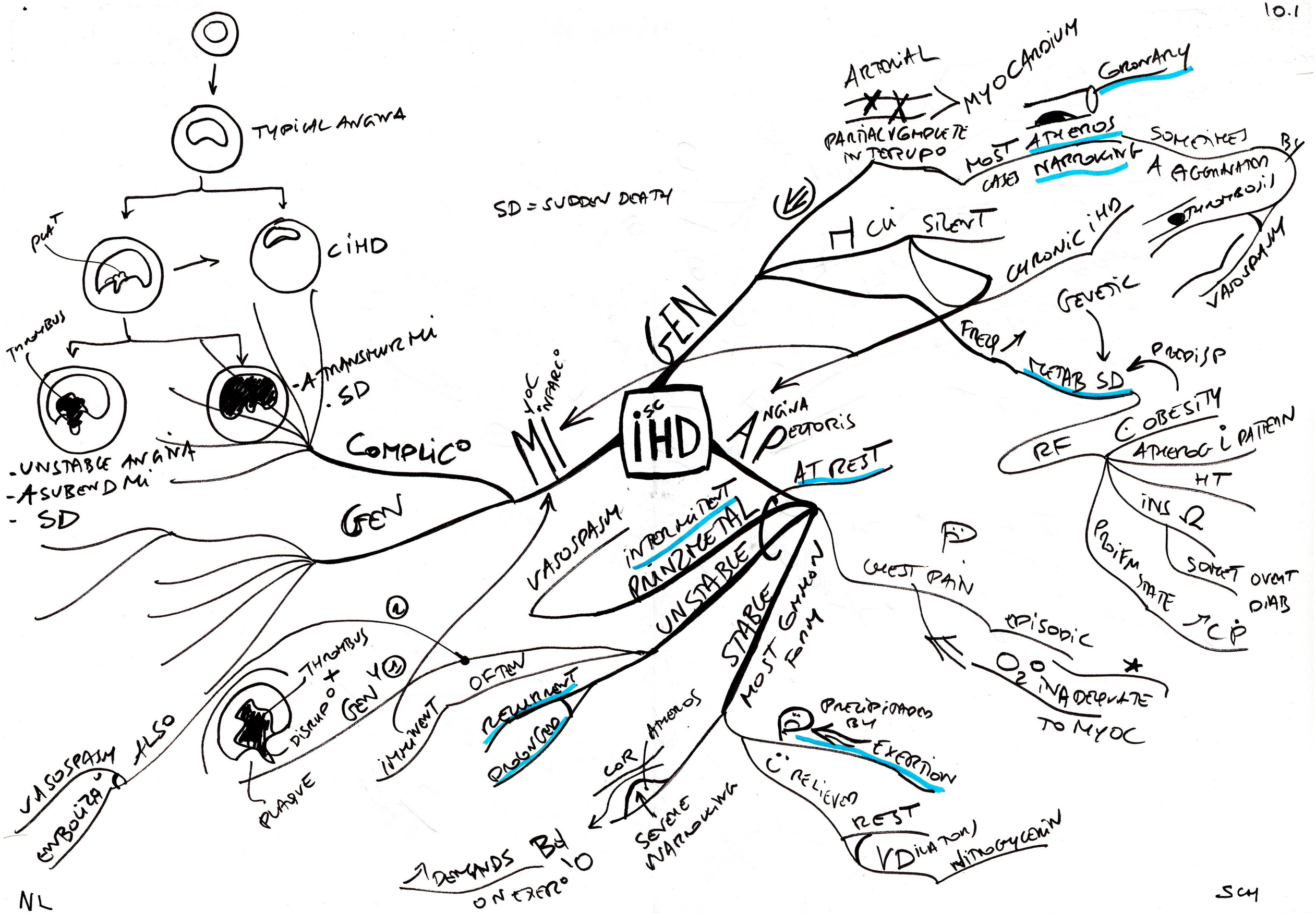
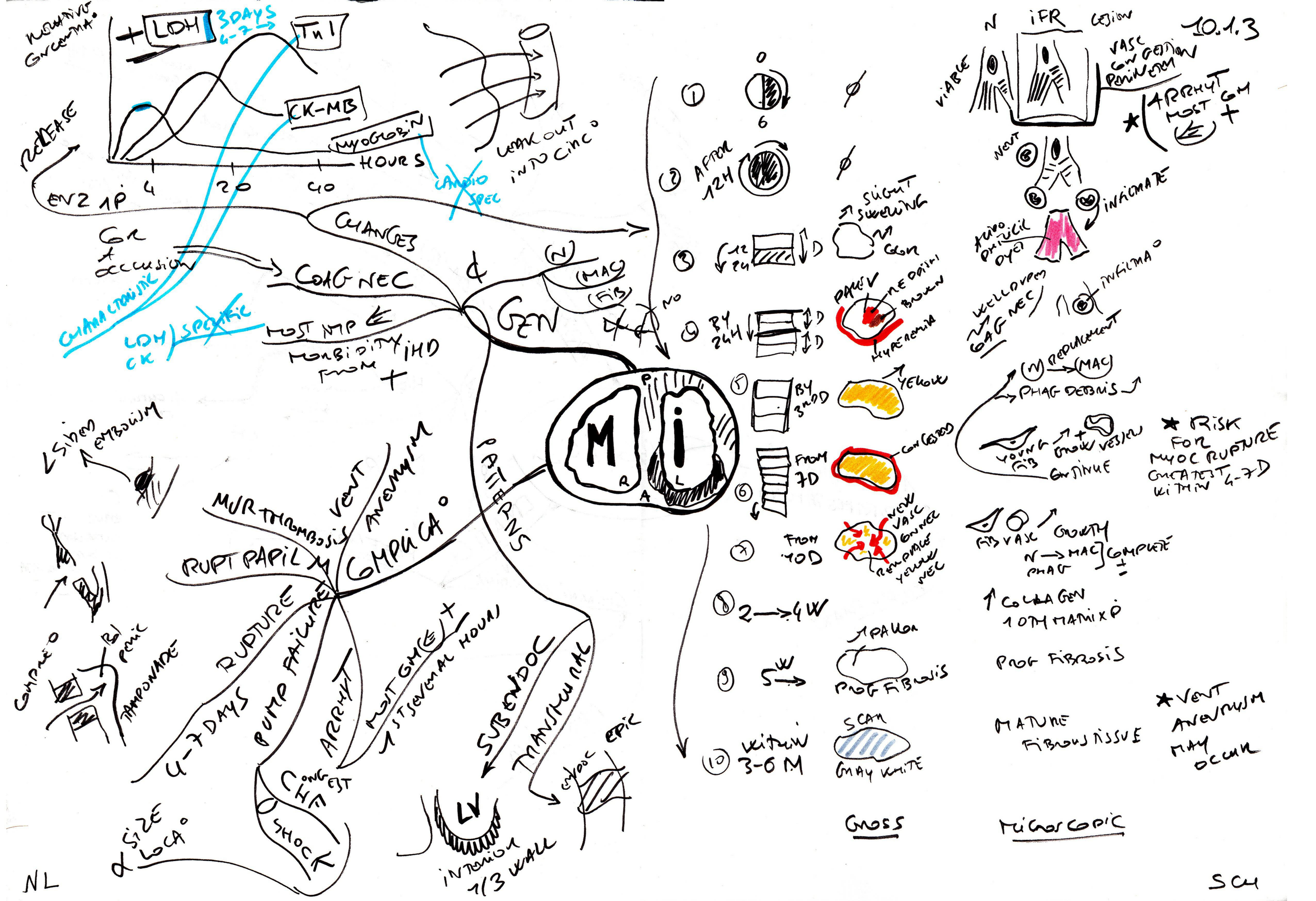
HEART

IHD
- RF
  - HEUM FEVER
  - ENDOCARDITIS
    - SOMETIMES FUNG
    - GEN
      - VEG°
      - ULC° RUP
      - CMS° A
      - SUB A/B
      - CLI
      - VALV M
      - MA
      - T
      - DIST EMB
      - SEP INF
      - RENAL
    - IFC
      - NBTE=MARANTIC
        - LIBMAN-SACKS
        - CARCINOID SD
        - PEMB°
        - STERILE
      - GEN
        - RF
        - MIT
        - AOR
          - PROLAPSE MOST FREQ
          - SYS MURMUR + INSUF = MID SYS CLICK ⇔ LATE @ IFC
          - STEN
          - INSUF PROL
          - STEN CALCIFIC
          - IE
          - PAPM ← MI
          - DEGEN
          - CONGEN BICUS
          - R
        - TRI
          - CARCINOID SD
          - INSUF
          - CONGEN
          - MALFORMº
        - PUL
          - SYPHIL
          - IDIOPATHIC
          - AOR ANEVR
- DEF
  - ETIO
    - IMMUNO
    - GROUP A β HEMOLYT STREPT
    - 5-15Y
    - SEQUELAE
  - ASCHOFF BODY
    - FOC INTERS MYOC ↓FM
    - PERIC
    - MYOC
    - ENDOC
    - R
    - MA
    - T
    - P
  - OTH CHANGES PANCARDITIS
  - CARDIAC MANIFº ARF
    - FeV MALAISE ↑ESR
    - JOINT
      - ART-MIGR
      - ↓NS
      - MIG↑
    - SKIN SUBNOD
    - CNS
      - CHOREA
      - SYDENHAM
- GEN
  - COMPLIC
    - ARRHYT
    - PUMP FAIL
    - RUPT
      - SEP PAPIL
      - MUR T
      - V ANEUR
    - TRANSMURAL
    - SUBENDOC
    - TAMPONADE
  - MI
    - NGINA
    - ECTORIS
    - STABLE UNST
      - PROLONG V REC REST
      - PRINZMETAL INTERM REST
    - PRECIPITATED BY EXERº
    - METAB SD
    - ATHEROS NARROWING
    - GRON A
    - GRPULMONALE
  - PAIN
- RV
  - LV
    - CONGD
      - MITVD
      - LONG HD
      - LVF
    - VALV
      - M
      - A
      - HT
  - RL
    - GEN
      - DIST° NEUR VV
      - DEVLMNT/CONGST
      - NEN HYPOXIA
      - FUNDUS° CAMPIM ANIF MYOC ischs
      - ↑ PERFM
      - CBR ANOXIA
      - ↓ RENPERF
      - PLEUR REF EFFUS
      - +DYSPN
      - ORTHOP
      - MYOC D
      - LUES
      - PULM HTN
      - LHF
      - AM VALV
      - HT
      - ischHD
- CHF
  - CONGEST FAIL
  - HYPERTROPHY
- MET
  - TUM
    - PROLIFº FIBRIS
    - TRICUSPID INCOMPT SCAR
    - 12 S1 S T
    - R HF
    - ARF
    - MI
    - UREMIA
    - FIBRIN-PRICARD EXUD
    - RF
    - SLE
    - SER
    - (SUP) PUR
    - FIB/SER FIB
    - TBC PYOG STAP
    - RHABDOMYOMA
    - MYXOMA LA
    - ANGIOSARCOMA
  - I
- C=CONSTRICTIVE-ITIS
- A
- IAM
- PERIC
- MYOC
- -ITIS
  - TUM
  - TBC
  - DTM
  - HEMOR BdyIAM EXUDATE
- CARDIOMYOP
  - Bd
    - HEMOP
    - SERMANS
    - HYDROP
  - FIBROSIS MANS
  - LV OUTFLOW OBSTº
  - ↓CHAMB SEP
  - AD
    - ARRHYTHMOGENIC RV
    - AMYLOID
    - HYPERTROPHIC
    - RESTRIC
    - CONGESTIVE=DILATED
    - MOST COM
  - ALC
  - RHEUM
  - OEDEM
- FUNC ↓N
  - CYANOTIC
  - CYANOTIC
- CONGEN CAUSES
  - ASD
  - VSD
  - TF
  - PDA
  - CA
  - TGV
  - GENETIC
  - RUBELLA
  - PDA
  - ↑/M I
  - OTH
  - GNG SD

NICOLAS LEVY-NET

SCANEDOC 2013


TYPICAL ANGINA
PLAT
CIHD
THROMBUS
-A TRANSMUR MI
. SD
-UNSTABLE ANGINA
-A SUBEND MI
- SD
COMPLICO
GEN
SD = SUDDEN DEATH
MI
YOC INFARCO
iHD
SC
GEN
ARTERIAL
MYOCARDIUM
CORONARY
PARTIAL COMPLETE INTERUPO
MOST ATHEROS
CASES NARROWING
SOMETIMES BY
A AGGRAVATED THROMBOSIS
VASOSPASM
H CLI SILENT
CHRONIC iHD
GENETIC
FREQ
METAB SD
PREDISP
C OBESITY
RF
ATHEROG i PATTERN
HT
INS Ω
SOMET OVERT DIAB
PROIFM STATE
CP
ANGINA PECTORIS
AT REST
VASOSPASM
INTERMITTENT
PRINZMETAL
UNSTABLE
STABLE
MOST COMMON FORM
CHEST PAIN
EPISODIC
O2 INADEQUATE TO MYOC
PRECIPITATED BY
EXERTION
RELIEVED
REST
VDILATORS
NITROGLYCERIN
COR ATHEROS
SEVERE NARROWING
DEMANDS BY
ON EXERCO
OFTEN
RECURRENT
PROLONGED
IMMINENT
THROMBUS
DISRUPO
GEN
PLAQUE
VASOSPASM ALSO
EMBOLIZA
NL
SCH



10.1.3
RELATIVE CONCENTRA°
LDH
3 DAYS 4-7
TnI
CK-MB
MYOGLOBIN
HOURS
4
20
40
RELEASE
ENZ 1P
LEAK OUT INTO CIRC°
CARDIO SPEC
CHANGES
COR + OCCLUSION
COAG NEC
CHARACTERISTIC
LDH CK
SPECIFIC
MOST IMP
MORBIDITY FROM IHD
GEN
(N)
(MAC)
(FIB)
NO
M
i
R
A
L
PATTERNS
SIDED EMBOLISM
MUR THROMBOSIS
VENT ANEURYSM
RUPT PAPIL M
COMPLICA°
RUPTURE
PUMP FAILURE
ARRHYT
MOST GM(E) + 1ST SEVERAL HOURS
SUBENDOC
TRANSMURAL
EPIC
COMPRE°
BOI PERIC
TAMPONADE
4-7 DAYS
CONGEST CHF
SHOCK
SIZE LOCA°
LV
INTERIOR 1/3 WALL
NL
SCH
1
0
6
2
AFTER 12H
3
12 24
D
SLIGHT SWELLING
COLOR
4
BY 24H
PALEV
REDDISH BROWN
HYPEREMIA
5
BY 3RD D
YELLOW
6
FROM 7D
CONGESTED
7
FROM 10D
NEW VASC CONNEC
REMOVAL YELLOW NEC
8
2 → 4W
9
5W →
PALLOR
PROG FIBROSIS
10
WITHIN 3-6 M
SCAR
GRAY WHITE
GROSS
N
iFR
CESION
VIABLE
VASC CONGESTION PERINETEM
ARRHYT MOST GM
NEUT
INFILTRATE
ACIDO PHILICIL DYEI
WELL DEPEND COAG NEC
INFILTRA°
(N) REPLACEMENT
(MAC)
PHAG DEBRIS
YOUNG FIB
GROW VESSELS
CONTINUE
RISK FOR MYOC RUPTURE GREATEST WITHIN 4-7D
FIB VASC GROWTH
N → MAC
PHAG
COMPLETE
COLLAGEN 10TH MATRIX P
PROG FIBROSIS
MATURE FIBROUS TISSUE
VENT ANEURYSM MAY OCCUR
MICROSCOPIC

RF

DEF

ETIO

RHD

IFM DCORD MULTISYST MAJOR ♡ MANIF°

SEQUELAE

5-15Y

CHAR TRANSIENT MILD MIGRATORY POLYARTHRITIS

PHARYNGITIS GROUP A → 1-4 WK → RF

RHEUMAT USUALLY

STREP

OTH PARTS → RF RARELY

BODY

[ASO] ↑ ↑ RECENT IFC

APPARENTLY IMMUNO > DIRECT B INVOLVEMENT

UNCLEAR

INCIDENCE ↓↓ WESTERN

Ag — Ab ★

OTH TIS ♡

CARDIAC MANIF° ♡ ARF

CNS

SYDENHAM CHOREA

EMOT LABS

ERYTHEMA MARGINATUM DISTINCTIVE

TRANSC

SUBCUT NOD

ARTHRITIS

MIGRATORY SEQUENT

ARTHRALGIA

FEV MALAISE ESR ↑

IFM

LARGE JOINTS ASYMM

ANKLES

WR

E

MIGRANT

JOINT ± SKIN

5°6

DISAP 4 ↓ 2W

FISH MOUTH BUTTON HOLE DEFORMITY ONLY

STENOSIS INSUF

TRIVALVULAR INV

50% CASES

M

A

P RARELY

ATRIAL ★ ★ ADULT

PRESSURE TURBULENCE ↑ ↑ ↑

VALVE LEAFLETS

RED SWOLLEN

LIVE CLOSURES

TINY WARTY BEAD-LIKE RUBBERY

VERRUCAE

EARLY STAGE ⓑ

= VERRUCAE

OTH CHANGES

PANCARDITIS

SMALL FIRM / ARE FRIABLE PENBOIL

PERIC MAY ↓

SEROUS EFFUSION

OTH

PERIC PLEUR

ENDOC

MYOC

VALVULAR DAMAGE

ENDOCARDITIS ⓞ

MAY ↓↓

MALCALUM PLAQUE

PERIVASC WALL LV

VALVE CUSPS

CHRONIC THICKEN STRESS

MOST † ♡ FAIL

EARLY STAGES ARF

= RHEUM H D YEARS

= LATE SEQ

NL

RETIC FRAMEWORK COLLAPSE

FIBROID MATERIAL

FOCAL INTERST ★

MYOC IFM

LARGE ↓

ANITSCHKOW = MYO ↓

OCCASIONAL MULTINUC GIANT ↓ = AS CHOKE ↓

ASCHOFF BODY

CLASSIC LESION

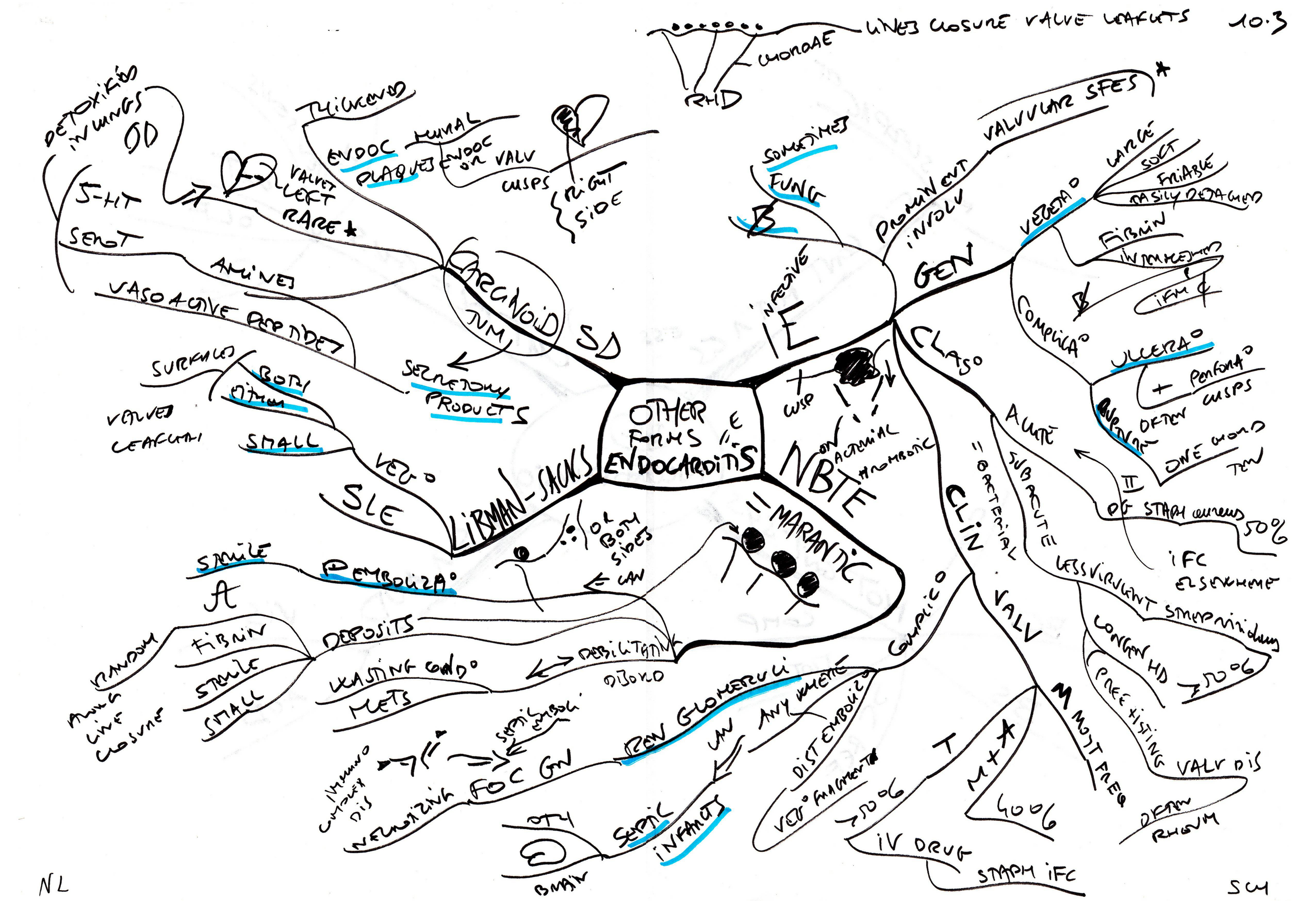
FIBROTIC HEALING ⓒ

Co OFTEN

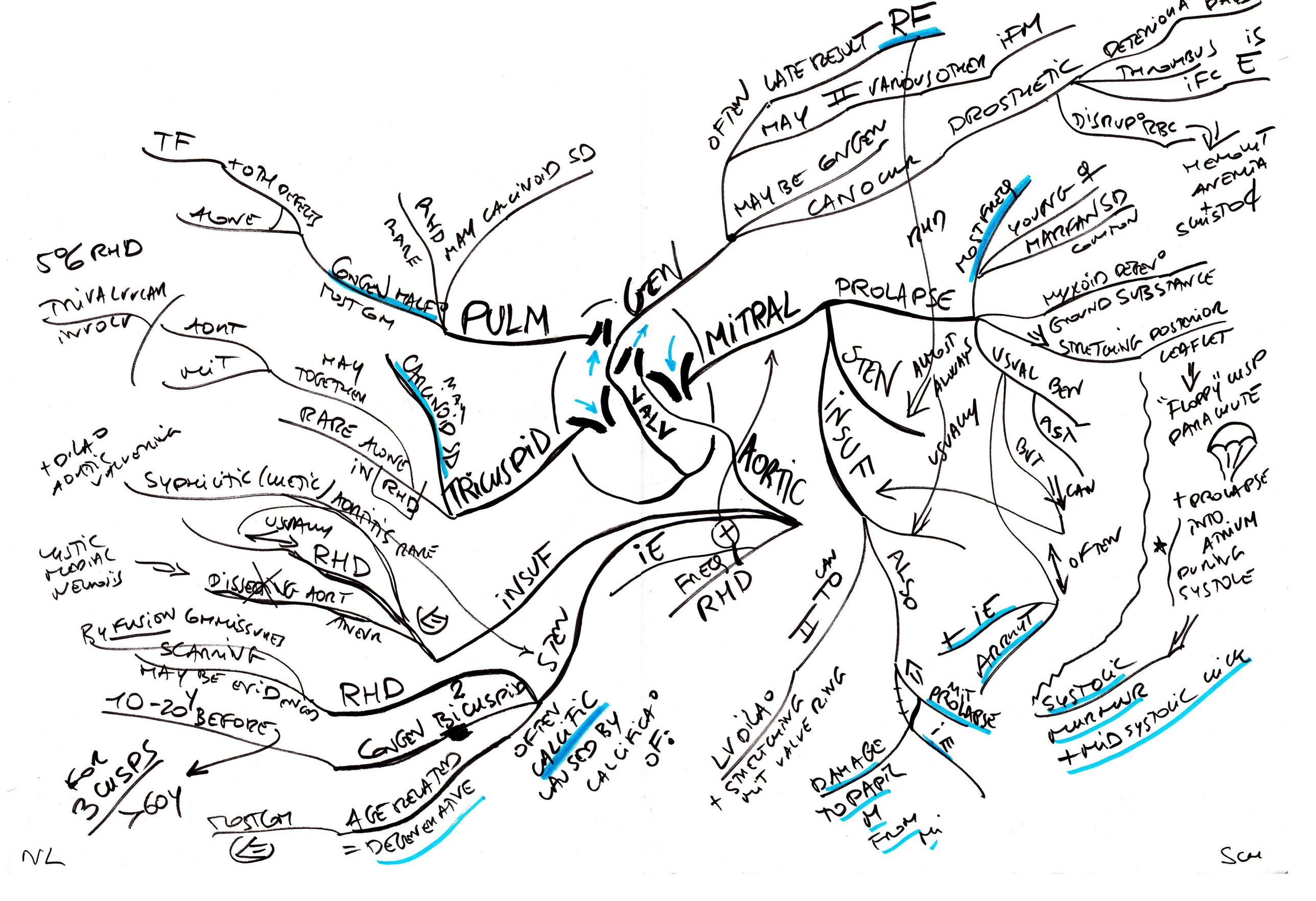
VALVES THICKENED FUSION CUSPS

FIBROTIC DEFORMED THICK CHORDAE

SCH



OTHER FORMS ENDOCARDITIS
SD
CARCINOID
TUM
SECRETORY PRODUCTS
DETOXIFIED IN LUNGS
OD
5-HT
SEROT
AMINES
VASOACTIVE PEPTIDES
VALVES LEFT
RARE *
THICKENED
ENDOC MURAL
PLAQUES
ENDOC OR VALV
CUSPS
RIGHT SIDE
LIBMAN-SACKS
SLE
VEG°
SURFACES
BOTH
EITHER
VALVES LEAFLETS
SMALL
OR BOTH SIDES
LAN
STERILE
A
EMBOLIZA°
FIBRIN
STERILE
SMALL
RANDOM
ALONG LINE CLOSURE
DEPOSITS
WASTING COND°
METS
DEBILITATING
DISORD
IMMUNO COMPLEX DIS
NECROTIZING
FOC GN
SEPTIC EMBOLI
REN GLOMERULI
LAN
ANYWHERE
DIST EMBOLIZ°
VEG° FRAGMENTS
SEPTIC INFARCTS
OTH
BRAIN
NBTE
ON ACTERIAL
THROMBOTIC
= MARANTIC
IE
INFECTIVE
CUSP
SOMETIMES
FUNG
B
PROMINENT INVOLV
VALVULAR SFES *
GEN
VEGETA°
LARGE
SOFT
FRIABLE
EASILY DETACHED
FIBRIN
INTERMESHED
IFM ¢
COMPLICA°
ULCERA°
+ PERFORA°
CUSPS
OFTEN
RUPTURE
ONE CHORD
TEN
CLAS°
ACUTE
II
PG STAPH aureus
50%
IFC ELSEWHERE
SUBACUTE
LESS VIRULENT STREP viridans
CONGEN HD
> 50%
PREEXISTING
VALV DIS
OFTEN RHEUM
CLIN
= BACTERIAL
VALV
COMPLIC°
M MOST FREQ
T
M + A
40%
> 50%
IV DRUG
STAPH IFC



TF
+ OTH DEFECTS
ALONE
CONGEN MALF°
MOST COM
RARE
RHD
MAY CALCINOID SD
5% RHD
TRIVALVULAR INVOLV
AORT
MIT
MAY TOGETHER
RARE ALONE IN RHD
CARCINOID SD
MAY
TRICUSPID
+ DILAO AORTIC VALVERING
SYPHILITIC (LUETIC) AORTITIS RARE
USUALLY
RHD
CYSTIC MEDIAL NECROSIS
DISSECTING AORT
ANEUR
BY FUSION COMMISSURES
SCARRING
MAY BE EVIDENCED
RHD
10-20Y BEFORE
FOR 3 CUSPS
>60Y
MOST COM
AGE RELATED
= DEGENERATIVE
CONGEN BICUSPID
2
STEN
INSUF
OFTEN CALCIFIC
CAUSED BY CALCIFICA° OF:
PULM
GEN
VALV
MITRAL
AORTIC
iE
FREQ
RHD
OFTEN LATE RESULT
RF
MAY II VARIOUS OTHER
iFM
MAY BE CONGEN
CANOCUR
PROSTHETIC
DETERIORA
THROMBUS
iFC
iS
E
DISRUP° RBC
HEMOLYT ANEMIA
+ SCHISTOC
RHD
MOST FREQ
YOUNG ♀
MARFAN SD
COMMON
PROLAPSE
MYXOID DEGEN°
GROUND SUBSTANCE
STRETCHING POSTERIOR LEAFLET
"FLOPPY" CUSP
PARACHUTE
+ PROLAPSE INTO ATRIUM DURING SYSTOLE
SYSTOLIC MURMUR
+ MID SYSTOLIC CLICK
STEN
ALMOST ALWAYS
INSUF
USUALLY
USUAL BEN
AST
BUT
CAN
OFTEN
ALSO
+ iE
ARRHYT
MIT PROLAPSE
iE
DAMAGE TO PAPIL M FROM MI
CAN
II TO
LV DILAO
+ STRETCHING MIT VALVE RING
NL
SCM

CONGEN CHD

CYANOTIC

- SD
  - A ↓
  - PDA
  - CA
  - AS
  - SHUNT
    - PRESSURE
    - O SATN ↑
    - L → R
    - MAY REVERSE
- TGA
  - SURVIVAL ↓ IF NO SHUNT
  - R → L
  - L → R
  - BECAUSE OF ↑ PULM ARTERY PRESSURE
- TF
  - LATE CYANOSIS
  - TRANSIENT
- EBSTEIN'S ANOMALY
  - SEPTAL PART TF
  - PULM INFUND VALV STEN
  - VSD
  - A STEN
  - PDA
  - MITRAL
    - PART OF CCAM
    - CV
    - RENAL CATH
    - GI
  - CONGEN RUB SD
  - 1ST MAT TRIM PREGNANCY
  - RUBELLA (CONGENITAL)
- TF CAN ↑ WITH AGE ?
  - UNIFACTORIAL
  - GEN PREDISP
  - CAUSES OF ASSOCIATE
  - BEFORE BIRTH
  - PDA
  - ETIO USUALLY UNDETERMINED
  - KNOWN
    - DOWN TRI 21
    - SOME OTH TRISOMIES
    - TURNER'S SD ↔ CA
  - FREQ
  - ENDOC CAUSATION
  - DEFECTS
  - OFTEN COMPLICATED BY CHD
- AASD
  - ±
  - V
- FETAL O2 DEPRIVA°
  - ↑ HIGH ALTITUDE
  - ↑ INCIDENCE PDA
  - APPARENT

FUNCTIONAL

- ↓ SURVIVAL
- ↓ PRESSURE
- SHUNT IS OTHER L → R

ACYANOTIC

- + PFO
- × ASD
- × PTA
- × TR
- V
- R
- ↑
- R

ASD

- PFO USUALLY Ø
- SPECTRUM LARGE ⇒ ↓ RECOVERY AV VALVE
- SECUNDUM
  - FOSSA OVALIS
- SINUS VENOSUS
  - UPPER ↳ SVC
  - CONGENITAL SD
  - ASD + MITRAL STEN

VSD

- ↕ SIZE

TF

- PULM INF VAL STEN
- VSD
- ↓ REMODELING AOR
- RV HYPERTROPHY

PDA

- FAILURE CLOSURE
- ↓ PULMONARY ART

CA OBSTRUCTIVE

- A → GUT ↓ LAT ↓ INFM GI
- SUBCLAVIAN

TGA

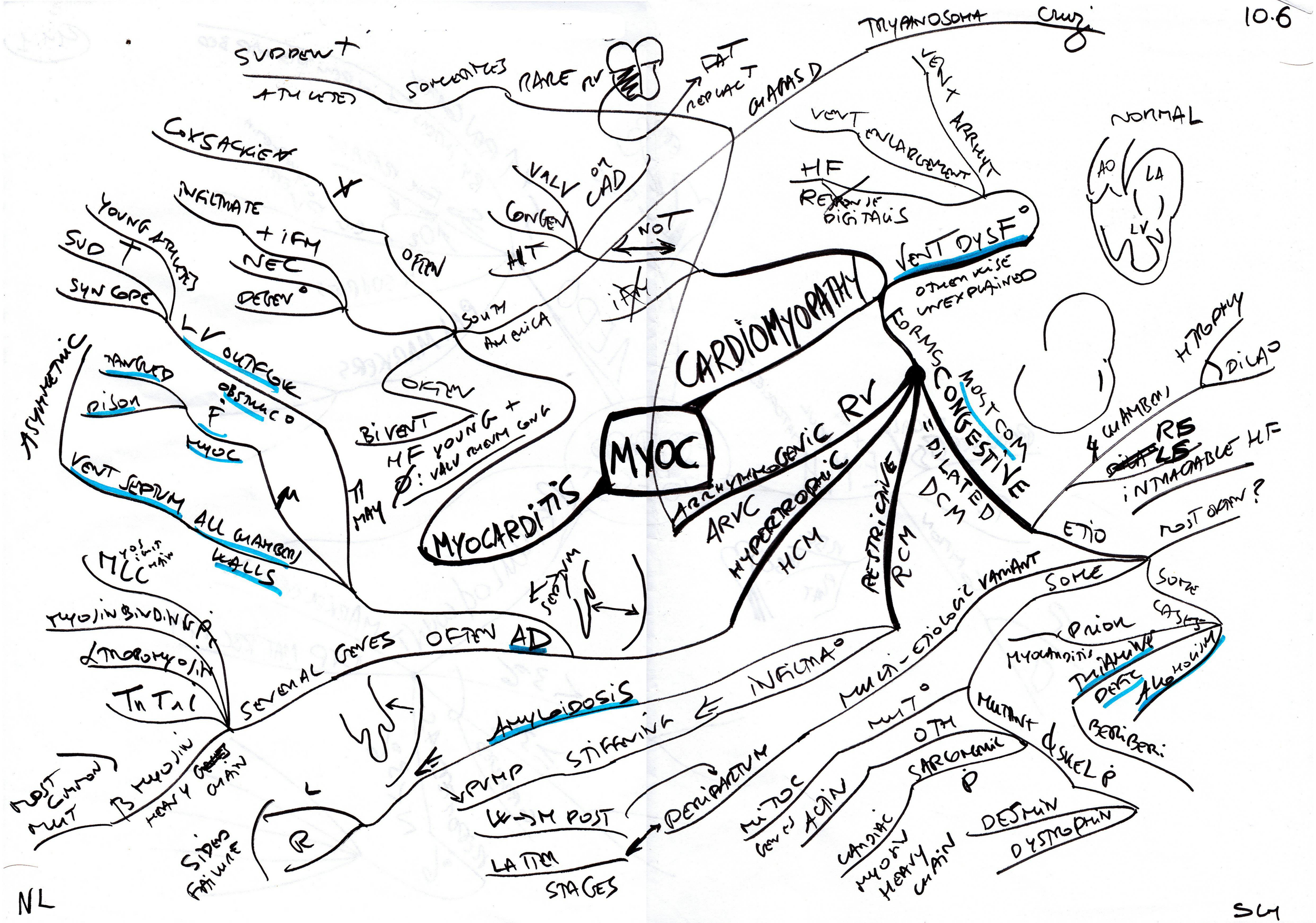
- AORTA
- PA

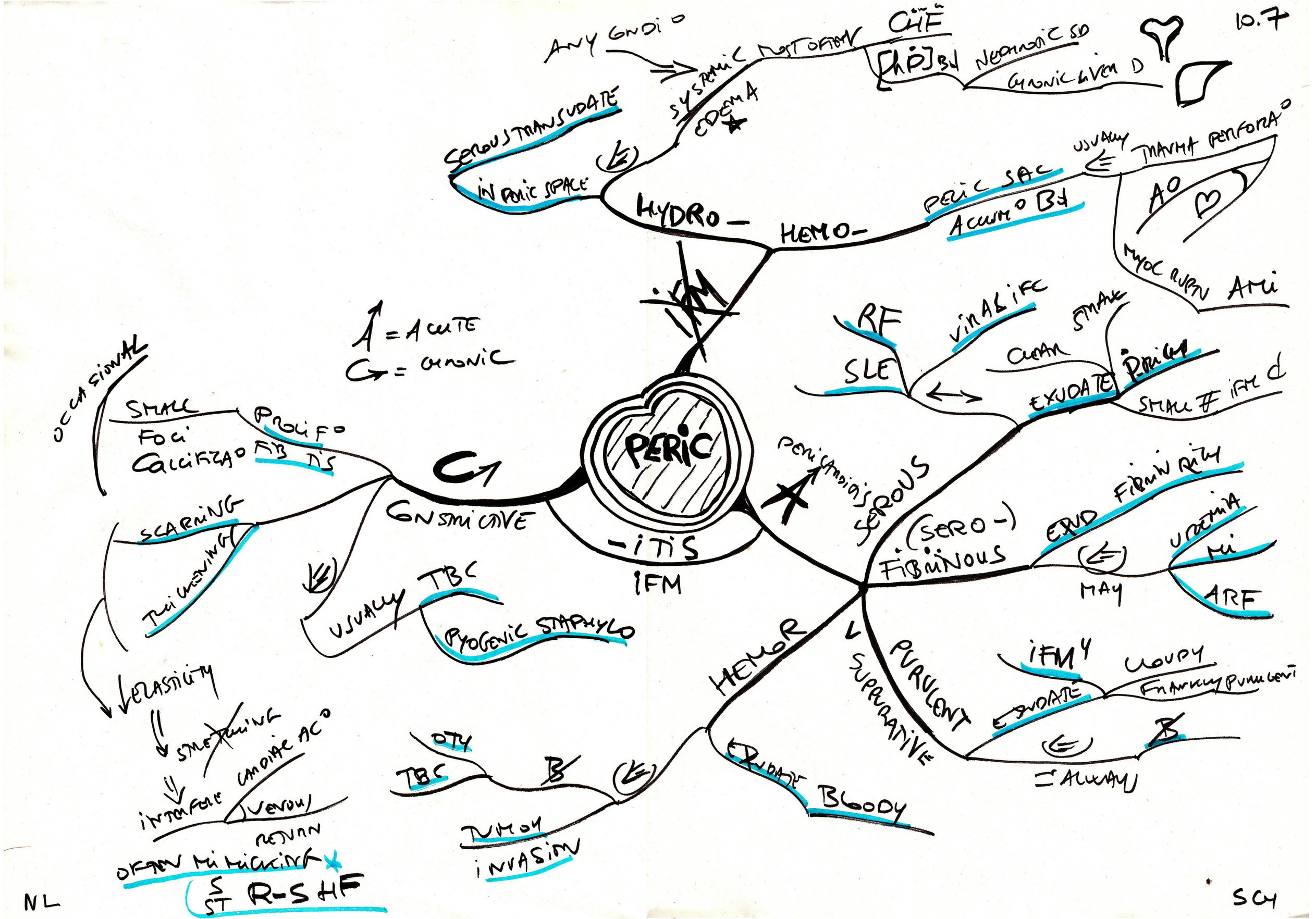
CLINICAL

- CLI OFTEN DELAYED → ADULT
- PULM HT
  - ↑ PULMONARY FLOW
  - MURMUR
  - (⇒) PARADOXICAL EMBS
- LATE CYANOSIS
- SMALL ASD ⇒ CLOSE SPONT
- LARGE ⇒ PULM HT
  - ( ) ↑ RHF
- CYAN FROM BIRTH
- SQUATTING ↓ ↘ R → L
- OPEN FETAL O2 CLOSURE ↑ PG
- CLOSURE
  - PHARM
  - SURG
  - INCREMENTAL GW
- CLOSURE ⇒ PULM HT
  - ↑ PULMONARY VASCULAR RESIST
  - LATE CYAN
  - HT OF UPPER EXTREM
  - ↑ CBC, VISCOS
  - WORSENING RISK
  - SERIAL XRAY
- COMPLICATIONS AS PDA
- NEC FOR SURVIVAL

NL

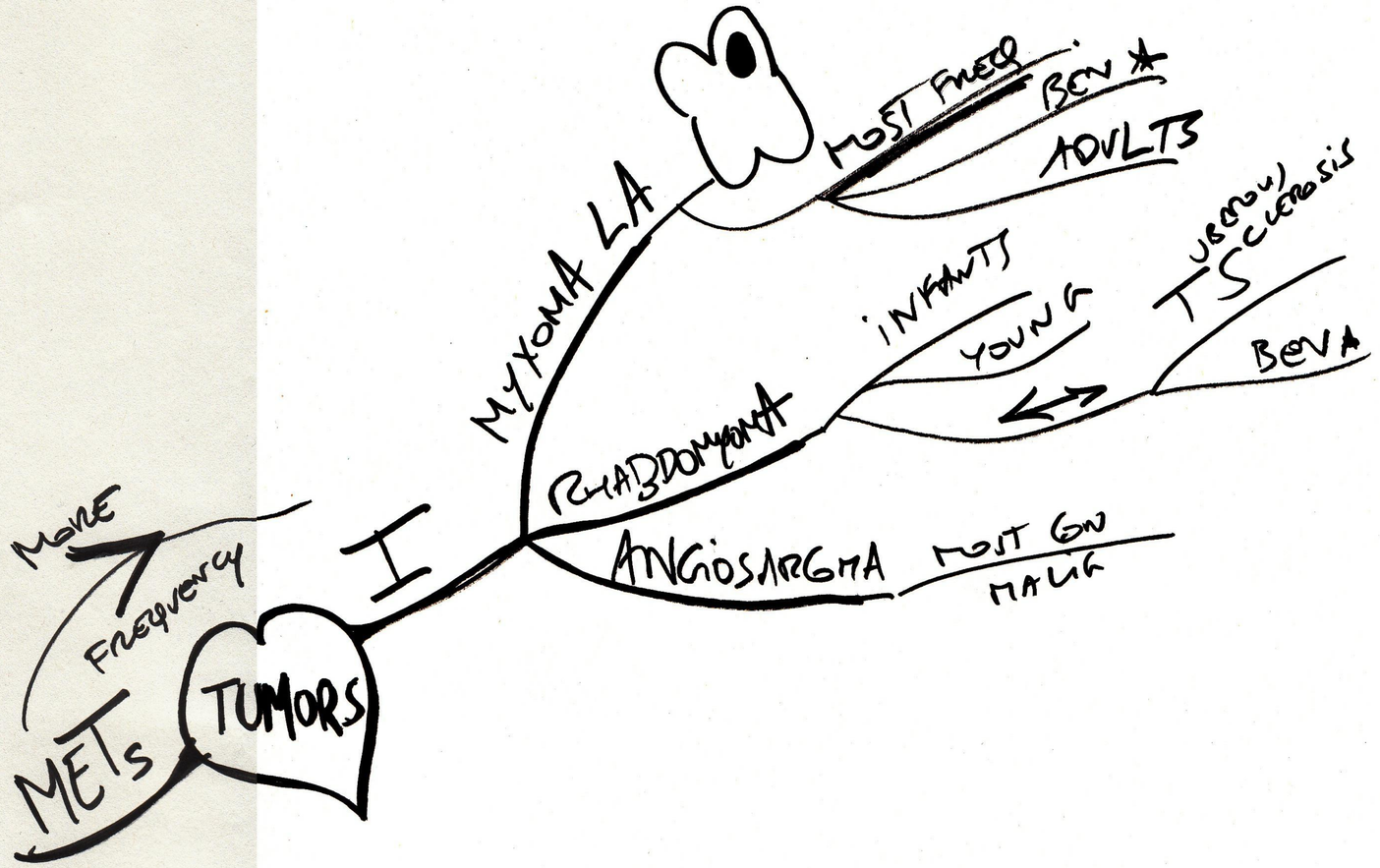
SCM


MYOC
CARDIOMYOPATHY
MYOCARDITIS
ARVC
HYPERTROPHIC
HCM
RESTRICTIVE
RCM
CONGESTIVE
FORMS
MOST COM
= DILATED DCM
VENT DYSF°
OTHERWISE UNEXPLAINED
VENT ENLARGEMENT
VENT ARRHYT
HF
RESPONSE DIGITALIS
NORMAL
AO
LA
LV
TRYPANOSOMA
CRUZI
CHAGAS D
FAT
REPLACT
RARE RV
SOMETIMES
SUDDEN
ATHLETES
COXSACKIE
OFTEN
VALV
CAD
CONGEN
HT
NOT
IFM
SOUTH AMERICA
INFILTRATE
+ IFM
NEC
DEGEN°
YOUNG ATHLETES
SUD
SYNCOPE
LV OUTFLOW
OBSTRUC°
TANGLED
DISON
F
MYOC
VENT SEPTUM
ALL CHAMBERS
WALLS
ASYMMETRIC
OKTEN
BIVENT
HF YOUNG +
Ø: VALV RHEUM CONG
MAY
SEPTUM
SEVERAL GENES
OFTEN AD
MLC
MYOSIN BINDING
TROPOMYOSIN
TnTnI
MOST COMMON MUT
β MYOSIN
HEAVY CHAIN
SIDED FAILURE
R
L
AMYLOIDOSIS
PUMP
STIFFENING
INFILTRA°
W→M POST
LATTER
STAGES
PERIPARTUM
MULTI-ETIOLOGIC VARIANT
MUT°
MITOC
GENES
ACTIN
OTH
SARCOMERIC
CARDIAC
MYOSIN
HEAVY CHAIN
DESMIN
DYSTROPHIN
MUTANT
CSKEL
SOME
PRIOR
MYOCARDITIS
THIAMINE
DEFIC
ALCOHOLISM
BERIBERI
SOME
CASES
ETIO
MOST OKTEN ?
4 CHAMBERS
HTROPHY
DILAO
RS
LS
INTRACTABLE HF
NL
SCH


PERIC
-ITIS
IFM
HYDRO-
HEMO-
SEROUS TRANSUDATE
IN PERIC SPACE
ANY CONDI°
SYSTEMIC MOST OFTEN
EDEMA
CHF
[hP] Bd
NEPHROTIC SD
CHRONIC LIVER D
PERIC SAC
ACCUM° Bd
USUALLY
TRAUMA PERFORA°
AO
MYOC RUPTU
AMI
RF
SLE
VIRAL IFC
CLEAR
STRAW
EXUDATE
P-RICH
SMALL # IFM d
SEROUS
PERICARDITIS
(SERO-)
FIBRINOUS
EXUD FIBRIN RICH
MAY
UREMIA
MI
ARF
PURULENT
SUPPURATIVE
IFM^Y
EXUDATE
CLOUDY
FRANKLY PURULENT
ALWAYS
B
HEMOR
EXUDATE
BLOODY
TUMOR
INVASION
B
TBC
OTY
CONSTRICTIVE
USUALLY
TBC
PYOGENIC STAPHYLO
SCARRING
THICKENING
OCCASIONAL
SMALL
FOCI
CALCIFICA°
PROLIF°
FIB TIS
ELASTICITY
STRETCHING
INTERFERE
CARDIAC AC°
VENOUS
RETURN
OFTEN MIMICKING
S
ST
R-S HF
A = ACUTE
C = CHRONIC

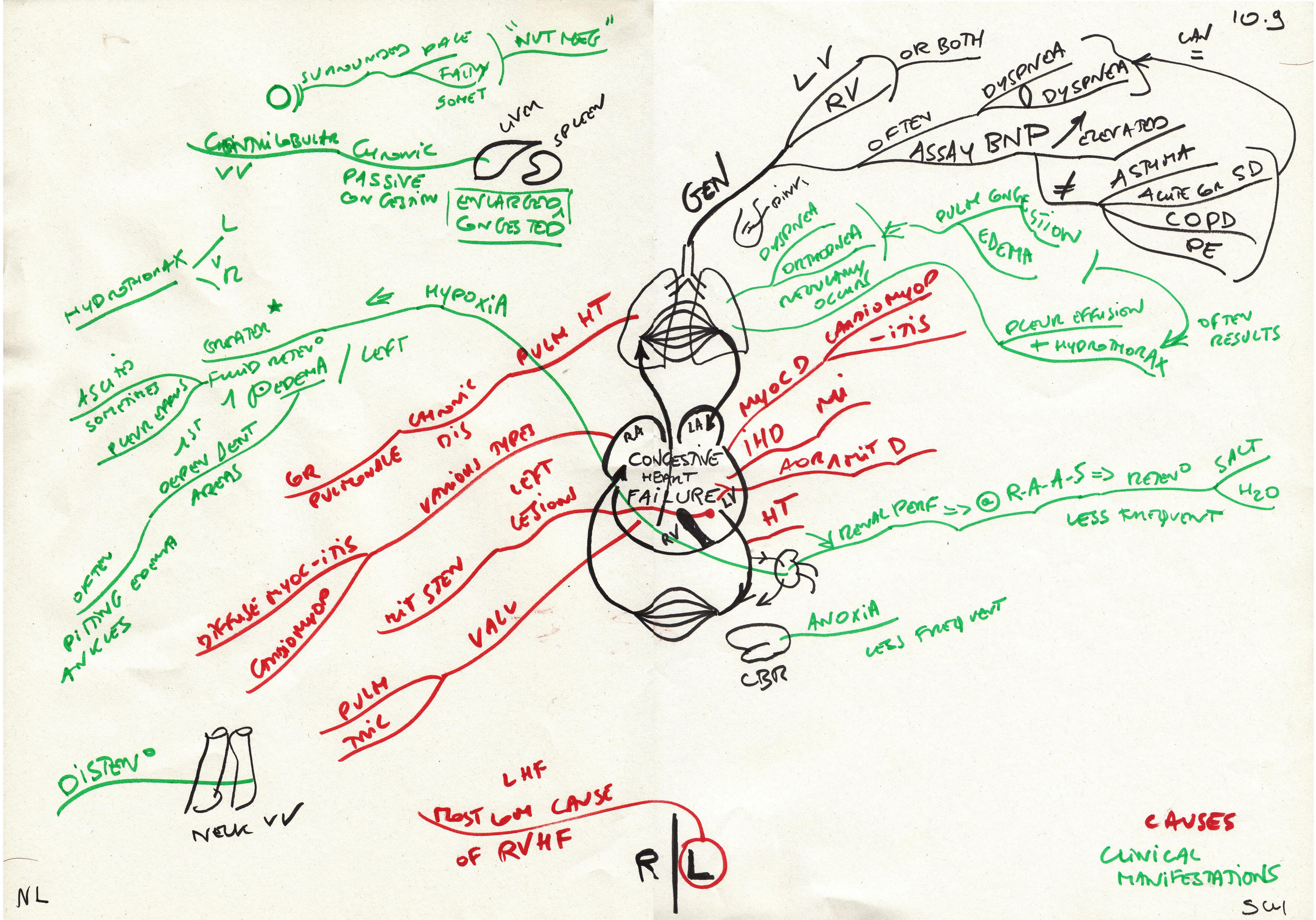
NL

SCY

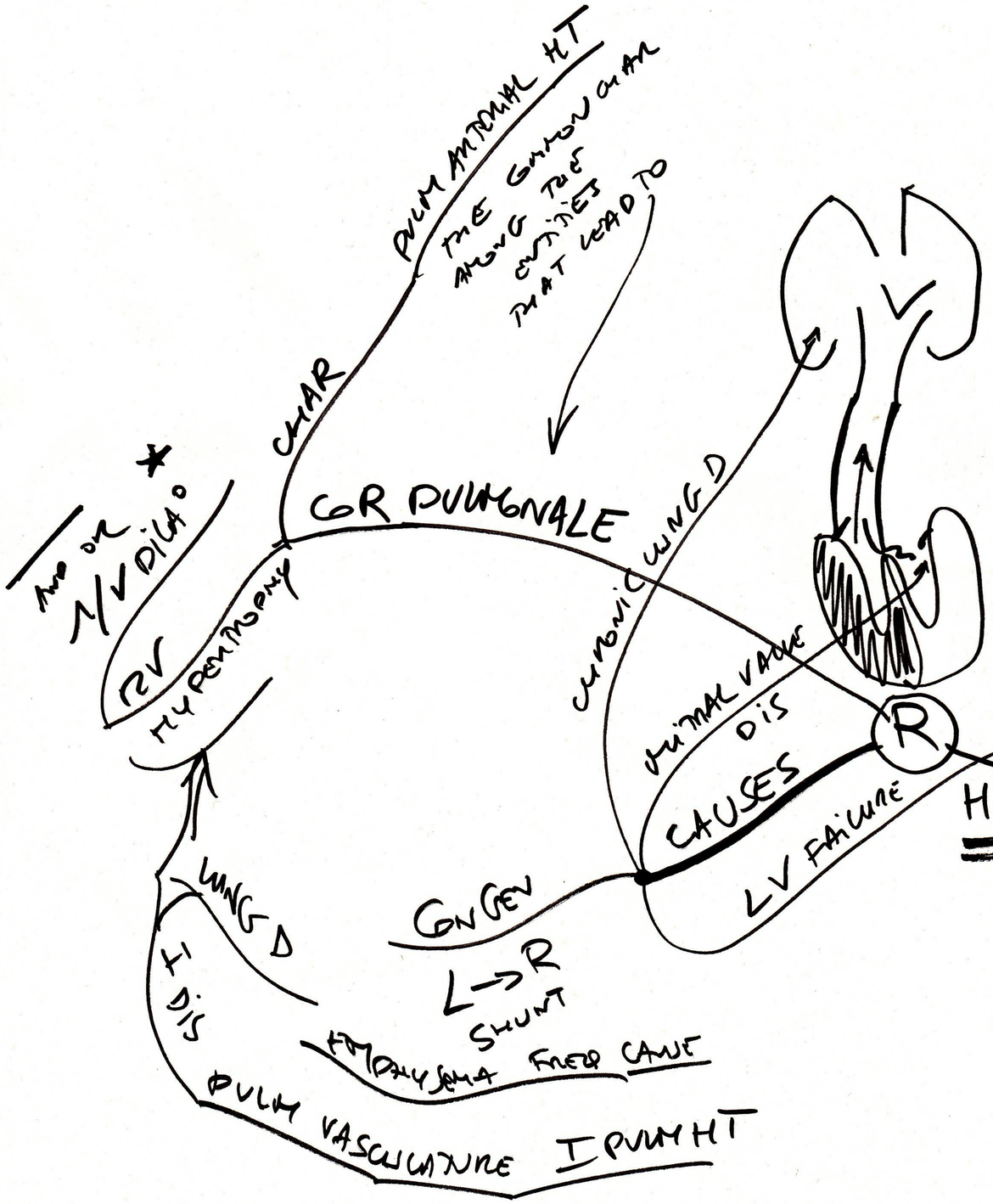

MORE
FREQUENCY
METs
TUMORS
I
MYXOMA LA
MOST FREQ
BEN ★
ADULTS
RHABDOMYOMA
INFANTS
YOUNG
TUBEROUS SCLEROSIS
BEVA
ANGIOSARCMA
MOST GN
MALIG

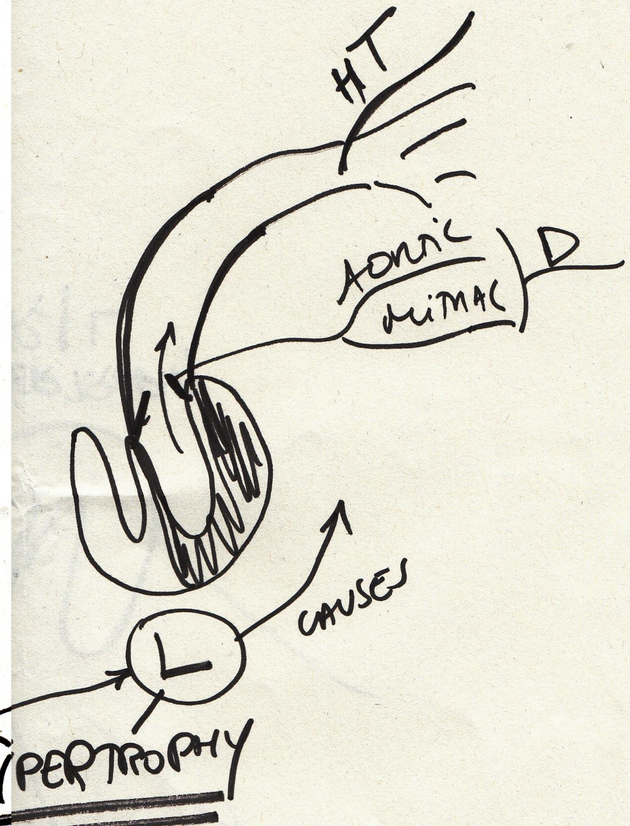
NL

SCI



SURROUNDED PALE
FATTY
SOMET
"NUT MEG"
CENTRILOBULAR
VV
CHRONIC
PASSIVE CONGESTION
LIVER
SPLEEN
ENLARGED
CONGESTED
HYDROTHORAX
L
V
R
GREATER *
HYPOXIA
ASCITES
SOMETIMES
PLEUR EFFUS
FLUID RETENO
1 ⊕ EDEMA / LEFT
1ST
DEPEN DENT
AREAS
OFTEN
PITTING EDEMA
ANKLES
PULM HT
CHRONIC
DIS
GR
PULMONALE
VARIOUS TYPES
LEFT
LESIONS
DIFFUSE MYOC-ITIS
CARDIOMYOP
MIT STEN
VALV
PULM
TRIC
DISTENO
NECK VV
LHF
MOST COM CAUSE
OF RVHF
R
L
GEN
LV
RV
OR BOTH
OFTEN
DYSPNEA
DYSPNEA
ASSAY BNP
ELEVATED
≠
ASTHMA
ACUTE COR SD
COPD
PE
LAN
=
DINK
DYSPNEA
ORTHOPNEA
REGULARLY
OCCURS
PULM CONGESTION
EDEMA
PLEUR EFFUSION
+ HYDROTHORAX
OFTEN
RESULTS
CARDIOMYOP
-ITIS
MYOC D
IHD
MI
AOR MIT D
HT
RA
LA
CONGESTIVE
HEART
FAILURE
LV
RV
RENAL PERF => @ R-A-A-S => RETENO
SALT
H2O
LESS FREQUENT
ANOXIA
LESS FREQUENT
CBR
CAUSES
CLINICAL
MANIFESTATIONS
NL
SCH





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