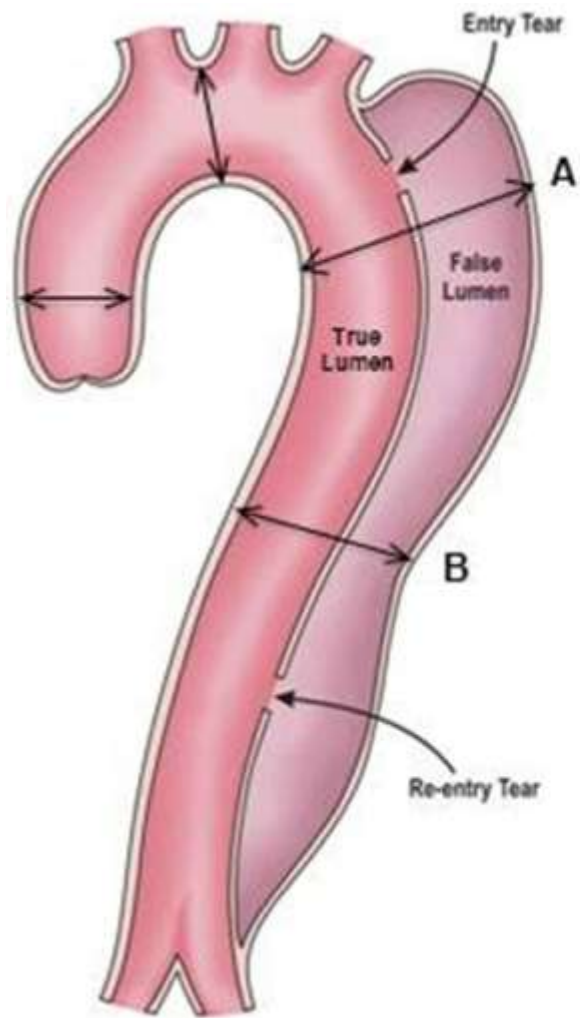
"Higher d-dimer levels correlate with more segments of the aorta involved, with false lumen type dissections, and with higher mortality rates"

DISCUSSION

- Initial Management
 - Blood Pressure: Systolic BP < 100 mmHg
 - Heart Rate: < 60 beats per minute
 - Pain Management: Morphine

Aortic Dissections





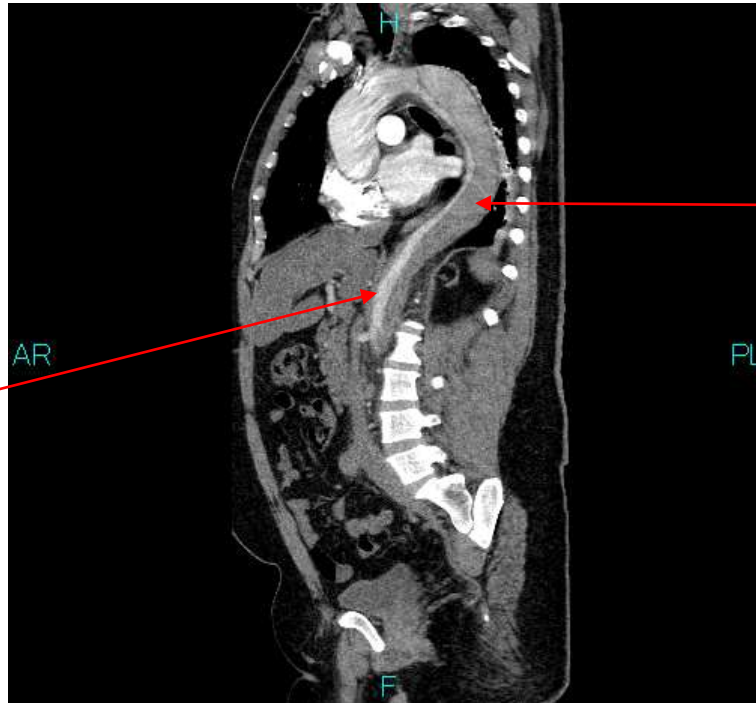
INDICATIONS FOR SURGERY

- **Stanford type A (DeBakey type I and II)** ascending aortic dissection
- ***Complicated Stanford type B (DeBakey type III)*** aortic dissections with clinical or radiological evidence of the following conditions:
 - Propagation (increasing aortic diameter)
 - Increasing size of hematoma
 - Compromise of major branches of the aorta
 - Impending rupture

Vascular Access

- TEVAR
- Percutaneous
- Surgical

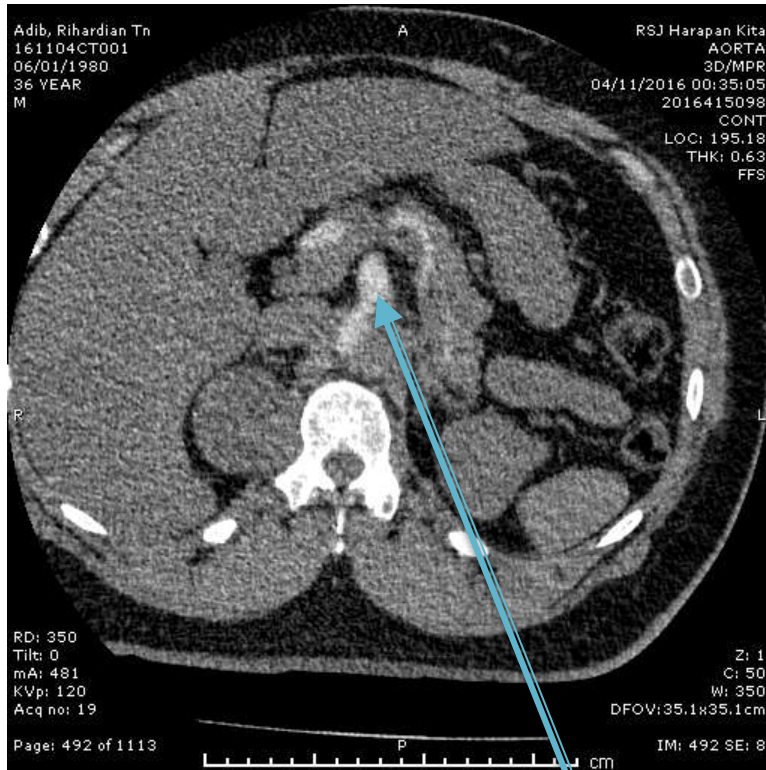
True
lumen



False
lumen

SMA

Coeliac axis



SMA



SMA

TEVAR

Long Term Prognosis

- Data from IRAD

1 in 4 patients with type B dissections died at 3-year mark, regardless of mode of therapy

- Survival rates

Medically – 77.6%

Surgically – 82.8%

Endovascular therapy – 76.2%

Actuarial Survival for all patients, regardless of medical or surgical therapy:

- 1 year : 71 %
- 5 years: 60 %
- 10 years: 35 %
- 15 years: 17 %

Independent Predictors:

- Diameter > 4 cm
- Patent false lumen
- Partially thrombosed false lumen



Thank you

Special thanks to

Dato Dr Abdul Samad Sakijan

Dr Shaiful Azmi Yahya

Miss Norizan Omar