Case report – PAD KOL forum

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SCHOOL OF MEDICINE

Case presentation

- 70y old female with left leg Rutherford grade V PAD
- Smoker, HTA, HLP, obese (BMI=31), COPD, CKD (grade III), previous billateral CEA

- ABI right 0.40 and 0.40, left 0.30 and 0.30
- Inadequate GSV
- No femoral pulse, Leriche disease

1. How would you treat this patient?

Case presentation

The only surgical possibility was the AFF bypass

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Stres echo test - positive

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Coronarography – mid LAD calcified 80% stenosis, Cx with diffuse atheroscletoric disease, RCA with mid 80% stenosis (3 vessel disease)

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PCI for LAD – not succesfull

Case presentation

Second PCI for LAD with rotablation with implantation of four DES (sirolimus + zotralimus)

⬇

Third PCI for RCA with rotablation with implantation of four DES (sirolimus + zotralimus)

⬇

DAPT for 3 months and than AFF bypass

After one month worsening, Rutherford VI PAD!!!

Case presentation

After one month worsening, Rutherfor VI PAD

DAPT, PFT (Multiplate®) good efect of Aspirin with no effect of Clopidogrel

AFF was performed and postoperative period was uneventful, 1mo FU recovering well (Ticagrelor insted of Clopidogrel)

Points to discuss

2. PAD patients do show tendency towards ADP drug resistance, no recommendation what to do with it?

Platelet reactivity test	Measurement time	Automatic assessment	Standardisation	Main advantages	Main limitations
Light transmittance aggregometry (LTA)	20 min	No	No	Standard because of long lasting experience. Inexpensive.	Not standardised cutoffs for HTPR. Manually conducted test. Time consuming.
Vasodilator stimulated phosphoprotein (VASP) phosphorylation assay	2–3 h	No	Yes	Standardised test. Highest P2Y12 specificity.	Requires flow cytometry lab. Time consuming.
Platelet function analyser (PFA)	8 min	Yes	Yes	Rapid and automatic. Simulation of flow conditions.	Originally designed as screening instrument for coagulopathy and thus lack screening to antiplatelet therapy.
VerifyNow	6 min	Yes	Yes	Easy and rapid point of care test. Widely used. Aspirin, P2Y12, and GPIIb/IIIa inhibitor monitoring.	Cutoff values differ per patient population.
Impedance Aggregometry (Multiplate Analyser)	10 min	Partial	Yes	Aspirin and P2Y12 monitoring.	Not point of care. Semiautomatic.
Thromboelastography (TEG)	30–60 min	Partial	Yes	Point of care.	Measure clot properties. Time consuming. Semiautomatic.

- **30% PAD patients do have resistance to ADP drugs**

- **Resistance was assocaited with MALE, MACE, all-cause mortality**

Points to discuss

3. Duration of DAPT after PCI, patients requiring non-dealying surgery?
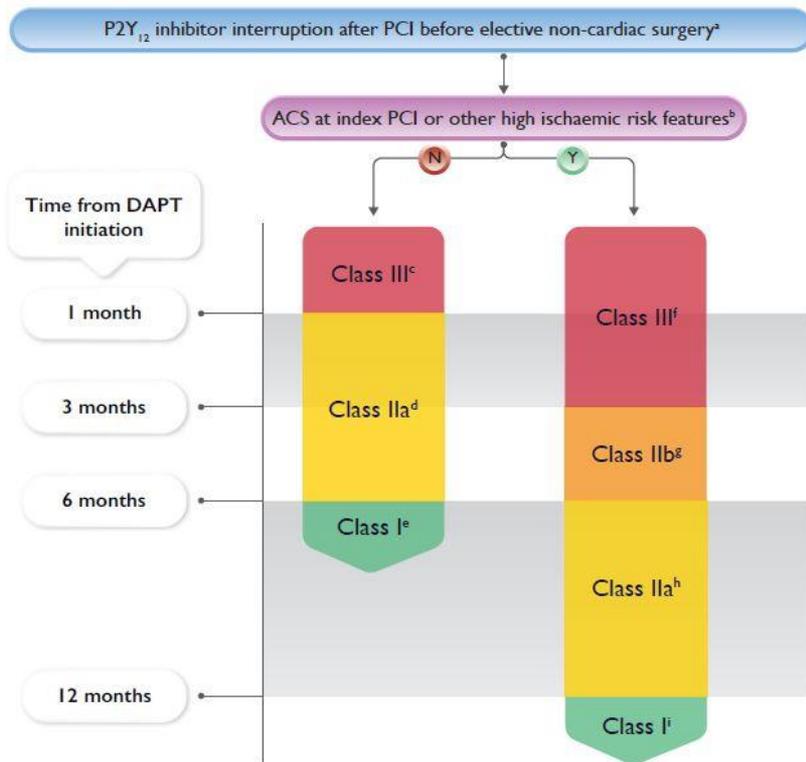
Recommendations	Class[a]	Level[b]
It is recommended to delay elective NCS until 6 months after elective PCI and 12 months after an ACS.[264,271]	I	A
After elective PCI, it is recommended to delay time-sensitive NCS until a minimum of 1 month of DAPT treatment has been given.[266,271,288,289]	I	B
In patients with a recent PCI scheduled for NCS, it is recommended that management of antiplatelet therapy is discussed between the surgeon, anaesthesiologist, and cardiologist.	I	C
In high-risk patients with a recent PCI (e.g. STEMI patients or high-risk NSTE-ACS patients), a DAPT duration of at least 3 months should be considered before time-sensitive NCS.	IIa	C
Continuation of medication		
In patients with a previous PCI, it is recommended to continue aspirin peri-operatively if the bleeding risk allows.[244]	I	B

4. Do you routenly do cardiac work-up for CLTI patients?

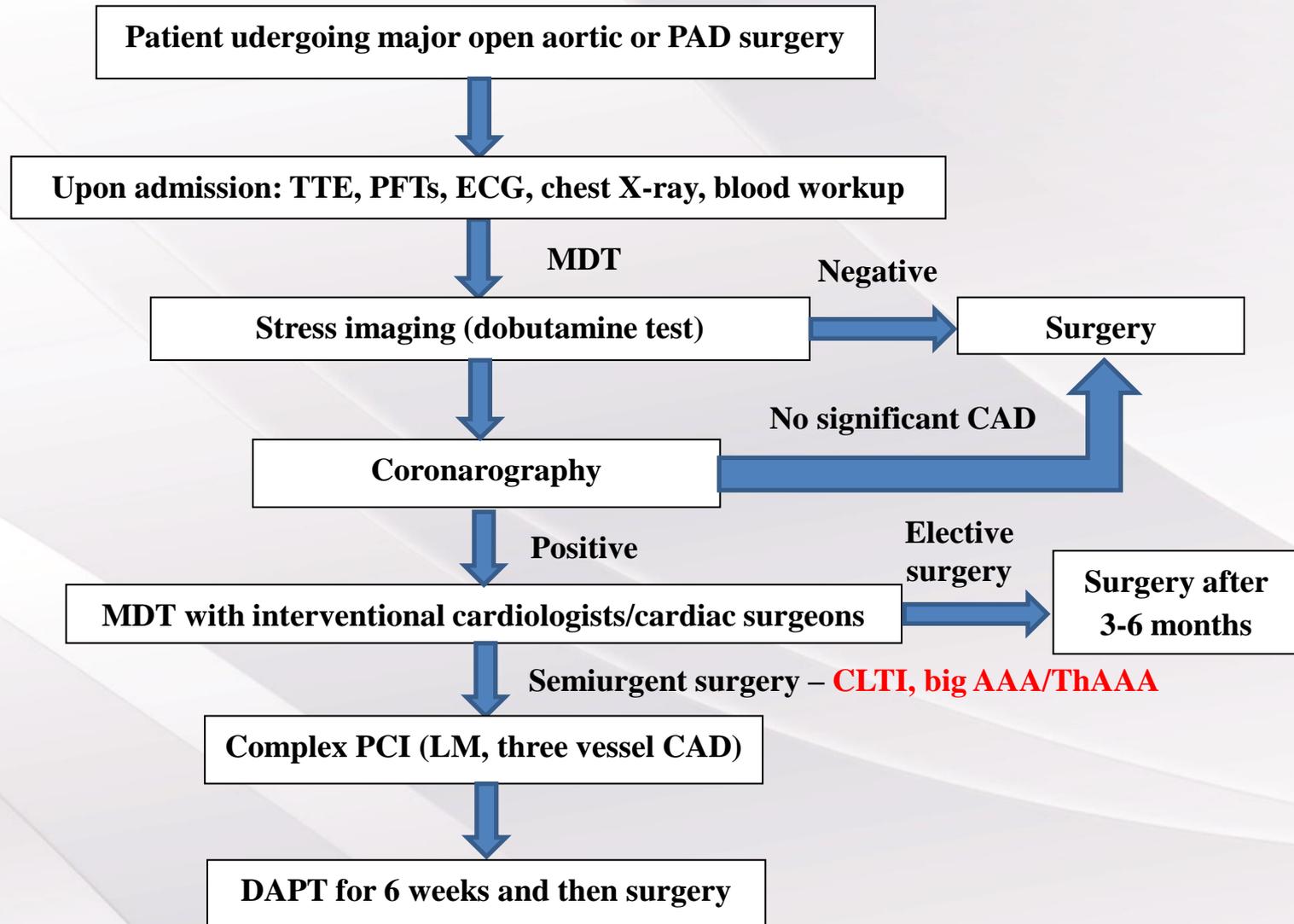|		
Routine pre-operative evaluation of LV function is not recommended.[122,145]	III	C
Stress imaging is not recommended routinely before NCS.	III	C
Routine referral for cardiac work-up, coronary angiography, or CPET prior to elective surgery for PAD or AAA is not recommended.	III	C

Clinic for Vascular and Endovascular Surgery cardiac workup algorithm

Patient udergoing major open aortic or PAD surgery

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Upon admission: TTE, PFTs, ECG, chest X-ray, blood workup

↓ MDT

Stress imaging (dobutamine test) — **Negative** → Surgery

↓

Coronarography — **No significant CAD** → Surgery

↓ **Positive**

MDT with interventional cardiologists/cardiac surgeons — **Elective surgery** → Surgery after 3-6 months

↓ Semiurgent surgery – CLTI, big AAA/ThAAA

Complex PCI (LM, three vessel CAD)

↓

DAPT for 6 weeks and then surgery

?

THANK YOU
FOR
YOUR
ATTENTION
ANY QUESTIONS?