Toppersnotes
Unleash the topper in you

NEET-PG

PART-B

VOLUME-V

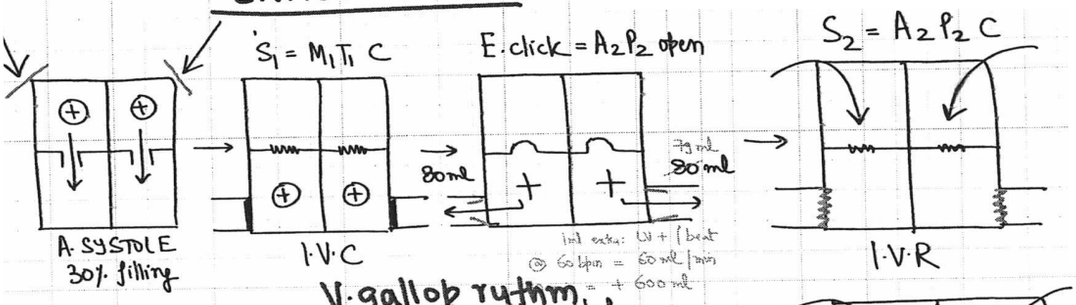
Cardiology, General oncology

SIERRA INNOVATIONS
Private Limited

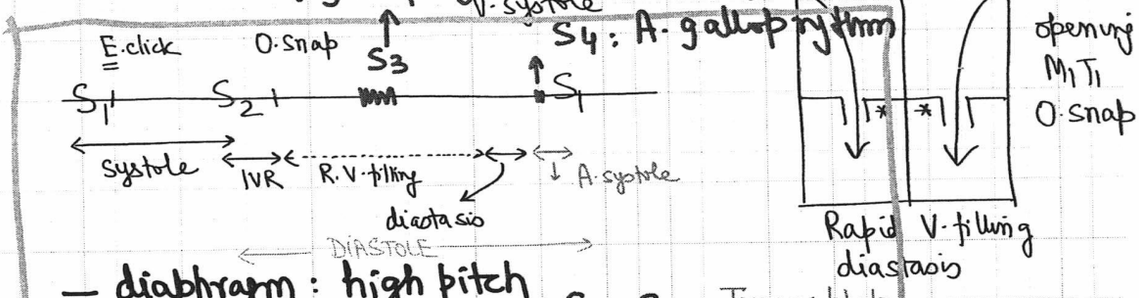
CARDIOLOGY

GENERAL ONCOLOGY

CARDIOLOGY

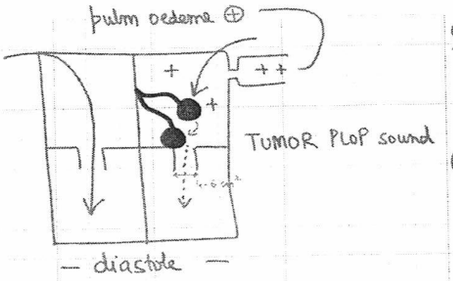


V. gallop rythm
V. Systole



- diaphragm : high pitch
- Bell : low pitch : S_3, S_4, Tumor plop.

* PRE-SYSTOLIC H. SOUND = S_4



(↓ CO)

♀: EXERCIZE INTOLERANCE
† DYSNEA ON EXERTION
* PLATYPNEA : @ dypnea ↑ sitting position

O/E : Tumor plop sound *
low pitch : Bell

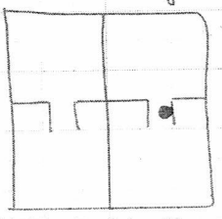
IOC: T.E.E

Rx ⇒ (C.T.V.S) Sx Resection

MC Tumor = 2° : Oat cell
HEART Ca Breast
Malignant melenoma

MC Tumor 1° malignant = ANGIOSARCOMA
HEART

benign Tumor heart = A. MYXOMA



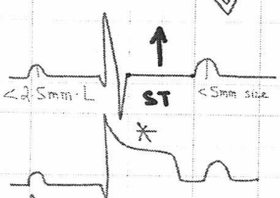
TUMOUR ORIGINATING HEART VALVE
↳ Papillary ELASTOMA
Rx = PROSTHETIC VALVE deployed

TB PERICARDITIS 3

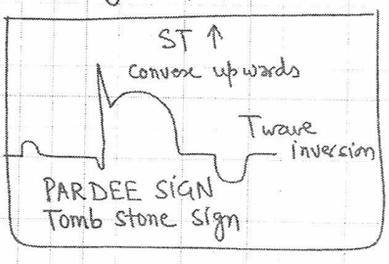
LG FEVER, ↑ evening Rise ↓ Temp
wt loss, night sweats
CHEST PAIN: DIFFUSE, CHEST
O/E: PERICARDIAL FRICTION RUB: PERSISTS ∈
PLEURAL RUB
I, E, I+E, Breath holding ✓ Breath holding

MI

1. ECG: ST ↑



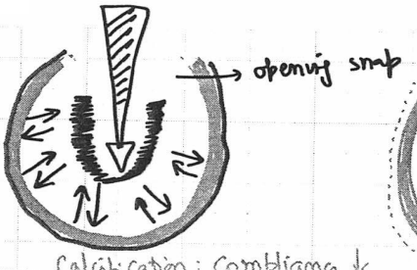
ST ↑ concave upwards



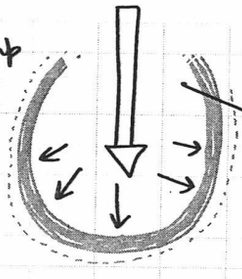
2. extrapulm. TB ⇒ gene XPERT
blood sample, Pericardial fluid
2hr: M.TB yes/no
(R): MTB = Rmp

3. echo = Pericardial effussion (+/−)
(m) = 20-50ml

Rx: A.T.T X 6 months



Calcification: compliance ↓
Constrictive Pericarditis

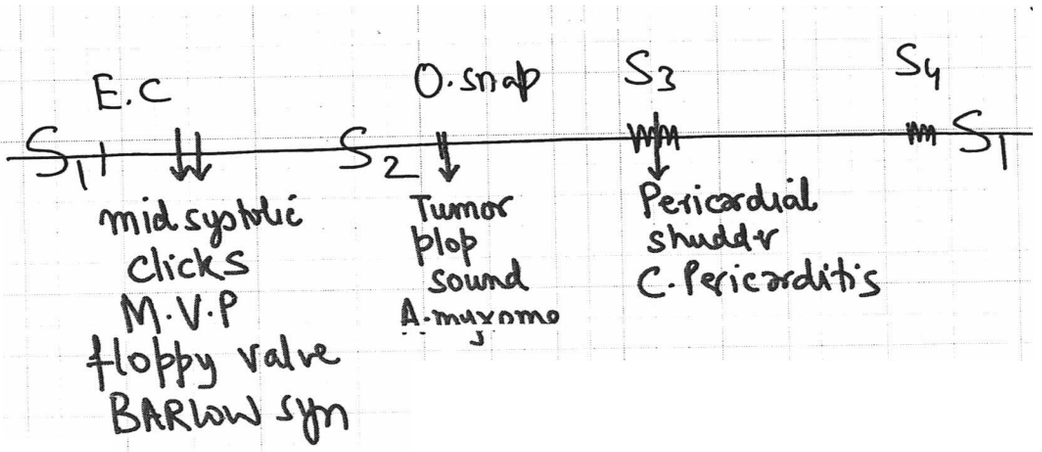


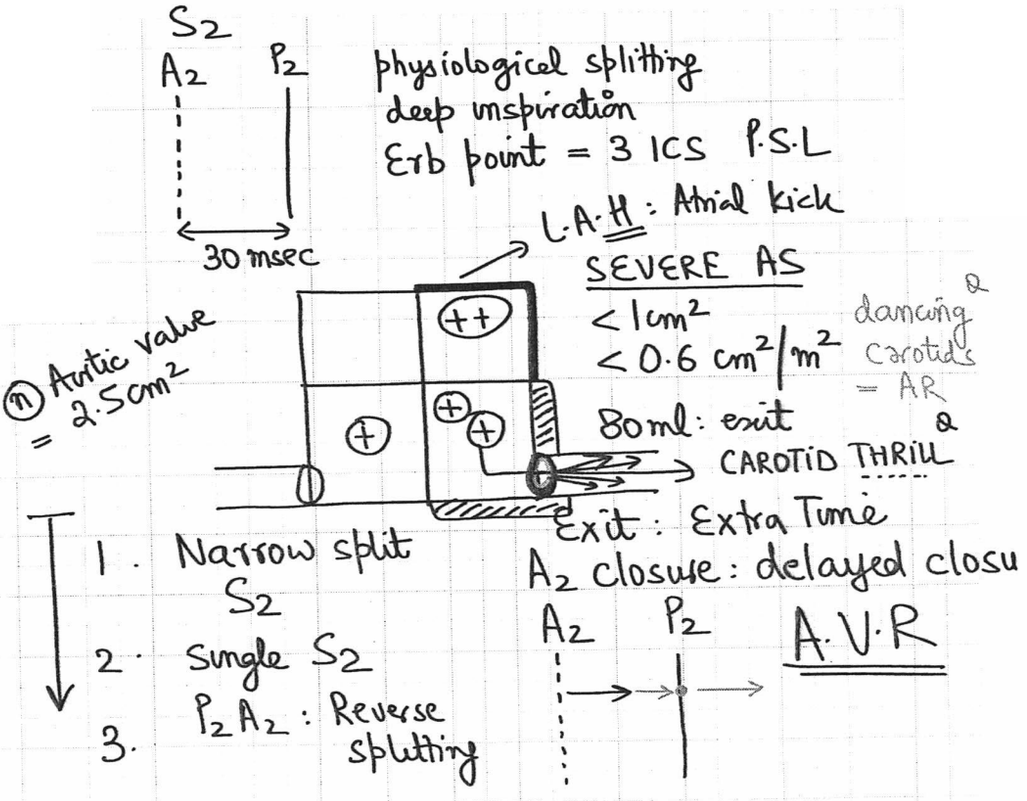
EDV
= 130ml
opening snap

4

PERICARDIAL SHUDDER / knock / shock
DIASTOLE
↓
high pitch

Mimics S3
↓
low pitch


E.C
O.snap
S_3
S_4
S_1
S_1
S_2
mid systolic clicks
M.V.P
floppy valve
BARlow syn
Tumor plop sound
A.myxoma
Pericardial shudder
C.Pericarditis

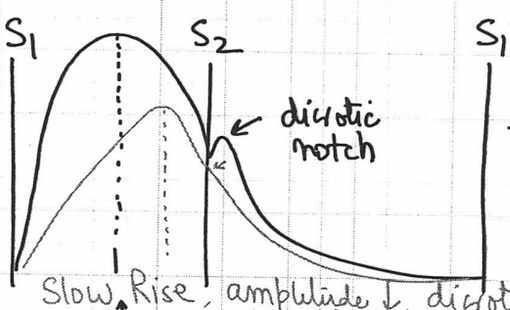

S_2
A_2
P_2
physiological splitting
deep inspiration
Erb point = 3 ICS P.S.L
30 msec
L.A.H : Atrial kick
SEVERE AS
< 1 cm²
< 0.6 cm²/m²
dancing carotids = AR
Aortic valve = 2.5 cm²
80 ml : exit
CAROTID THRILL
Exit : Extra Time
A_2 closure : delayed closu
1. Narrow split S_2
2. Single S_2
3. P_2A_2 : Reverse splitting
A_2
P_2
A.V.R

AORTIC STENOSIS

Why? infant : BICUSPID Aortic valve
child : RHEUMATIC
adult : SENILE CALCIFICATION

C/F: Triad
S : SYNCOPE ON EXERTION
A : ANGINA (LVH : ↑ O_2 demand)
D : DYSNEA

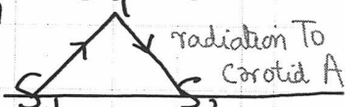
O/E: Pulse
AS



Slow Rise, amplitude ↓, dicrotic notch ⊖

PULSUS TARDUS et PARVUS, anacrotic pulse Q

S_4 : ⊕ : L.A.H



Ejection systolic murmu
intensity ↑|↓
CRESENDO- decrescen

apex beat : displaced, heaving (Forceful)
double apical impulse : 5+6 ICS
S_2 : narrow split / single / Paradoxical split
REVERSE

* SEVERE
IOC: AS: valvular ⇒ T.E.E
✓ ORIFICE ↓ < $0.6\,cm^2/m^2$
✓ TRANSVALVULAR gradient ⇑ ⇒ > 40 mm Hg (LV - Ao)
✓ Ejection velocity ⇒ > 4 m/sec (ⓝ = 1 m/sec)
(Concomitant Triple vessel disease)
* Coronary angiography

AS SUPER-SEVERE ⇒ Transvalvular gradient > 55 mm Hg
// // ⇒ ejection velocity > 5.5 $\frac{m}{sec}$

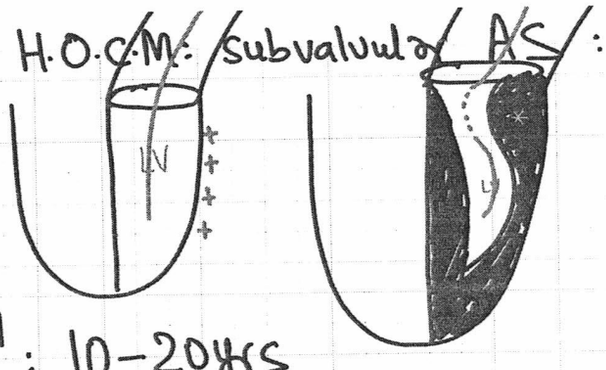
Rx: SYMPTOMATIC SEVERE AS
⇒ **A.V.R**

Asymptomatic SEVERE AS

Baloon dilatation = CI.
(Risk of embolic STROKE)

Pediatric SEVERE AS ⇒ Baloon dilatatio

H.O.C.M: subvalvular AS : AD, ch 14 # β myosin gene



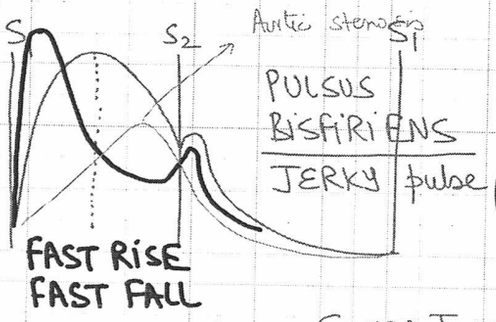
* asymetrical septal HYPERTROPHY
* diastolic malfunction
* L.V. outflow obstruction dynamic

♂ : 10–20yrs
1. DYSNEA
2. CHEST PAIN
   : subendocardial ischemia
3. EFFORT INTOLERANCE
4. FOOTBALL MATCH : → RUNS FAST
   subendocardial ischemia ↑
   Why? → Ischemic Ventricular fibrillation
   Collapsed
   cyanosis, pulseless
   death
5. Sudden Cardiac death in sibling

Medical CERTIFICATE : FITNESS

Pulse ⇒

* HOCM ≡ ↓ POWER ↑



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UNFIT FOR RECRUITMENT

POLICE
ARMY
LOCO-DRIVER

S_2 ⇒ OBSTRUCTION : EXIT: EXTRA Time
A_2 : CLOSE LATER
NARROW SPLIT

O/E

* 1. PULSUS BISFIRIENS
2. APEX BEAT: DISPLACED, HEAVING
Double ampical impulse
3. S_2: narrow split / Paradoxical split
4. S_4 ⊕
5. Ejection systolic MURMUR

IOC ⇒ T.T.E : LV wall THICKNESS ⇑
: S.A.M systolic ant mvmt of Mitral valve

Rx: HOCM : DOC: PROPRANOLOL
(↓ HR : ↓ O_2 consumption)

H/O recurrent
S.C.D ⊕
Syncopal attacks ⊕
LV free wall > 30 mm
: I.C.D
Read ECG
analyse ECG
ab(n) rythm detection
↓
DC SHOCK
Implantable cardioverter defibrillator

OR oral disopyramic

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Sx : HOCM

MYOMECTOMY

ALCOHOL BASED
Septal ablation ✓

DOC = PRPNL

TOC = I.C.D [↓ mortality due to S.C.D]

25yr. FOOTBALLER : elbowed in chest by the rival
↓
collapsed | death

BLUNT TRAUMA TO CHEST
⇓
COMMOTIO CORDIS : V. fibrillatio

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HOCM: pulm oedema ⊕
iv FUROSEMIDE

ACEI
NTG → Venous Return ↓
Rt inflow ↓
LV inflow ↓↓
SBP ↓↓ = death

* digoxin, ACEI, ARB, CCB, NTG, furosemide = CI in HOCM
except: PROPRANOLOL
VERAPAMIL : AV nodal delay ↑

Q

20 yr, chest pain REST
=
S.L. NTG
Chest pain ↑↑
SBP ↓↓ : death

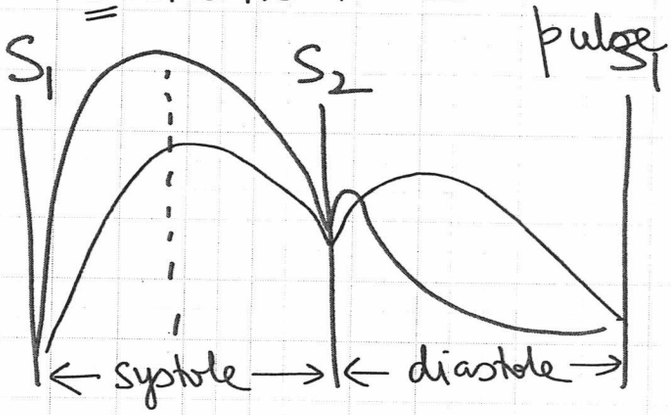
HOCM

Coronary blood flow ↓

1. HOCM : MC | AD, chl4 #, β myosine
2. DCM → | Alcohol, SARCOIDOSIS, duchenne's
3. RCM : RARE | amyloidosis, Radiation exposure

PULSUS BISFIRIENS

DICROTIC PULSE : Twice beats pulse



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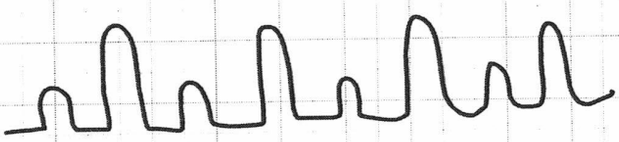
A	anacrotic pulse	AS
B	BISFIRIENS	HOCM
C	Collapsing, Corrigan pulse	AR
D	dicrotic	DCM

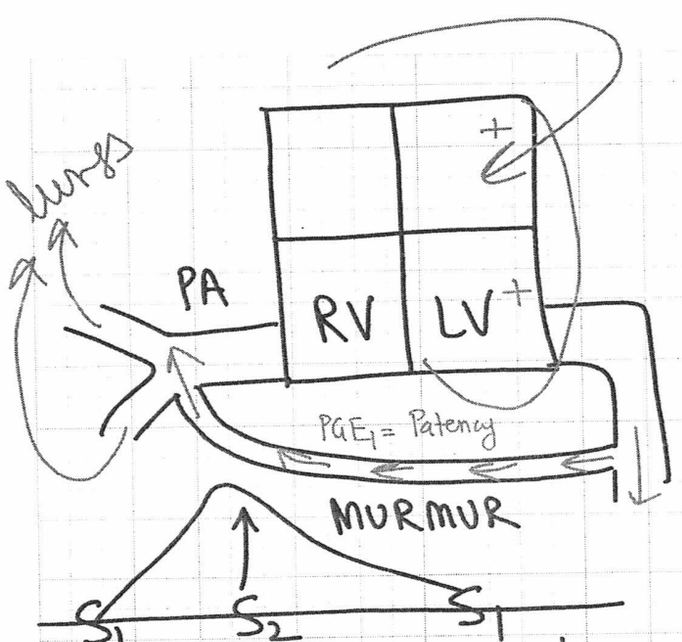
Water hammer



weak strng

PULSUS ALTERANS

* LVF



Patent ductus arteriosus

LVF (L→R shunt)

Prc Term : birth

Term : 6 wks

Aorta

Effort intolerance

IRRITABLE

difficulty in b-feeding

diaphoresis ⊕

* ←systole→ ←diastole→

* Peaks at S_2

CONTINOUS MURMUR

O/E: → S_2 : A_2 P_2 narrow split

LVF exit: extra Time → | |

A_2: delayed

lungs ⇒ B/L FINE CREPITATIONS

Bi-BASILIAR CREPITATIONS ⇒ I.L.D

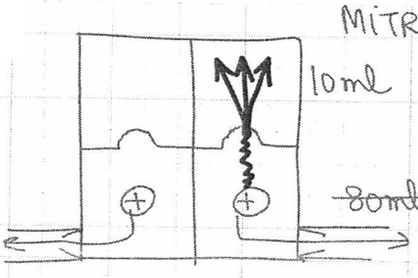
IOC: T·T·E

Rx: P·T = DOC indomethacin / ibuprofen
Term = Sx ligation
1yr child c PDA = Sx ligation

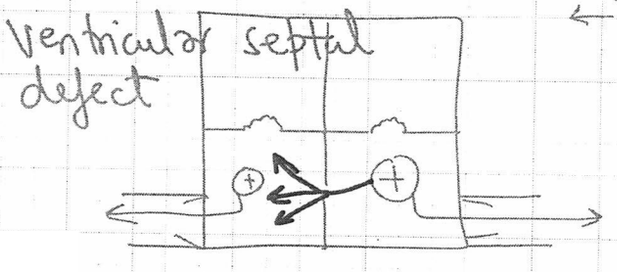
NARROW SPLIT S_2

1. AORTIC STENOSIS
2. HOCM
3. LVF : P.D.A
   ant. wall MI
   wet BERI BERI
   S. anemia
   Coxsackie B myocarditis
   → RBC Transketolase levels ⇓

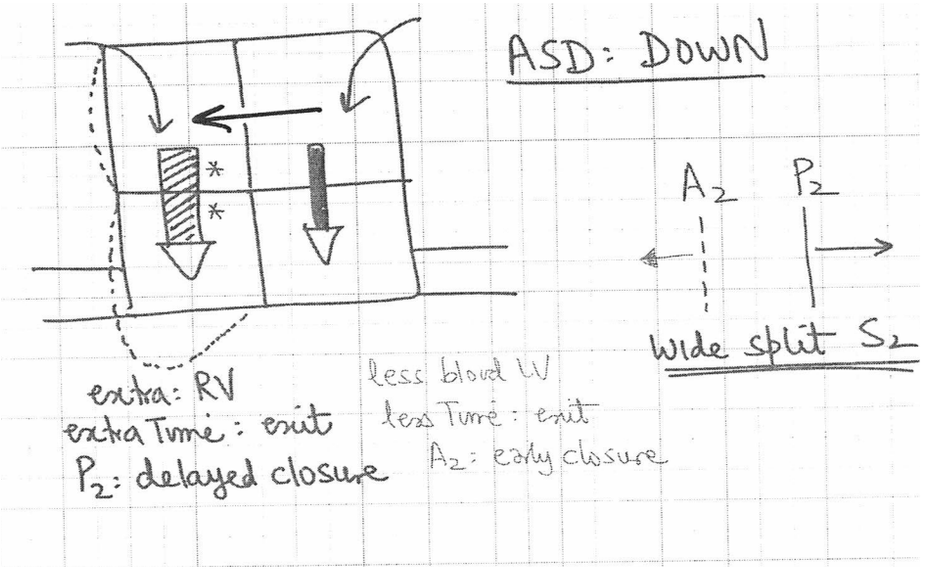
MITRAL REGURGITATION

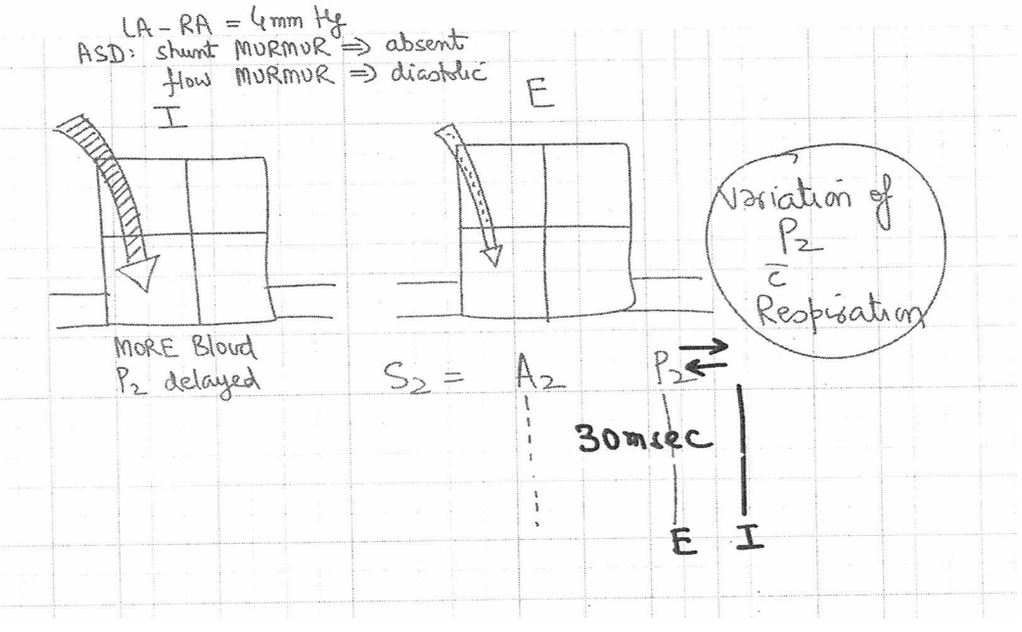


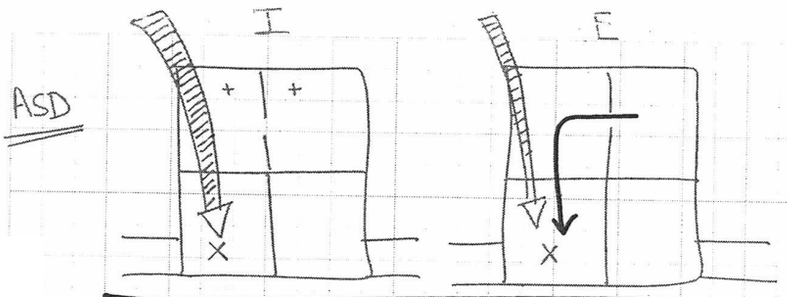
Wide split S_2



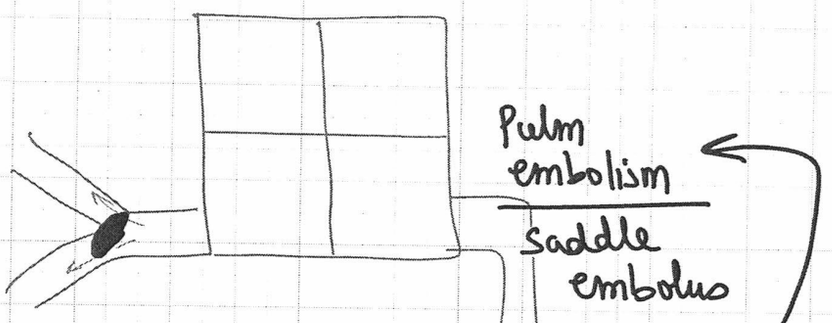
1. Perimembranous VSD : MC subType
2. muscular VSD : spontaneous closure : 3yrs
3. supracristal VSD c AR

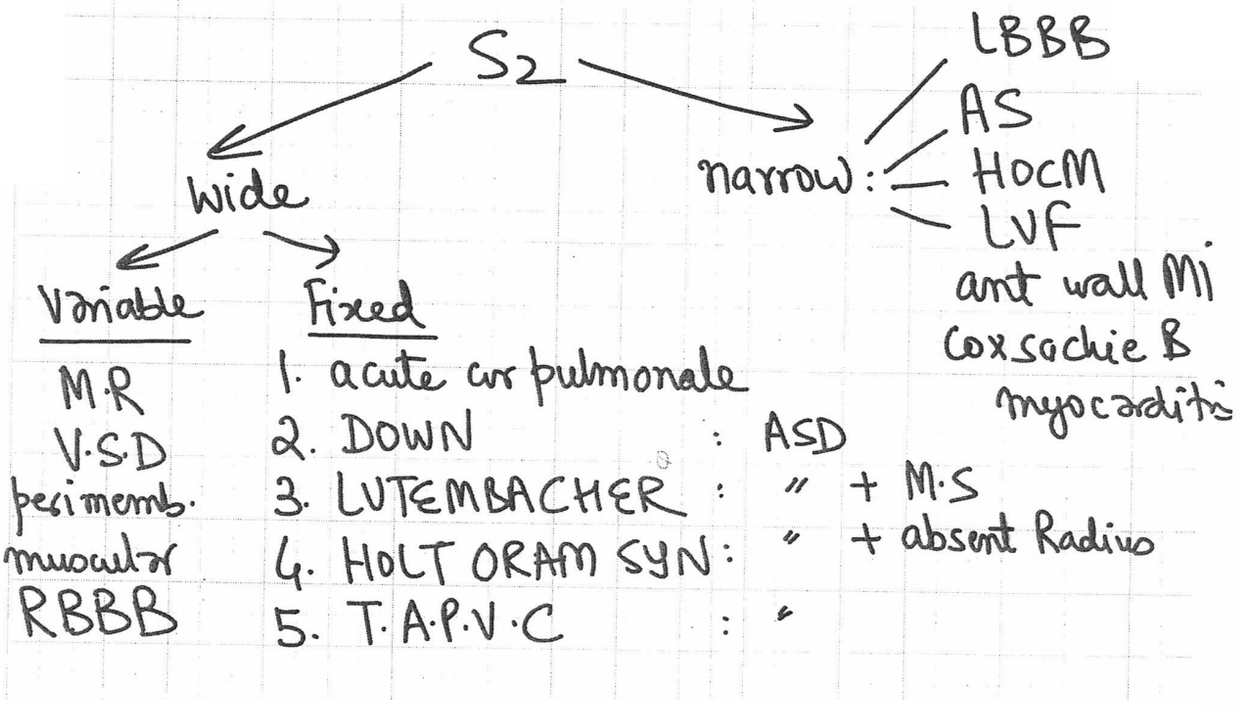

ASD: DOWN
A2
P2
Wide split S2
extra: RV
extra Time: exit
P2: delayed closure
less blood LV
less Time: exit
A2: early closure


LA - RA = 4mm Hg
ASD: shunt MURMUR ⇒ absent
flow MURMUR ⇒ diastolic
I
E
MORE Blood
P2 delayed
Variation of P2 ∝ Respiration
S2 =
A2
P2
30msec
E
I



ASD = Wide Fixed split S_2





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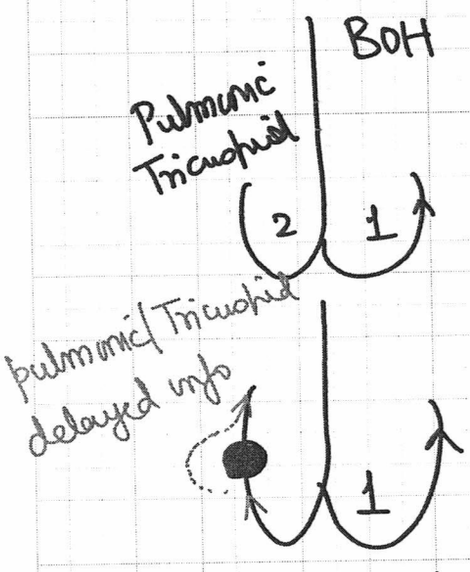


$S_1 = M_1\ T_1$

Aortic
mitral
CLOSURE $S_2 = A_2\ P_2$

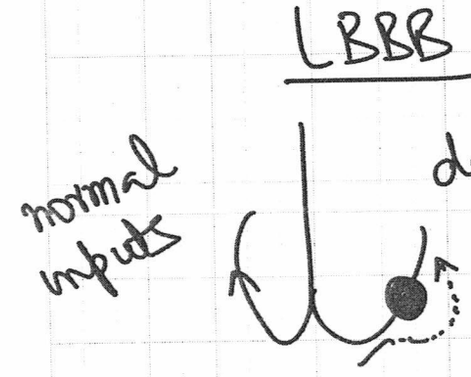
RBBB

Aortic Closure: on Time info
mitral

$S_1 =$ M_1 ✓ T_1

Wide split S_1

Wide split S_2 $S_2 =$ A_2 ✓ P_2



LBBB

delayed info: M_1 ✓
A_2 ✓

$S_1 =$ M_1 T_1

narrow split

narrow split S_2 A_2 P_2

S_1: intensity ∝ speed of Closure

Loud S_1 $\quad PR \propto \frac{1}{HR}$

1. Tachycardia: SHORT P-R interval
   : CHF
   : S. anemia
   : PHEOCHROMOCYTOMA
   : THYROTOXICOSIS
2. physiological: children, Pregnancy
3. MITRAL STENOSIS: LA pressure ↑
   Transvalvular gradient ⇑ FAST opening mitral valve
   FAST elastic Recoil "
   Calcified MS = mobility ↓ Recoil ↓: SOFT S_1
   TRICUSPID STENOSIS

SOFT S_1

1. Bradycardia: PROlonged PR
   Hypothyroidism
   SAN #: sick sinus syn
   AVN #: Complete H. Block
   BOTH #: Mobitz II H. Block
2. OBESITY, EMPHYSEMA (AIR TRAPPING)
3. CALCIFIED MS
   " TS
4. MITRAL REGURGITATION

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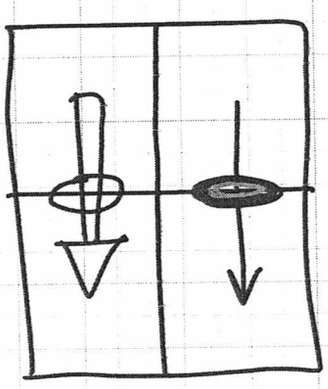
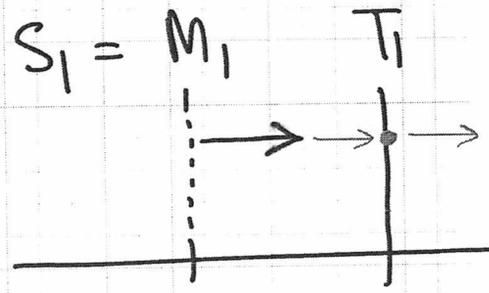


MS

Extra Time
delayed M_1

narrow split S_1
1. LBBB
2. MS



1. loud S_1
2. soft S_1
3. narrow split S_1
4. single S_1
5. Paradoxical S_1 split

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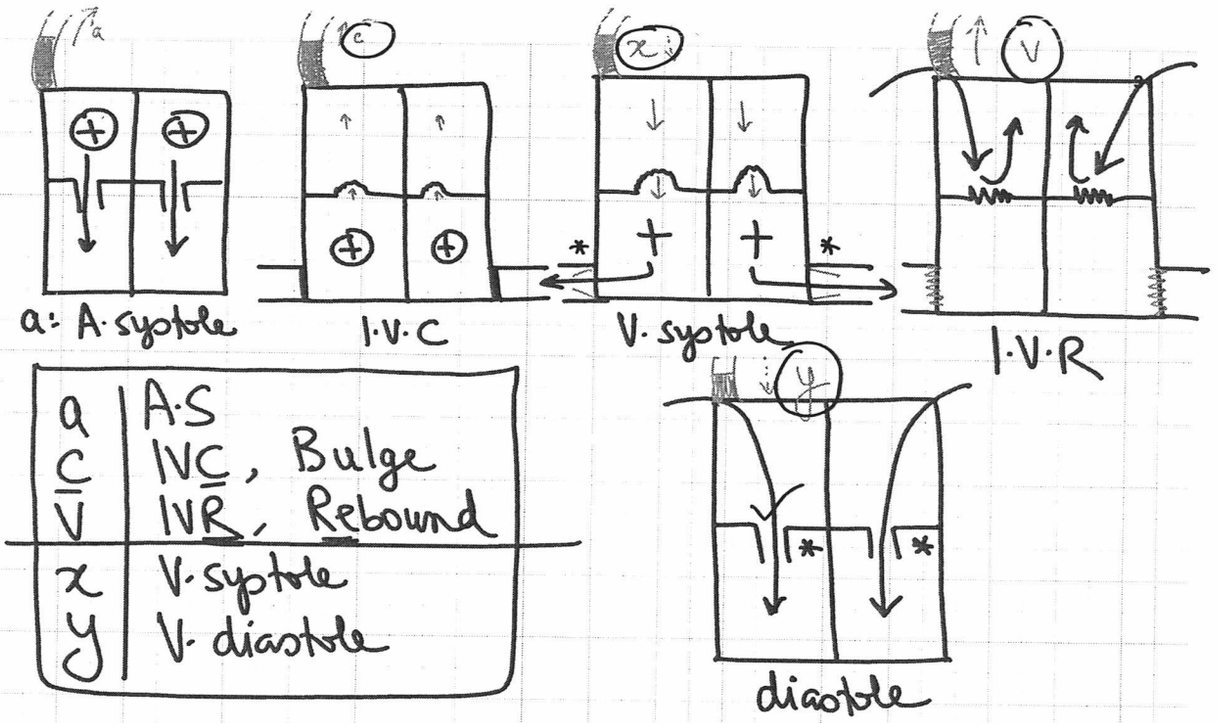
S_3	S_4
V. gallop rythm	Atrial gallop rythm
early diastolic	Late diastolic
Rapid V. filling dilated ventricles	OUTFLOW TRACT obstruction L.V.H, L.A.H ✓ R.V.H, R.A.H ✓
* CHF * DCM * Cor pulmonale RVF due to emphysema * acute cor pulmonale acute RVF due to MASSIVE pulm embolism	AS: left sided S_4 HOCM: left sided S_4 HTN: left sided S_4 PS: Right sided S_4 PAH: Right sided S_4



a	A·S
c	IVC, Bulge
v	IVR, Rebound
x	V·systole
y	V·diastole

INT. JUGULAR vein = 5–8 cm H_2O (32)

← TORCH: JVP pulsations seen: x, y

NEVER FELT.

manubrium STERNI

deep inspiration = JVP fall

* C·P + deep inspiration = JVP RISES

↓ (Compliance ↓)

Kussmaul sign

JVP r = 2× carotid frequency

C: C·P: calcification
R: RCM: FIBROSIS
R: Rt CHF = PE = ~~inf wall MI~~ SEVERE COPD