PCI STRATEGY FOR STEMI AND CARDIOGENIC SHOCK

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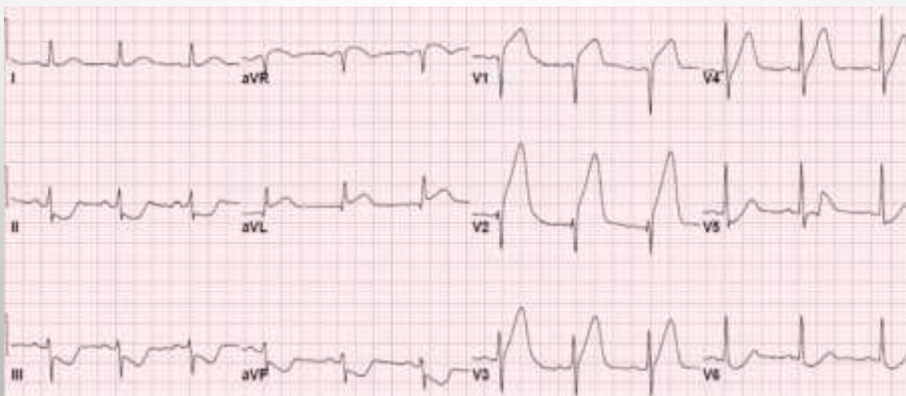
MILITARY MEDICAL ACADEMY

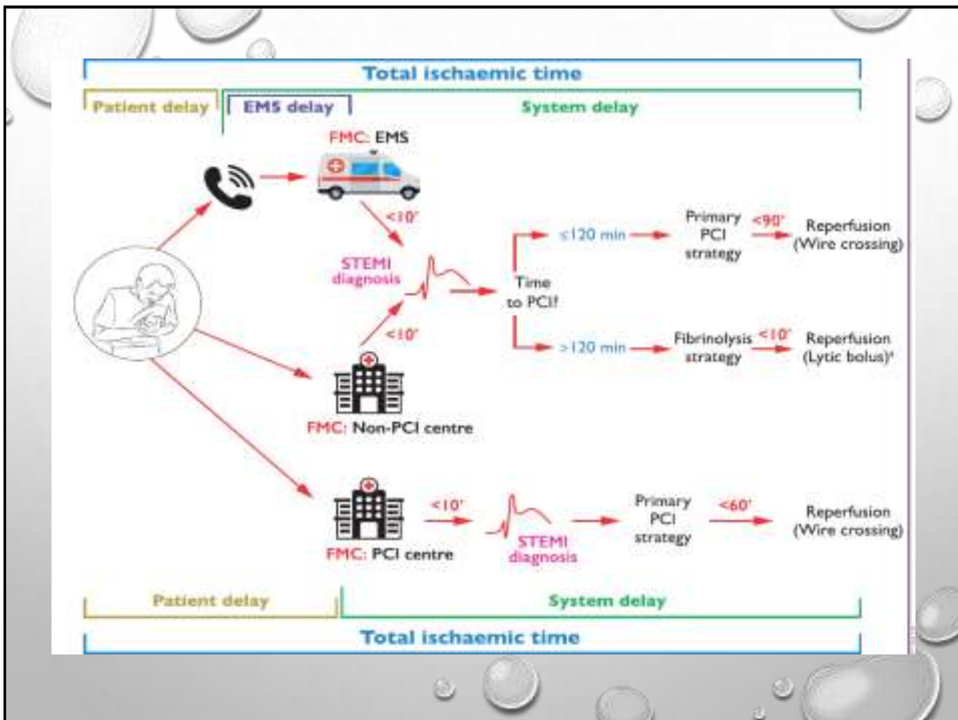
HISTORY

- 65 YEARS OLD MALE
- HYPERTENSIVE FOR 10 YEARS
- IDDM FOR 15 YEARS
- SMOKER FOR THE PAST 30 YEARS
- PH OF PCI 2012

- HE WAS PRESENTED TO THE ER BY RETROSTERNAL AGONIZING CHEST PAIN FOR 1 HOUR.
- BP: 80/50
- HEART: S1, S2, S3 GALLOP
- CHEST: BILATERAL FINE BASAL CREPITATIONS

ECG

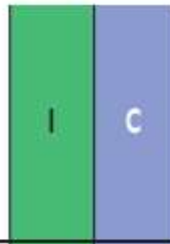



Total ischaemic time
Patient delay
EMS delay
System delay
FMC: EMS
<10'
STEMI diagnosis
<10'
Time to PCI?
≤120 min
>120 min
Primary PCI strategy
<90'
Reperfusion (Wire crossing)
Fibrinolysis strategy
<10'
Reperfusion (Lytic bolus)
FMC: Non-PCI centre
FMC: PCI centre
<10'
STEMI diagnosis
Primary PCI strategy
<60'
Reperfusion (Wire crossing)
Patient delay
System delay
Total ischaemic time

ECHO

- DILATED LV 6.7CM
- EF 35%
- MILD MR,
- GLOBAL HYPOKINESIA
- NO EVIDENCE OF MECHANICAL COMPLICATIONS.

Immediate Doppler echocardiography is indicated to assess ventricular and valvular functions, loading conditions, and to detect mechanical complications.



- SO, THE PATIENT WAS PREMEDICATED BY :
- IV MORPHIA
- O2
- ASA (300MG)
- TICAGRELOR (180 MG)
- UFH
- +VE INOTROPIC SUPPORT
- 20MG FRUSEMIDE

Antiplatelet therapy		
A potent $P2Y_{12}$ inhibitor (prasugrel or ticagrelor), or clopidogrel if these are not available or are contraindicated, is recommended before (or at latest at the time of) PCI and maintained over 12 months, unless there are contraindications such as excessive risk of bleeding.[186,187]	I	A
Aspirin (oral or i.v. if unable to swallow) is recommended as soon as possible for all patients without contraindications.[213,214]	I	B
GP IIb/IIIa inhibitors should be considered for bailout if there is evidence of no-reflow or a thrombotic complication.	IIa	C
Cangrelor may be considered in patients who have not received $P2Y_{12}$ receptor inhibitors.[192–194]	IIb	A

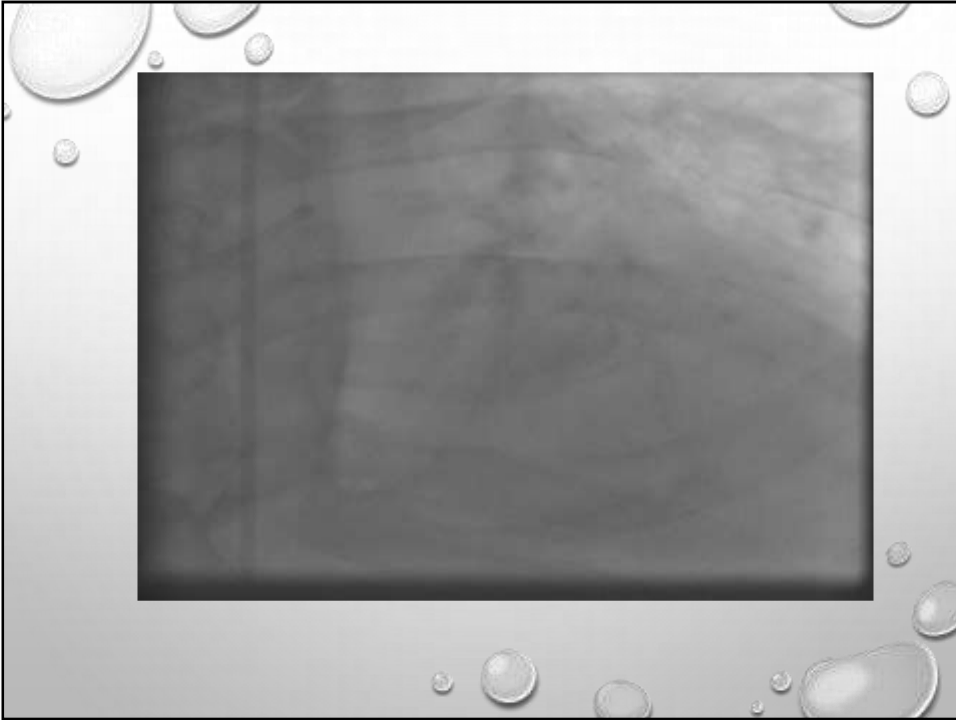
Anticoagulant therapy		
Anticoagulation is recommended for all patients in addition to antiplatelet therapy during primary PCI.	I	C
Routine use of UFH is recommended.	I	C
In patients with heparin-induced thrombocytopenia, bivalirudin is recommended as the anticoagulant agent during primary PCI.	I	C
Routine use of enoxaparin i.v. should be considered.[200–202]	IIa	A
Routine use of bivalirudin should be considered.[209,215]	IIa	A
Fondaparinux is not recommended for primary PCI.[199]	III	B

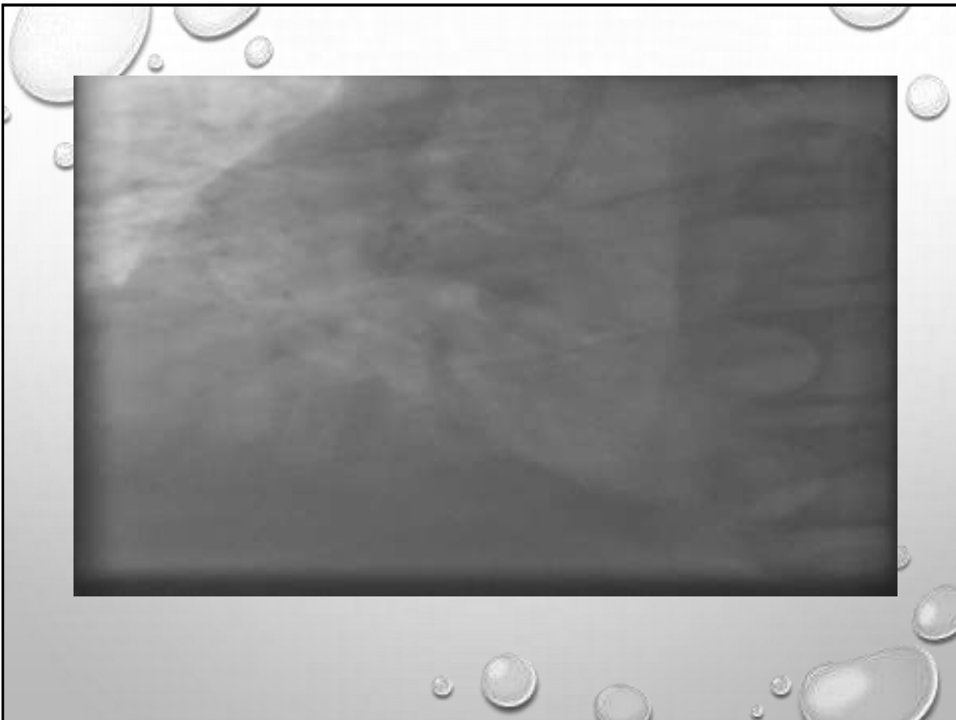
Inotropic/vasopressor agents may be considered for haemodynamic stabilization.	IIb	C

IMMEDIATE TRANSFER TO THE CATH LAB

Recommendations for the management of cardiogenic shock in ST-elevation myocardial infarction

Recommendations	Class[a]	Level[b]
Immediate PCI is indicated for patients with cardiogenic shock if coronary anatomy is suitable. If coronary anatomy is not suitable for PCI, or PCI has failed, emergency CABG is recommended.[248]	I	B
Invasive blood pressure monitoring with an arterial line is recommended.	I	C





WHAT TO DO?

- CABG
- PCI

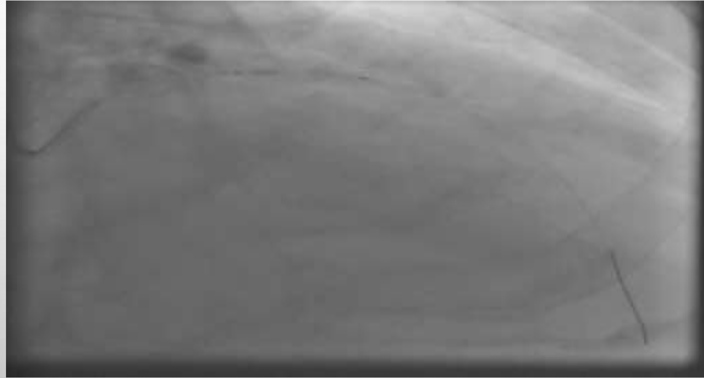
Recommendations for the management of cardiogenic shock in STEMI		
Immediate PCI is indicated for patients with cardiogenic shock if coronary anatomy is suitable. If coronary anatomy is not suitable for PCI, or PCI has failed, emergency CABG is recommended.	I	B
Routine intra-aortic balloon pumping is not indicated.	III	B

PCI STRATEGY

Recommendation	Class	Level
Complete revascularization during the index procedure should be considered in patients presenting with cardiogenic shock.	IIa	C
Intra-aortic balloon pumping should be considered in patients with haemodynamic instability/cardiogenic shock due to mechanical complications.	IIa	C
Routine intra-aortic balloon pumping is not indicated.[177,437]	III	B

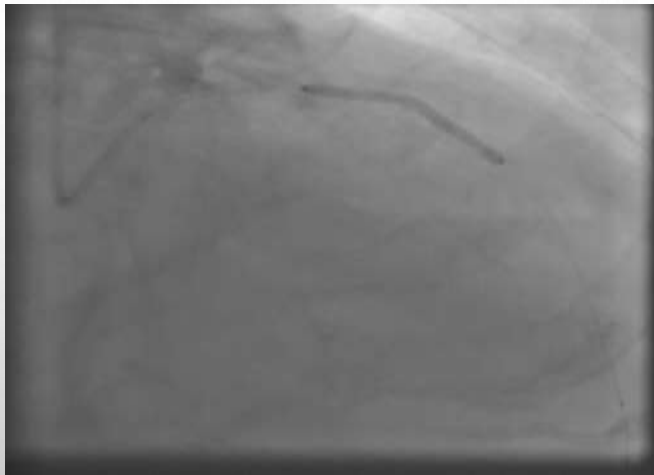
WIRING OF LAD BY BMW WIRE

PTCA BY MAVERICK 2.0X20MM



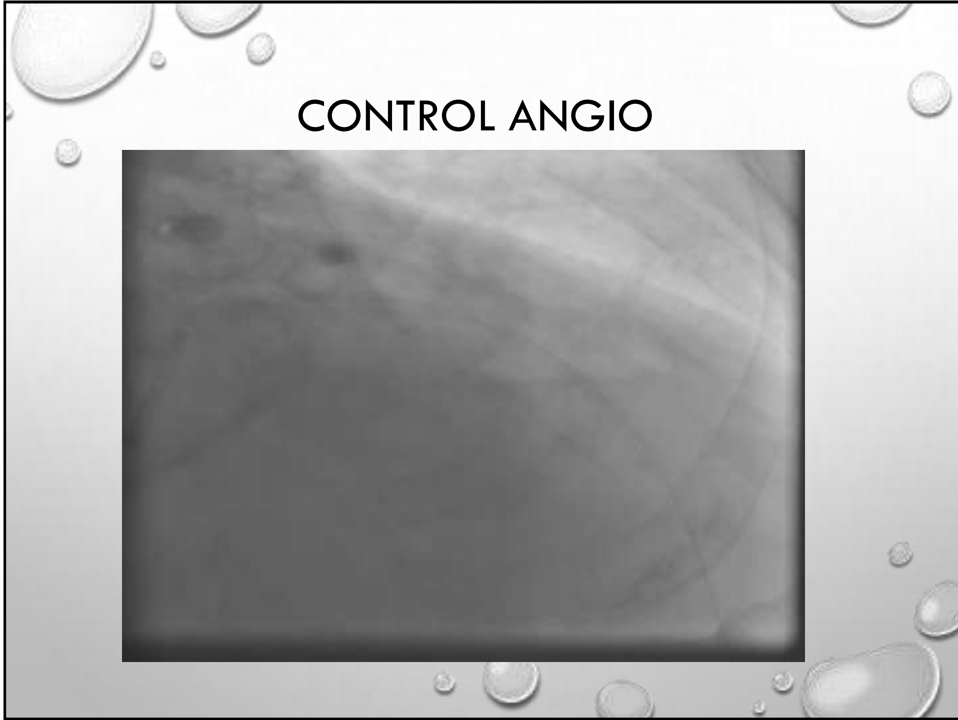
CONTROL ANGIO

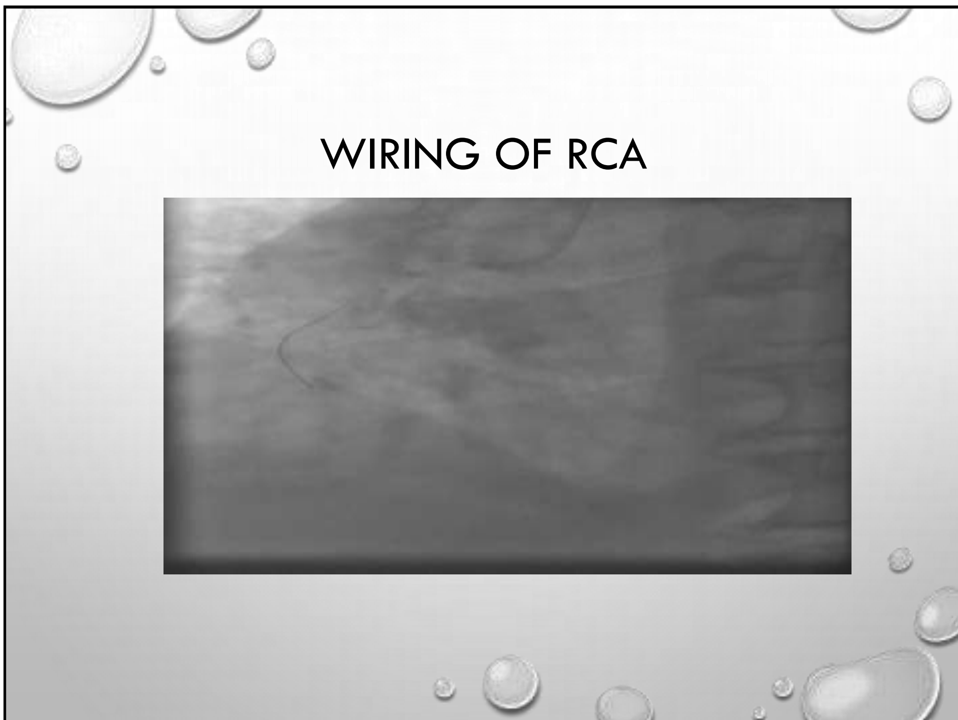
FIXATION OF DISTAL LESION BY DES 2.75X34MM

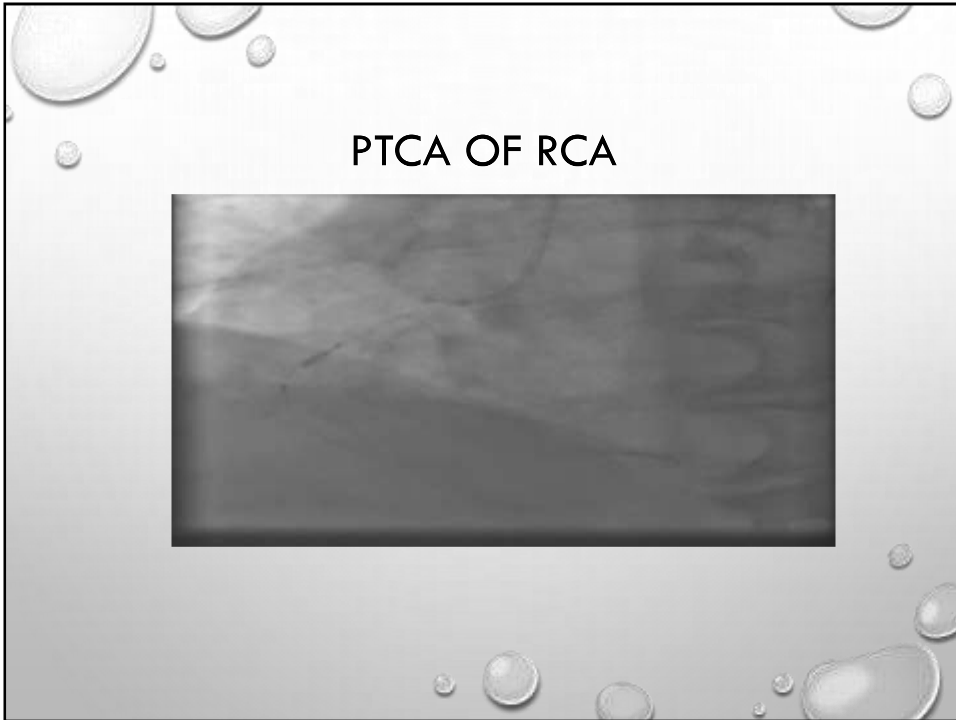


CONTROL ANGIO

FIXATION OF PROXIMAL LESION BY DES 3.0X22MM


CONTROL ANGIO


WIRING OF RCA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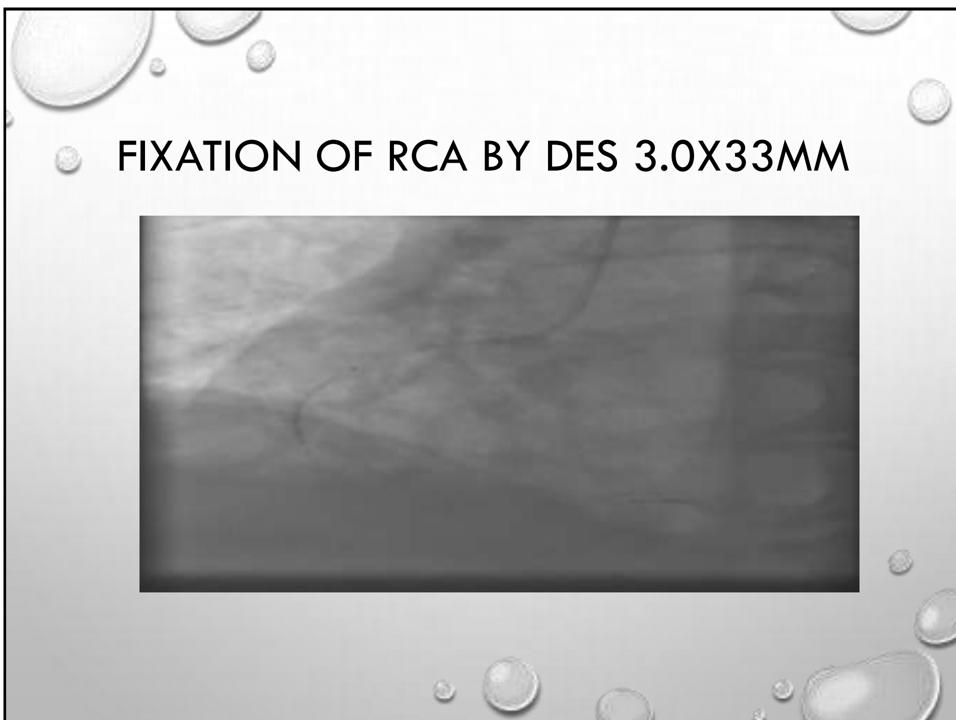
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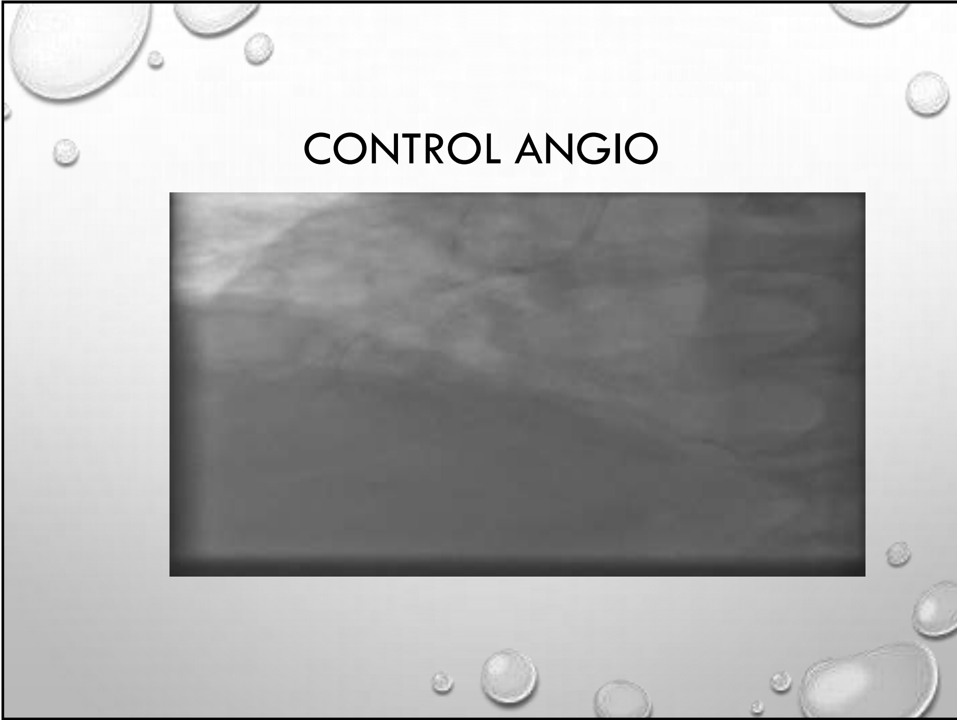
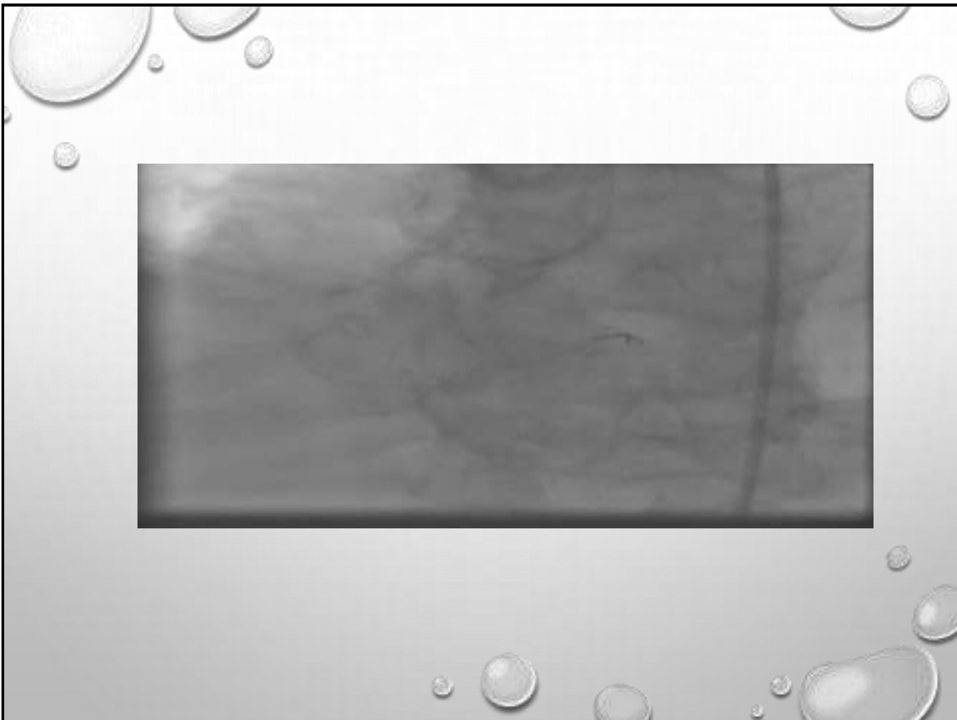
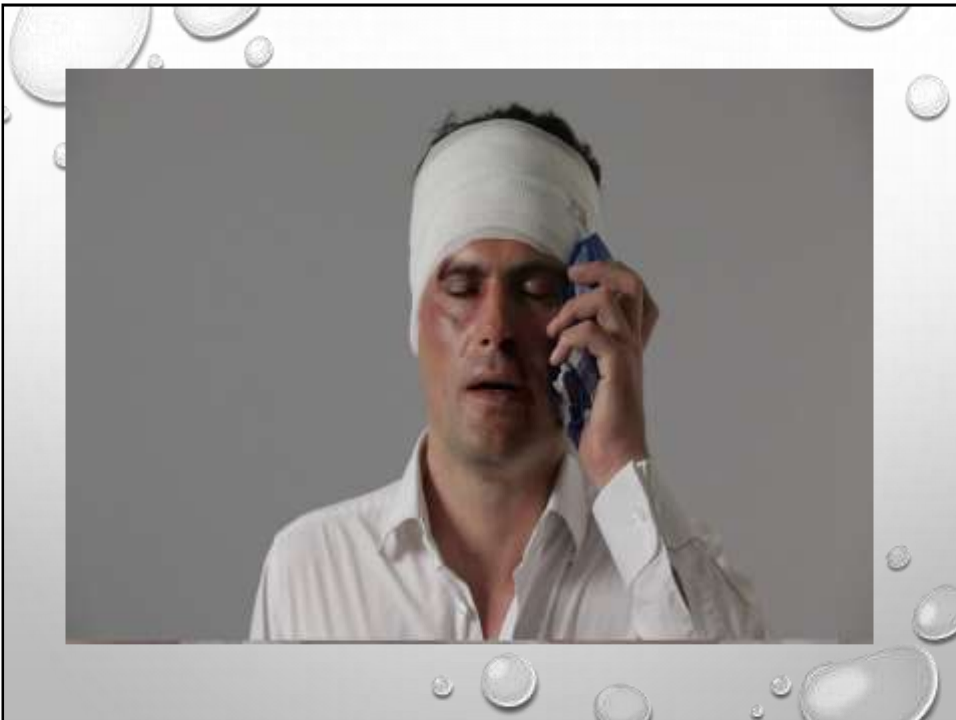

CONTROL ANGIO





BAM!
SUCCESS

THANK YOU