

# Alaa Naim lect 2

Apex beat  $\Rightarrow$  Transitional Zone between Inspection & Palpation  
(نقطة وسط)

Diffuse  $\rightarrow$  Rt ventricular hypertrophy  
pulmonary hypertrophy

Localized & shifted  $\Rightarrow$  Lt hypertrophy  
Localized & its site  $\Rightarrow$  Normal

• heave & Thrill  $\Rightarrow$  Parasternal

due to p. overload  $\leftarrow$  Sustained  $\rightarrow$  Volume overload  
 $\rightarrow$  pressure overload  
 $\rightarrow$  Stenosis Pulmonary hypertension  
Non-sustained  $\rightarrow$  Tri cuspid Regurgitation

No Percussion on heart Examination.

after palpation  $\rightarrow$  Auscultation

Stethoscope → bell → low bralging sound (S<sub>3</sub>, S<sub>4</sub>)  
 → diaphragm → high bralging sound (S<sub>1</sub>, S<sub>2</sub>)

Auscultation /

5 areas, 2 radiation, 3 maneuvers

5 areas /

- ① mitral area → apex.
- ② pulmonary → 2nd left Intercostal space
- ③ 1st aortic area → 2nd Rt Intercostal space
- ④ if 3rd Intercostal space → 2nd aortic area
- ⑤ 4th IC, left side → tricuspid valve

lup, dub → lup is loud more than dub

Closure heart value. ① ← mitral / Tricuspid → S<sub>1</sub> <sup>first heart sound</sup> lup (systole)

② ← Pulmonary aortic → S<sub>2</sub> dub.

left Pulmory area → Pulmonary hypertension → Accentuated S<sub>2</sub> → hypertention (HTN)  
 1st aortic area → Rt Systemic hypertension → Accentuated S<sub>2</sub> → hypertention (HTN)

Pulmonary stenosis → left pulmonary area → S<sub>2</sub> (Muffled) → Stenosis  
aortic stenosis → Rt aortic area → S<sub>2</sub> (Muffled) → Stenosis

base of heart.

Mitral Stenosis accentuated  $S_1$

① Carcinoid  $\Rightarrow$  aortic stenosis

3 manoveras /

① Holding respiration after forced inspiration

جریڈ ۱ Venous return ۱۱

# 9th R+ tricuspid murmur increased with inspiration except the congenital pulmonary stenosis..

Inspiratory pressure is low  
Pressure is high  
Tricuspid valve is closed

④ نظم صوت الخرفيف يفتح في الشحار فلو زاد مع ان expiration يفتح  
 ② Mitral stenosis...

③ Holding respiration after Forceful Expiration  
 → aortic regurg تفتح في الشحار  
رطوبة في الشحار

discuss) مurmurs 8/10 الاحاديث

lup dub ← heart sound بدا نطق  
murmur  
acut sound

Murmur / turbulent blood flow through the heart [BV]

abnormal sound

في القلب

Turbulent يكون في الشحار

- ① stenosis (ضيق في الشحار)
- ② regurg (تفتح في الشحار)
- ③ Shunt (Connection) (تفتح في الشحار)

Pressure Gradient → the more, more severe stenosis  
 lead to turbulence flow in the ventricle ← Aortic valve is stenosis  
 ... severity ... شدة ... كذا ...



Grades of murmur

\* If ventricle BP:- 120/90...  
 \* Aorta BP:- 120/80...

- Grade ①: need expert to hear it [fine sound]
- Grade ②: can hear (audible) but can't differentiate
- Grade ③: loud, All can hear it
- Grade ④: thrill + loud [thrill]
- Grade ⑤: partial putting of stethoscope can hear [thrill]
- Grade ⑥: thrill (thrill) palpation (palpation)

(c)

- in the

S2 muffled

in the

pulsus parvus.  
tardus.

↳ Resistance of B.F in the Aortic Artery..  
[L.V BP > A.A BP]

[ If  $V_{BP} > A - A_{BP}$  ]

[ If  $VBP > A - ABP$  ]

وَقَفَّ

وَقَفَّ

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in children

in children

in children

in children

in children

in children

in children

in children

in children

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in children

## Aortic Stenosis

heard in 1st aortic area.

radiate to Carotid A

muftelad sz

Pulsus tardus [parvus]

Le deluge pulse..

Le deluge pulse..

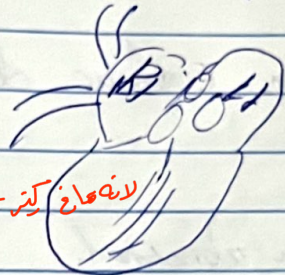
④ Innocent murmur → grade I, II [faint]

✓ children  
✓ pregnancy  
✓ anemia

Hyperdynamic Circulation  
murmur II B grade I, II  
Pulmonary area II grade I, II  
thrill grade I, II  
Systolic grade I, II  
Position II inspiration

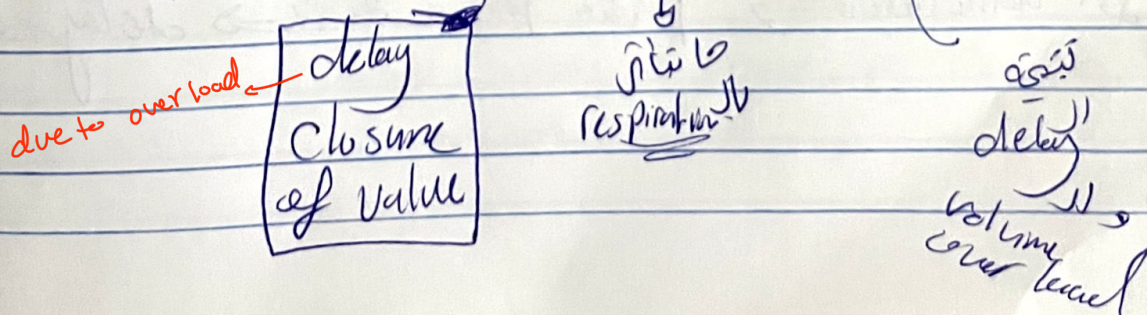
## ⑤ ASD (atrial septal defect)

The murmur  
Not caused by  
the shunt → gradient  
(طافي فرق ضغط)  
L & R atrium



- The murmur caused by volume overload on pulmonary → stenosis
- heard on pulmonary area

In PS, the S<sub>2</sub> sound is split  
But in ASD wide fixed split S<sub>2</sub>



المنطق في حالة ال Inspiration ال Venous Return يزيد والنتيجة تزيد  
ال murmur على ال Pulmonary flow زيادة

ولكن equilibrium في حالة ال Venous Return ال Inspiration  
↓  
Shunt في حالة ال pulmonary flow  
بين ال pulmonary flow و Venous Return ال Shunt  
يكون في حالة ال equilibrium  
والنتيجة ثابتة

between lead to fixed  $S_2$  shunt venous return.