* Cardio revision:-

① ACS → ST E ACS if there is 100% A. occlusion... [STEMI]
→ non STEMI or unstable angina if the occlusion 90% [not totally]...

- ST E elevation in V1 → V4 indicate:- Anterior MI [LAD occlusion]
- Pt presented to ER with MI we do Irg PCI and we find thrombus in the lf circumflex A. So we find ST elevation in V5 - V6 ↳ lateral leads...
- Pt presented with severe chest pain [Burning or heavness in charachter] with sweating - the most likely finding in ECG is S-T elevation...

② HF → Rt side HF :- has pleural effusion...
↳ [CHF → has Anasarca]...
↳ lf side HF :- has pulmonary congestion...

* AS pt has lf sided HF so complian from :- orthopnea - dyspnea - Syncopy - Chest pain - [worse complian]
→ ~~Survival~~ rate of AS pt + complian from dyspnea :- 2 year.. [50%]
↳ mortality.
[may lead to HF]

* Heart Murmur :- in Aortic Stenosis murmur best heard in 2nd CC...
- in MS and MR murmur best heard in the apex of the heart [lf sided] radiate to the (mostly) axilla. except in MR + rupture of papillary M. lead to sternum or back radiation.
Ant. papillary M. ↖ ↗ Post. papillary M. rupture...

* 66 y/o male pt has dyspnea 3days ago + pluritic chest pain + has hx of recent surgery [cholycystectomy] + no قاعد بالبيت
the most likely diagnosis is :- PE
(~~Studies Score~~...

*wells score of PE:-
- un explained dyspnea [3point]
- Clinical evidance of DVT [3point]
- bedridden [last 4 weeks] → [1.5point]...
- tachycardia [1.5 point]
- chest pain [0.5 point]

→ if there is more than 6 points has high propability for PE...

* pt presented with severe chest pain radiate to the back + has hx of controlled HTN the most likely diagnosis is Aortic dissection...

[In AD mainly we hear early diastolic murmur in the IP sternum border (AR)]...

* pt has presented to ER complian from dyspnea - orthopnea + has tachypnea - LL edema - Irregular irregularity pulse + has congestive Beck vein...
↳ AF
↳ Canon V wave
↳ absent A wave...

→ AF mean loss of Atrial Contraction → loss of A wave...

[we can see 3 waves:- ① A wave : Atrial Contraction...
② V wave : ventricle //...
③ C wave

→ if there is delay of JVP peack from pulse indicate V wave ← وجود لو كان A wave

* Most common side effect of ACEI is:- dry Cough...
* Most common side effect of CCB is:- Angioedema...

* most common side effect of spironolactone is Hyper kalemia...
Renal failure or $\uparrow K^+$ ال ECG تظهر تغيرات حتى لا تعطى المريض

[So in Renal failure pt + Cr: 2.5 we can give him ACEI
But if there is hyperkalemia it's contraindicated]...

* 16 y/o pt - BP: 165/85 - Short stature pt + has neck web the most likely diagnosis:- Coarctation of Aorta...
+ has radio femoral delay
we can hear mid diastolic or late systolic murmur radiate to the Back...

* 61 y/o presented to ER with retro sternal chest pain + sweating + ST depression this indicate ~~non STEA~~ non STE ACS...
then we give him Aspirin + O2 therapy + Sub lingual nitrate
[become stable] the next step is: Anti coagulant
لحتى يعمل PCI

* 50 y/o pt has BP: 160/60 + regular Heart beat + has decresendo murmur this indicate: Aortic regurge...
[systolic] [we find in this pt double Duroziez murmur in + pistol shot [femoral Pulse]. in the femoral artery] D+S murmur...

* Female pt has 50 y/o presented to ER in early morning or mid night with severe chest pain [retro sternal - radiate to both arms] + sweaty + we find ST elevation in All leads then after 15 min. they resolved what the mostlikely Diagnosis:- Varient Angina [more likely in female pt + smoker]...
+ has emotional Stress

* 19y/o pt has central Chest pain + loud mid systolic murmur in the retrosternal edge [~~indicate AS~~] + has Jerky pulse the most likely diagnosis:- HOCM...

لازم أعرف AS , HOCM وإيش الفرق بينهم

Auscultation:-

HOCM	AS [Both has mid systolic M.]
① jerky pulse...	pulsus parvus et tardus... [slow raising pulse]
② the murmur not radiate to any area	the murmur radiate to the carotid A.
③ normal S2	muffeled S2
④ Best heard in the lf sternal border	Best heard in the 1st Aortic area...

* The Drug of choice for HOCM ~~HH~~ is:- B Blocker or Amidarone
But the nitrate and digoxine contra indicuted...

* pt presented with ~~Ant MI~~ Acute inf. MI [ST elevation in lead II and III and avF] + take HH in ER + enter to PCI what the most likely occluded A:- lf circumflex A. or RCA...

→ we can diff. between the lf. circumflex or RCA occlusion in the ECG by:-

RCA ~~A~~	lf circumflex
① if the ST elevation in lead III more than lead II...	if the ST elevation in lead II more than lead III...
② in Rt side ECG we find ST elevation in V4 [Proximal] ④	in Rt side ECG we find Iso line ST segment in V4 [distal]

* any pt with Acute inf. MI we should do Rt side ECG
+ dorsal side ECG [2 specific localization mandatory]...
... to confirm or exclude the dorsal MI + حتى نفرق بينه الجانبية المنتهية

* The main ## of HF :- ① Diuretic [laxics]...
② B. Blocker...
③ ACEI or ARBS...
④ SGLT2 inhibitor...
⑤ spirenolactone...

x pt has acute old MI [Ischemic], has 70y/o, presented with dyspnea - orthopnea - LL edema., 40% the ejection fraction
the ~~not~~ indicated drug is:- ~~contrast~~ indicate HF
Calcium channel Blocker...
→ normal ejection fraction :- 50 - 65%.
→ if the ejection fraction ↓ 35% called Heart riff.

x pt has Rheumatic heart dz + has mitral stenosis + AF + HF + old stroke + CoPD [the mian eitiology is Rheumatic heart dz]...

* 30y/o F. pt Complian from dysprea - palpitation + we hear mid-diastolic murmur in the apex this indicate MS + ~~or~~ ~~accuate~~ Symptomatic
+ accnuated S1...
we find in the Echo → MS the next step is:- indication for surgery
[valvoplasty or valve replacment]
* The indication of valvoplasty:- ① valve area < 1.5 sqcm [M valve]
// // < 1cm [Aortic valve]
② main gradient high...
③ severe symptoms despite ttt
④ other Cardiac Surgery need.
⑤

⑤ Pulmonary HTN if it >50 mmHg ..etc

* The indication of mitral valve replacment:-

① Mitral regurgetation... [≥grade 2]
② severly calcified valve + non Mobile valve...

* The valvo plasty types:- ① open ② Closed by balloon...
حتى نشوف لاحق T.E Echo حتى نحدد ال method نعمل بالاول
thrombus indicate for open valvoplasty [closed surgery يعني لازم].

* pt has severe MS without MR + no heavy calcification +
we find If Atrial thrombus in T.EE so the ~~most~~ next step is:-
Open valvo plasty...

* In chronic _ severe pulmonary HTN there is ↑ prolifration of
lung cells → ↑ resistance → ↑ BP... [we give them Activin
receptor inhibitor]...

* Most likely finding we see in pulmonary HTN:-
[due to Rt V. hypertrophy So we can see:]
• epigastric pulsation or If Parasternal pulsation or Pulmonary
Artery pulsation or JVP pulsation...
• accinuated S2 in the [most important sign]
pulmonary area...

* di The cardiomyopathies [1-2 Q.]
- dilated... [all champers are dilated]...
- Arrhythmogenic...
- Hypertrophic...
- ~~Congested~~... Restrictive...

* In dilated [DCM] ~~Hyper~~ cardiomyopathy there is :- dilation in all cardiac champeres this lead to :- ① Hypo Kinesia...
② ~~2ry~~ MR or TR...
③ weak Heart [↓ejection fraction]
④ eccentric Hypertrophy...

* ↑ pressure gradient → ↑ risk for obstruction...
* ~~The HOCM has~~

* The sign of HOCM :- ① Asymmetrical septal hypertrophy... [ASH]
② venturi effect → lead to Systolic Motion (Ant) toward the septum [SAM]
③ MR due to venturi effect...

Imp * The Auscaltatory finding in the MS [3-4Q]...

* what is the 1ry indication for ~~ADT~~ ~~DP~~ AICD [automatic implantable cardioverter defibrillator] to prevent the sudden cardiac arrest is :- HOCM + old MI [acute]... (mc) (befor the arrest)
[But the 2ry indication → for any surviveed arrested pt]...

→ All survivers of sudden cardiac arrest are indicated for AICD except → if the cause correctable as hyperKalemia...
→ acute MI + ~~tre~~ teel...

→ Any pt has hx of acute MI + the ejection fraction < 35% after 3month we should put AICD [1ry]...

* The CRT give DC shock + strengthing the muscle...
↳ Cardiac ReSynchronization therapy...
↳ Atrial Contraction and ventricular relaxation...

* if the Rt ventricle Contracted before the lf ventricle lead to lf Bundle Branch Block...

Called Atrioventricular synchronization...

* in advanced HF the heart work non Synchronize espically if there is Lf BBB...

Cardia resynchronization by راح نعيد ترتيب ال CRT...

MCQ * The indication of CRT :- ① if the ejection fraction < 35%...
② presence of Lf BBB... [in ECG]
③ Non Synchronized Heart...
④ Symptomatic pt despite medical managment

* 70 y/o pt, has hx of HF post MI + Symptomatic even after taking the medical ttt _ the EF = 20% _ has very wide Complex in ECG the Best ttt for this Pt is :- CRT + ICD
(Lf BBB) (to give DC shock) ... حتى يقوم الجهاز بتنشيط القلب

* The last choice of HF ttt is lf ventricle access device...

* 35 y/o pt has AF, palpitation for 1week so we can do :- Rate Control + TEE to see if there is no thrombus
then we can do rhythm control...

* unstable AF pt + absent Pwave → has shock need DC shock
* Stable AF pt → if the Complian < 48hr we can do Rate and Rhythm Control. But if > 48 hr we can do Rate control then TEEcho...

* 35 pt has palpitation for 5days , BP: 120/75 [stable]
in ECG we find AF [HR: 120-125] which tt is
the Best option for this pt :- Rate control then TEE +
anticoagulant...

* pt has chronic AF we should ~~give the~~ measure the
Chad S 2 score → HTN - Stroke - DM - age >75 - IHD - HF
1Point 2Point 1Point 2Point 1Point 1Point
↳ if it >2 point need anti Coagulant tt

* 1Point 1Point 1Point
To y/o pt has HTN + DM + severe mitral stenosis ; A
the Best tt warfarine...

* MI Complication [1-2 Cp]

Sep 19 * The indication and Contraindication of thromboly tic therapy

* To diagnose the HF without ECho there is Framingham
criteria...
→ Major criteria:- orthopnia - PND - Pulmonary edema...
→ Minor criteria:- Dyspnea - distented neck vein - ~~Hepato~~
Cripetation - The Hepato Jagular reflux is Major criteria...