Unprotected LM in the setting of AHF

Dr . AbdelRahman Gamal, MsC
Department of Cardiovascular medicine and Interventional Cardiology

National Heart Institute

- Our patient S.M, 42 years old Female, Diabetic , Hypertensive & Known ischemic with h. of PCI with 2 DES 10 m. ago
- The patient was strict to her GDMT
- 2 m. ago her ECHO showed : EF 22%, mildly dilated normal LV dimentions, DD2 , SWMA in the form of akinesia in mid, apical septum, basal, mid & apical ant. Wall & apex proper, severehypokinesia in the rest of myocardial segments
- Dobutamine echo was done for viability showed viable myocardium in the LAD, LCX & RCA territories
- 1 w. ago the patient developed severe rapidly progressive extensional dyspnea
- Patient admitted to CCU , her Bl. P 90/60 , HR 108 bpm with congestion up to mid lung zones
- Labs : +ve troponin, cr. 0.8 , -ve HCV
- ECG: ST segment depression in anterior pericardial leads, no pathological Q wave
- Patient kept for 24 h. with full antifailure measures
- Chest was clear upon the procedure, HR 87

REVISING The ptn data 10 m. ago

- Her ECHO showed EF 48 % ,
- CA showed : proximal LAD 70 % stenosis and proximal LCX 80% stenosis with extention of the atheromteus plaque to both ostia
- PCI was done to proximal LAD and proximal LCX without full osteal coverage

Our CA revealed :

Operators :

Dr AbdelRahman Gamal
Dr Gehad Gamal

What's NEXT?

- **Transfer the patient back to the CCU?!**
- **Multidisciplinary decision-making?!**
- **Scores and risk stratifications ?!**
- **CABG ?**
- **High risk PCI for unprotected LM in the setting of AHF ?!**

Multidisciplinary discussion and patient information :

-High SYNTAX score suggesting CABG

-High STS and Euro score II scores (high risk surgery)

-Patient reused surgery after detailed discussion and preferred PCI

Revising the 2014 ESC revascularization GL:

Recommendations for management of patients with acute heart failure in the setting of ACS

Recommendations	Class[a]	Level[b]	Ref[c]
Emergency echocardiography is indicated to assess LV and valvular function and exclude mechanical complications.	I	C	
Emergency invasive evaluation is indicated in patients with acute heart failure or cardiogenic shock complicating ACS.	I	B	180,201, 221,331
Emergency PCI is indicated for patients with cardiogenic shock due to STEMI or NSTE-ACS if coronary anatomy is amenable.	I	B	221
Emergency CABG is recommended for patients with cardiogenic shock if the coronary anatomy is not amenable to PCI.	I	B	221
Emergency surgery for mechanical complications of acute myocardial infarction is indicated in case of haemodynamic instability.	I	C	

Recommendations on revascularizations in patients with chronic heart failure and systolic LV dysfunction (ejection fraction ≤35%)

Recommendations	Class[a]	Level[b]	Ref[c]
CABG is recommended for patients with significant LM stenosis and LM equivalent with proximal stenosis of both LAD and LCx arteries.	I	C	-
CABG is recommended for patients with significant LAD artery stenosis and multivessel disease to reduce death and hospitalization for cardiovascular causes.	I	B	112,288
LV aneurysmectomy during CABG should be considered in patients with a large LV aneurysm, if there is a risk of rupture, large thrombus formation or the aneurysm is the origin of arrhythmias.	IIa	C	
Myocardial revascularization should be considered in the presence of viable myocardium.	IIa	B	55
CABG with surgical ventricular restoration may be considered in patients with scarred LAD territory, especially if a post-operative LVESV index <70 mL/m² can be predictably achieved.	IIb	B	291–295
PCI may be considered if anatomy is suitable, in the presence of viable myocardium, and surgery is not indicated.	IIb	C	

We decide to proceed to PCI with the following precautions :

- High risk consent !
- Insurance good preparation of the patient
- Using minimal amount of iso or low osmolar contrast
- LM bifurcation strategy with TAP technique as plan A !

- Guiding cath : XP 3.5 – 6F
- Wires: PT2 LS
- Stents : resolute integrity
  3.5x 28
  3.0 x 18
- Ballon : 2 x 15 mm

Take Home Message :

-Good preparation of the patient clinically especially regarding the proper antifailure measures may be the crucial step to success

-Decision making with multidisciplinary approach and wise discussion with the patient is the best way in dealing with complex situations

- Using of iso or low osmolar contrast in minimal amount is another step to success

Take Home Message :

-The ideal bifurcation technique in difficult situations is that you can do fast & efficient with the best (know how)

- Finally & the most important In the absence of IVUS, we always should insure full coverage of the atheromatus plaque especially with OSTEAL LAD & LCX atheromas !


THANK YOU