

Le Syndrôme interstitiel
« revisité »
PID hors RdM

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PID: >100 causes mais 10 ++

- sarcoïdose
- fibrose interstitielle diffuse
- affections néoplasiques : lymphangite néoplasique, localisations pulmonaires
- pneumoconioses
- pneumopathies d'hypersensibilité
- poumon "cardiaque" (hémodynamique)
- pneumopathies iatrogènes
- SIDA et infections pulmonaires opportunistes
- tuberculose
- HLP

PNEUMOPATHIES INTERSTITIELLES DIFFUSES

Cause connue

Contexte défini, cause inconnue

Cause inconnue

Antigène organique

Pneumopathie d'hypersensibilité ± chronique

Agent minéral

Pneumoconioses
Silicose, Asbestose, Berylliose

Médicament

Pneumopathie médicamenteuse
(www.pneumotox.com)

Insuffisance cardiaque

Œdème interstitiel cardiogénique

Néoplasie

Lymphangite carcinomateuse, Lymphome, Carcinome bronchioloalvéolaire

Infection chronique

Pneumocystose, Miliaire tuberculeuse

Connectivites

Polyarthrite rhumatoïde, Syndrome Gougerot Sjögren, Sclérodémie, Polymyosite et Dermatopolymyosite

Granulomatoses

Sarcoïdose

Vascularites

Syndrôme de Churg & Strauss, Maladie de Wégener

Autres

Histiocytose X, Protéïnose alvéolaire, Lymphangioléiomyomatose, Pneumopathie chronique à éosinophiles

Fibrose Pulmonaire Idiopathique (FPI)

Pneumopathie Interstitielle Non Spécifique (PINS)

Pneumopathie organisée cryptogénique, Bronchiolite respiratoire avec PI, PI desquamative

Autres et PI rares (Lymphocytaire, fibroélastose) ou **inclassables**

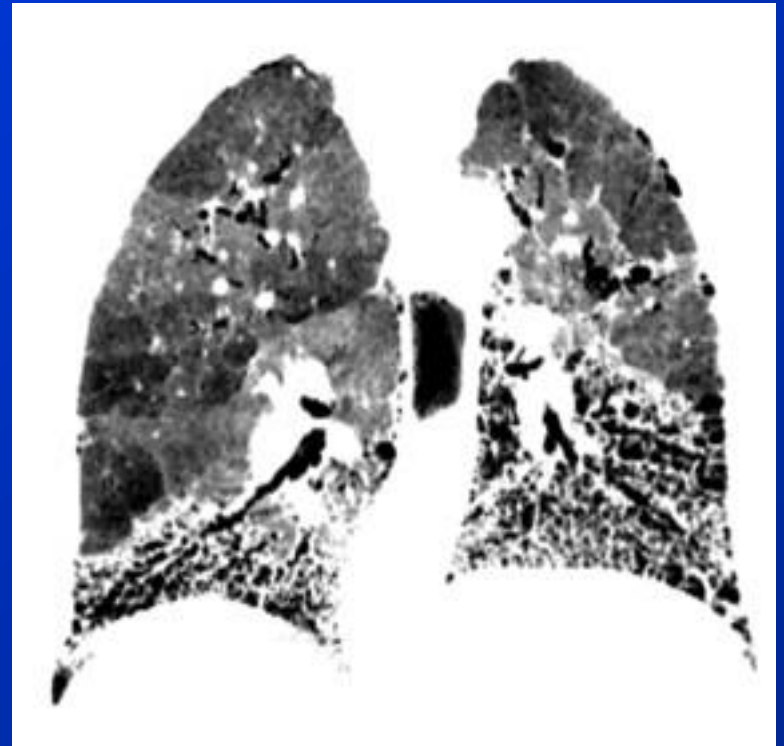
TDM : Tomodensitométrie
LBA : Lavage Broncho-Alvéolaire
FPI : Fibrose Pulmonaire Idiopathique
PINS : Pneumopathie Interstitielle Non Spécifique
PI : Pneumopathie Interstitielle
PID : Pneumopathie Interstitielle Diffuse
PIC : Pneumopathie Interstitielle Commune

PID et Oncologie

- lymphangite néoplasique, localisations pulmonaires
- poumon "cardiaque" (hémodynamique)
- pneumopathies iatrogènes
- infections pulmonaires opportunistes
- Autre PID

UIP prouvée par BPC et Diagnostic TDM Initial.

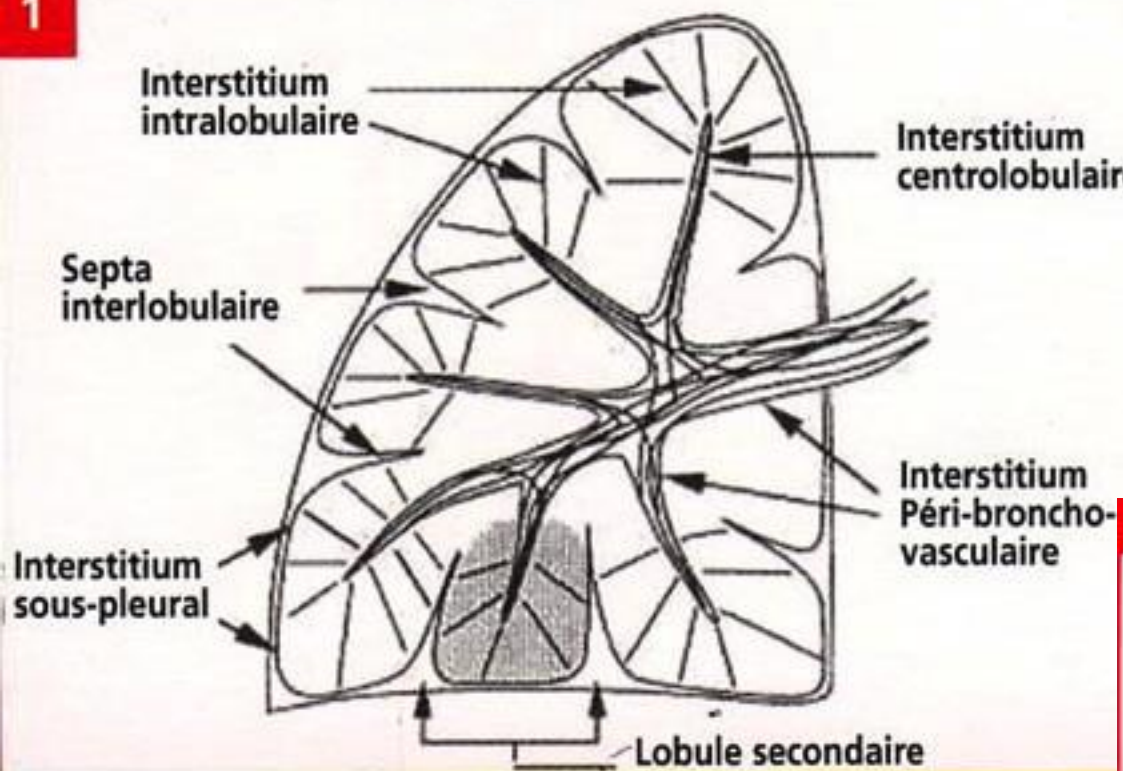
- 1 NSIP: 53 %
- 1 PHS chronique: 12 %
- 1 BBS: 9 %
- 1 Pas de dg préférentiel: 23 %



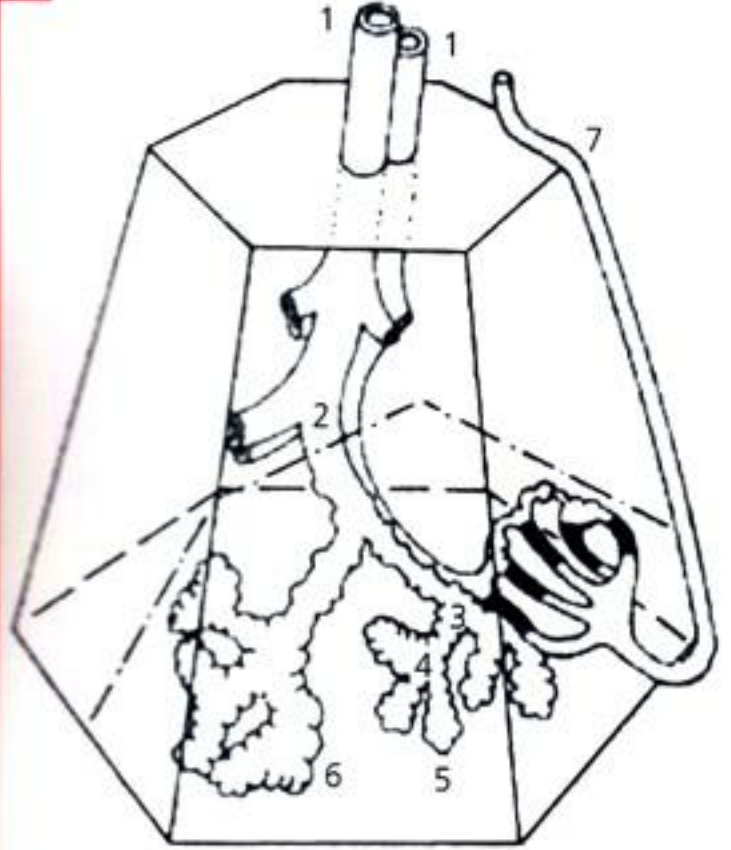
PID et TDM : 2 Impératifs

- 1 Anatomie: Interstitium et Lobule de Miller
- 1 Technique TDM .

1



2



Impératifs techniques

- | coupes mm: résolution spatiale ++
- | temps de balayage court
- | HR: Algorithme « os »
- | milliampérage élevé
- | patient en décubitus
- | apnée inspiratoire
- | +/-: Expi., Procubitus.

PID: TDM

- 1 Micro-nodules
- 1 Opacités linéaires
- 1 Condensations « alvéolaires »
- 1 Verre dépoli
- 1 Kystes
- 1 (Fibrose: RdM) Réticulations IL

PID: Micro-nodules

- 1 < 5 mm
- 1 Densité, contours
- 1 Distribution (lobule, axial, sagittal)
- 1 MIP: Détection, Profusion, Distribution IL

Micro-nodules: type – distribution intralobulaire

1 Interstitiels: « bien limités »

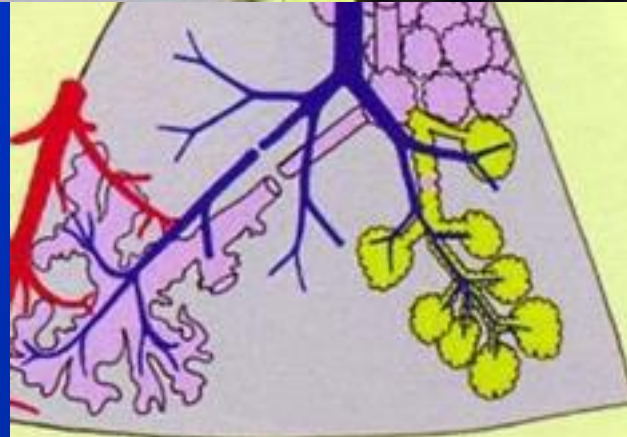
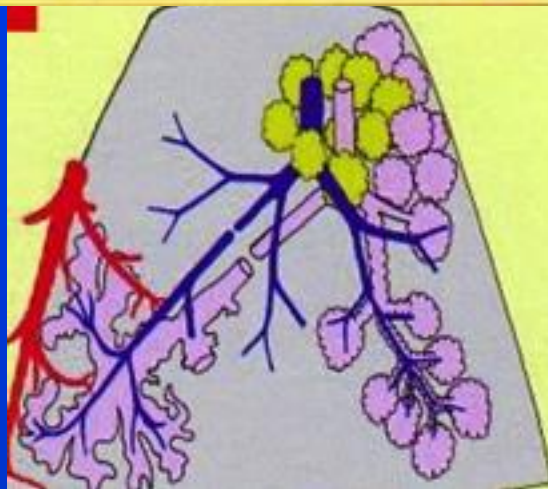
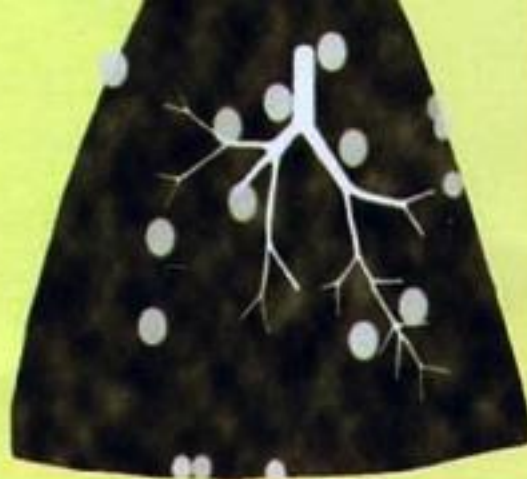
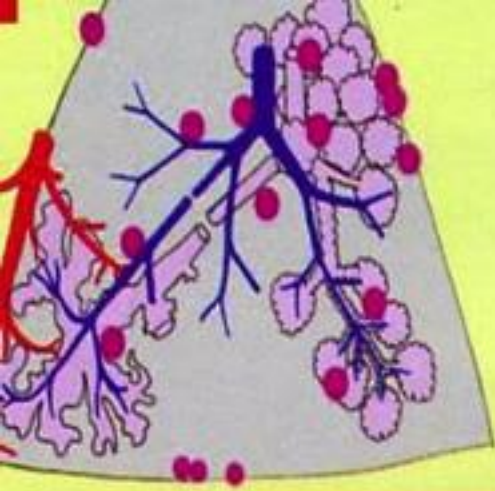
1 péri- lymphatique

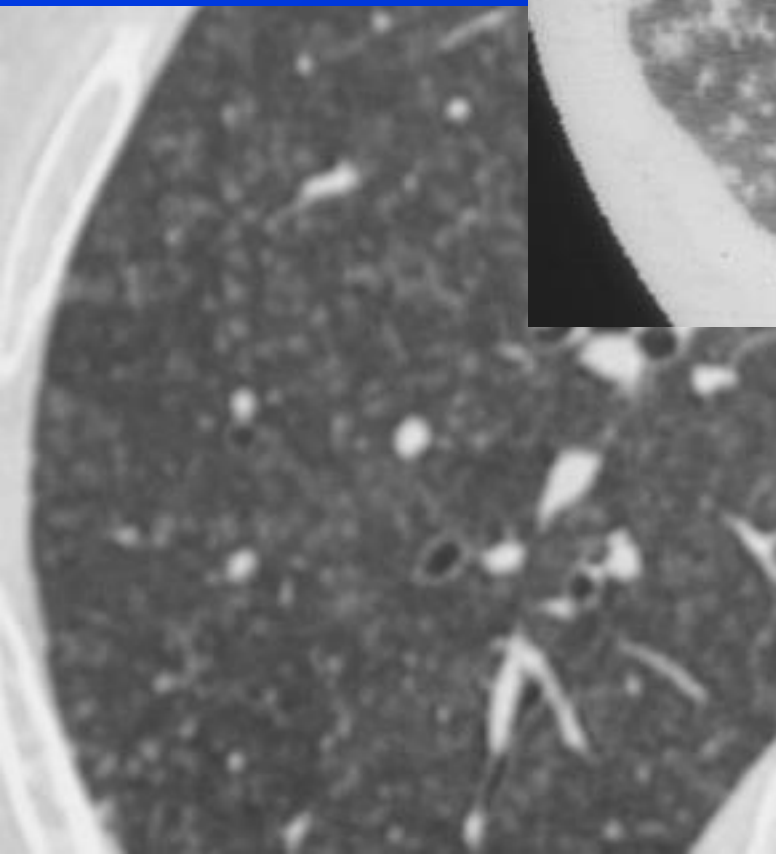
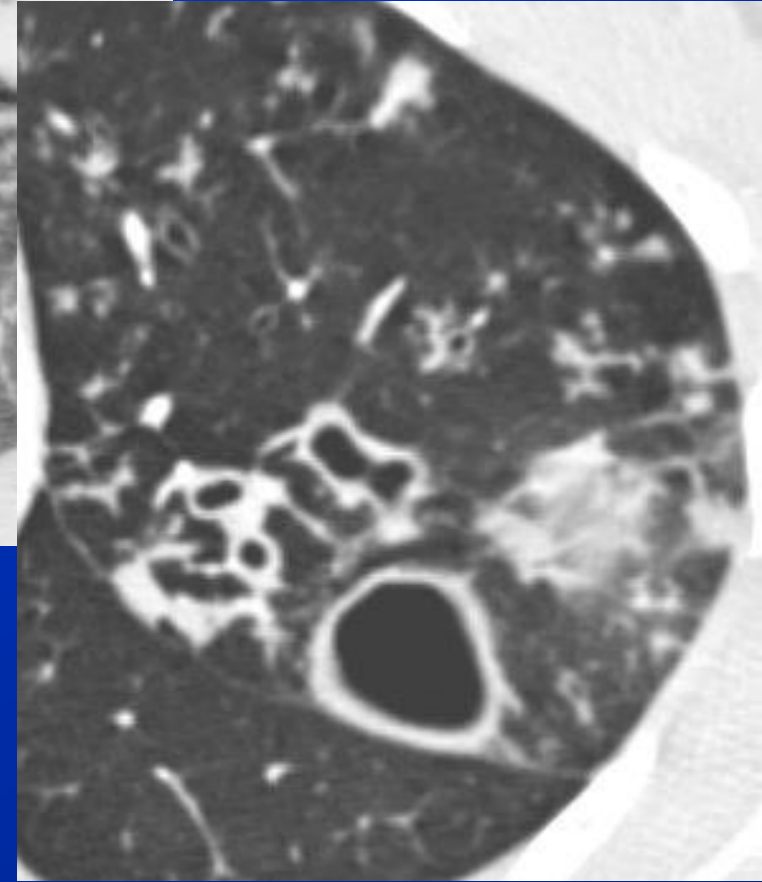
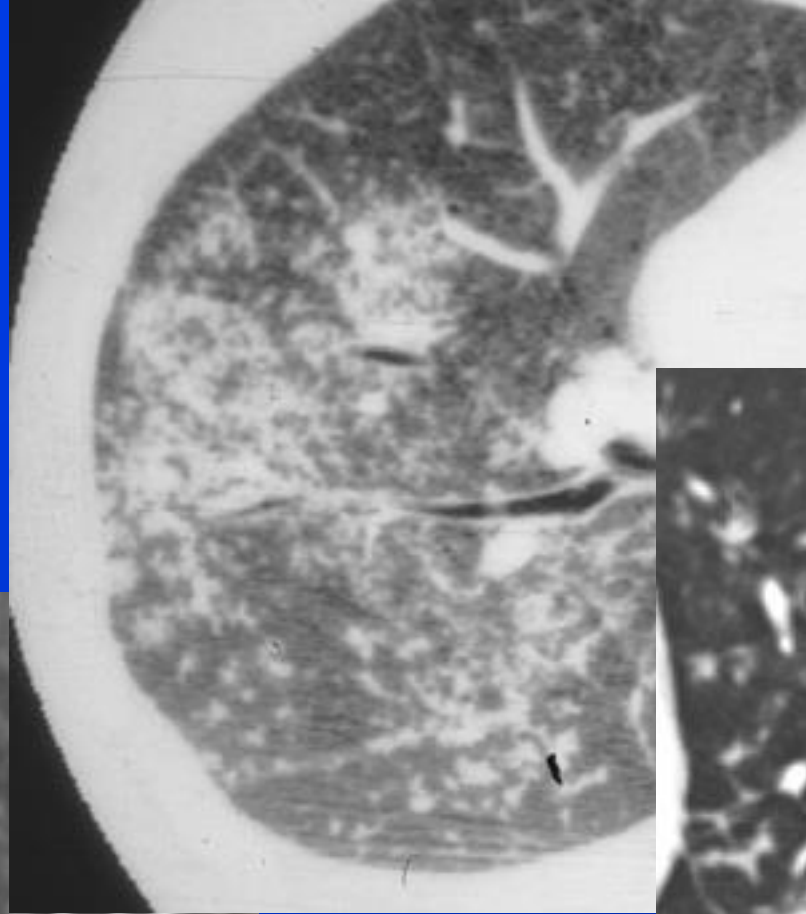
1 Alvéolaires: « mal limités »

1 au hasard: hémotogène

1 Bronchiolaires: « les branchés »

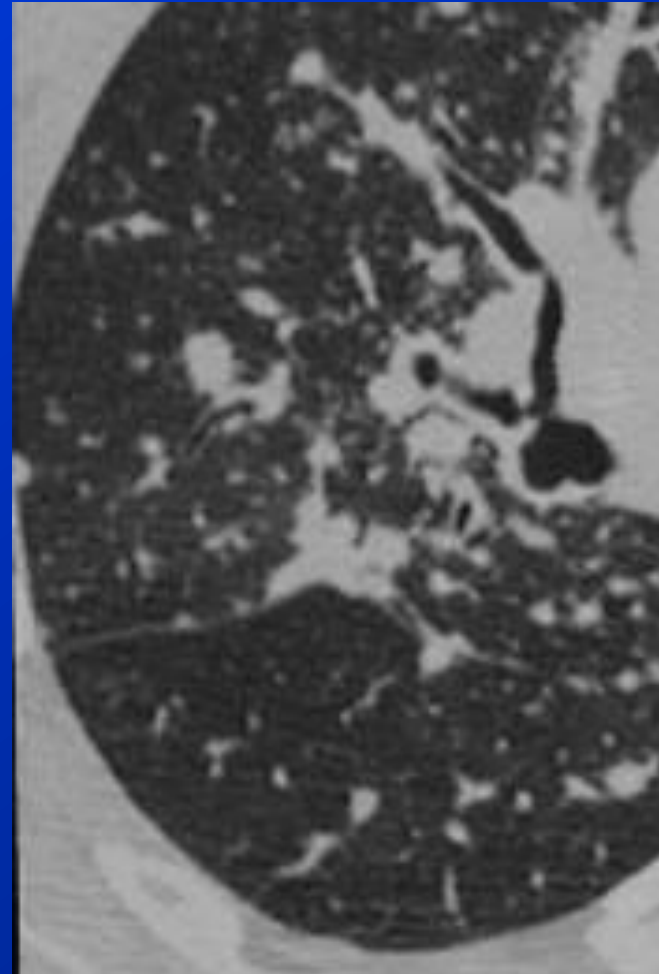
1 Centro-lobulaire



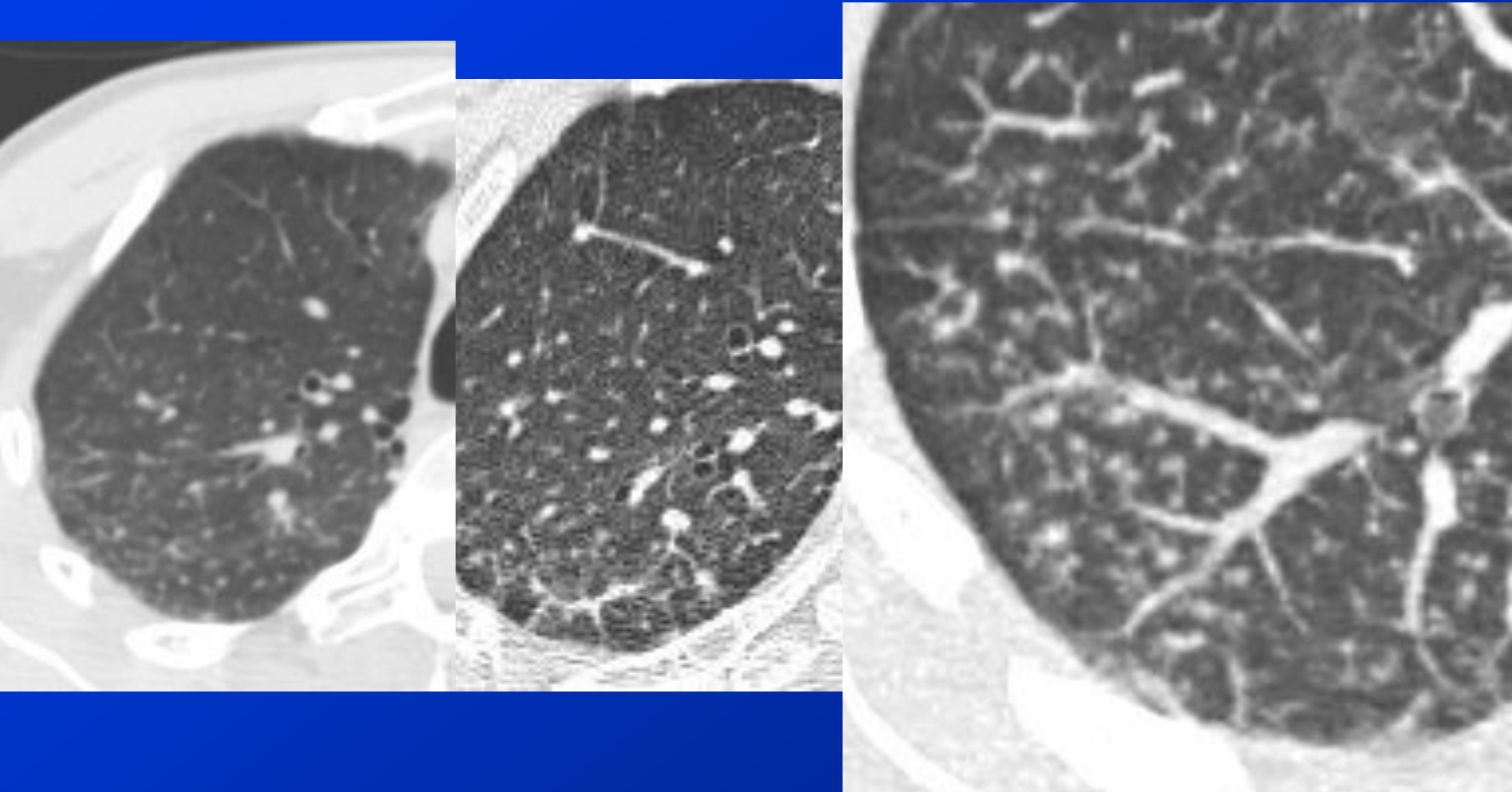


Micro-nodules: Distribution péri-lymphatique

- 1 BBS
- 1 Lymphangite K
- 1 Mais aussi:
 - Silicose
 - Pneumoconiose
 - lymphome



Silicose du prothésiste dentaire



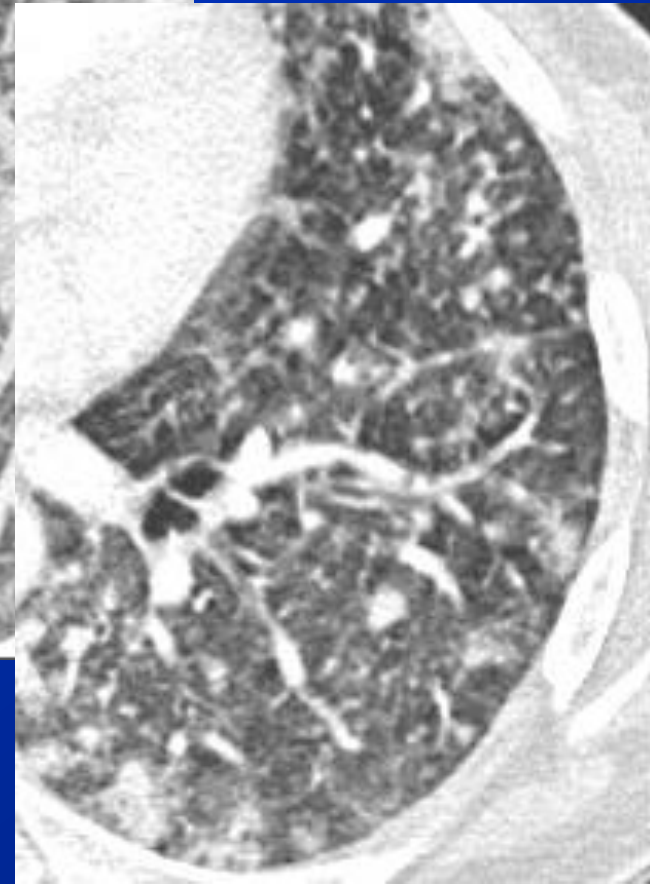
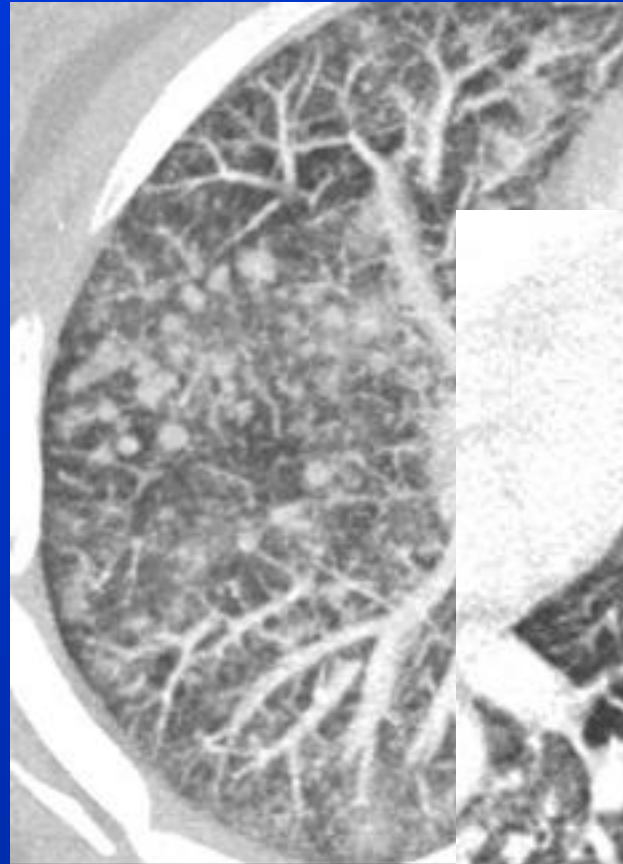
Micro-nodules: Distribution au hasard: hémato-gène

1 Diffuse, homogène,
pas de prédominance.

1 K

1 Infections

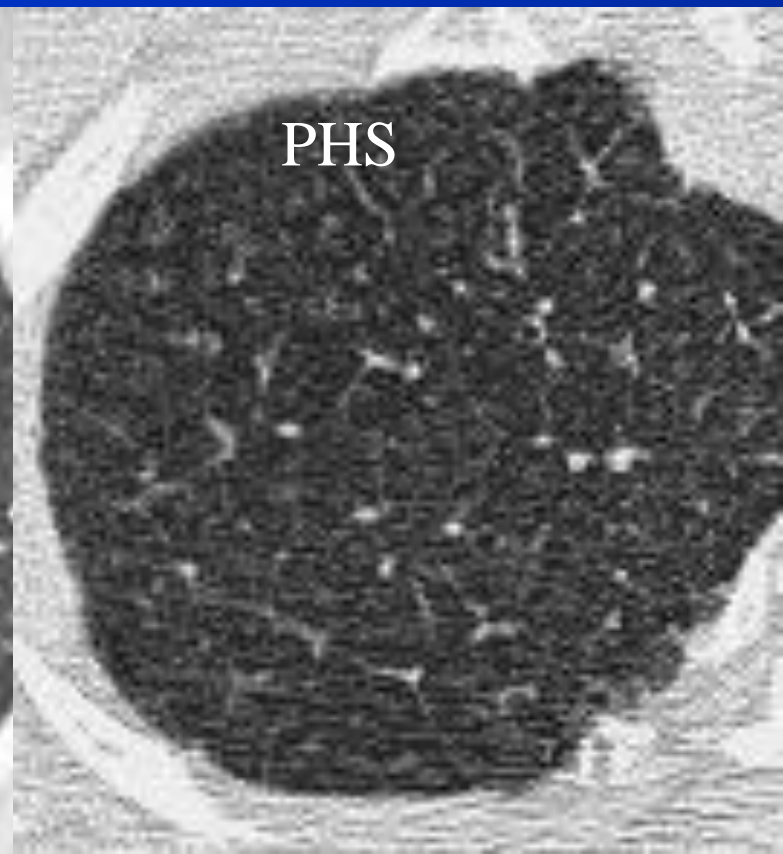
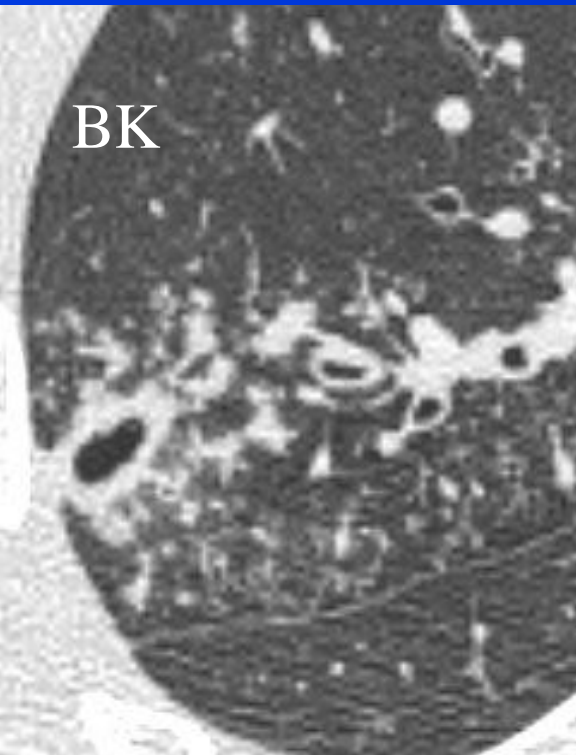
- BK ++
- Mycose
(candidose, histoplasmosse,
blastom.)
- Virale
(CMV, Varicelle, herpes)



Micro-nodules: Distribution

Centro-lobulaire

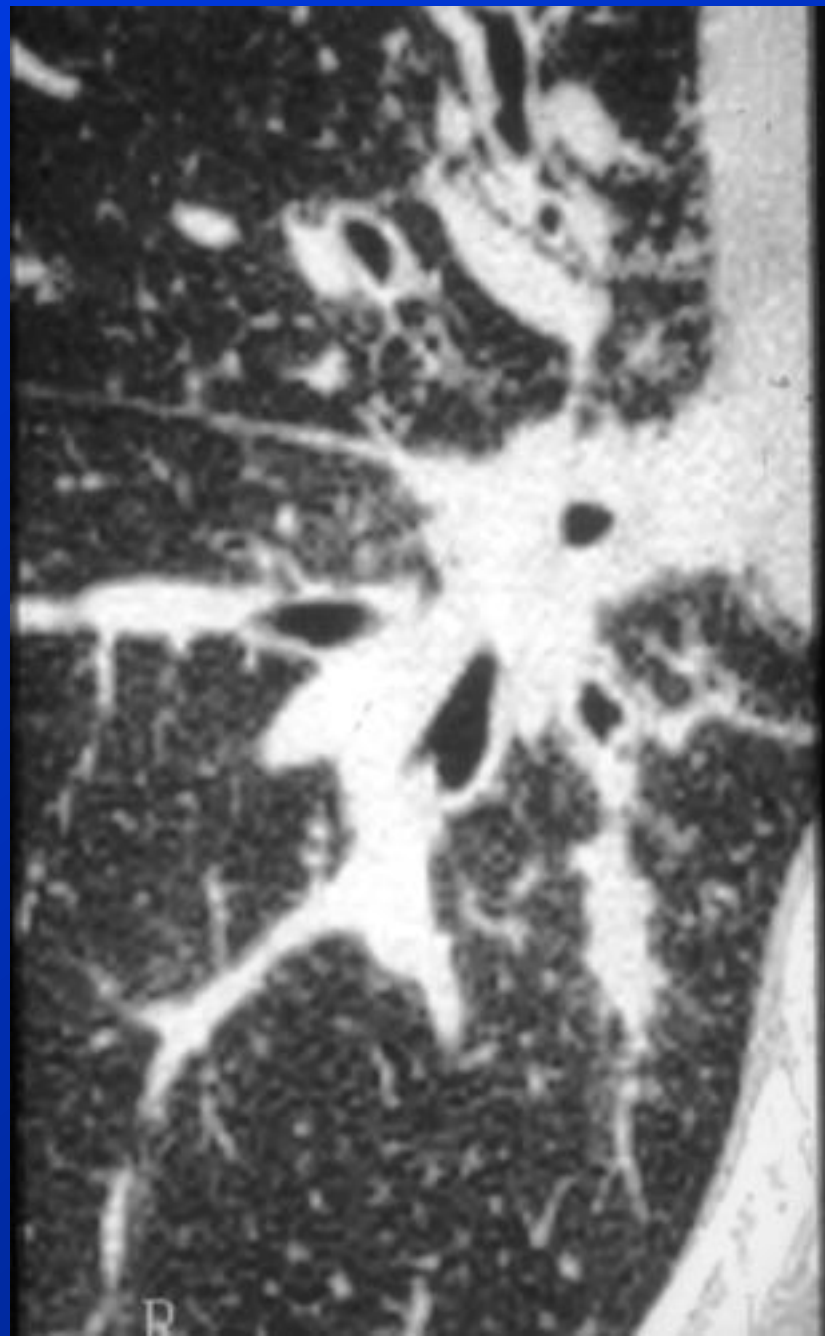
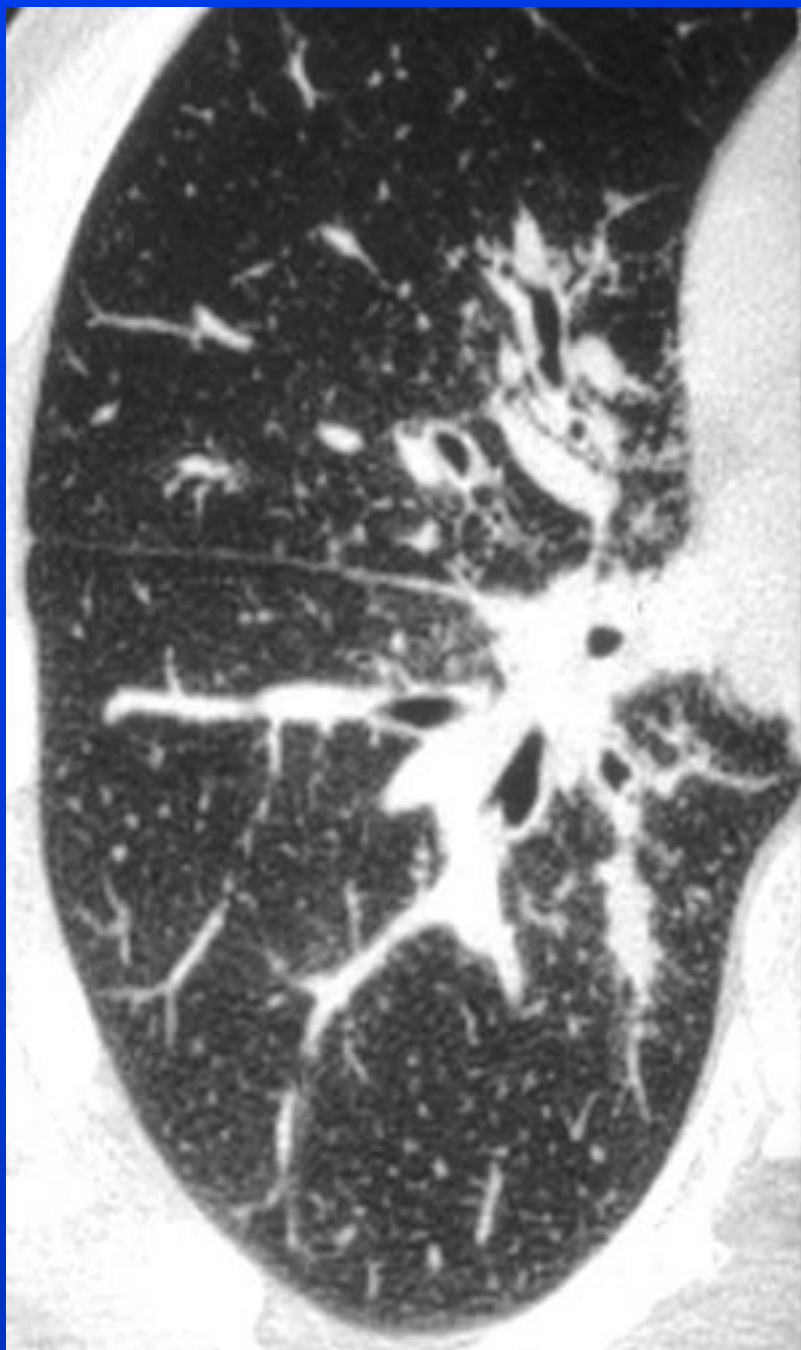
- 1 Bronchiolaire- péribronchiolaire
- 1 Périvasculaire: œdème.... PHS.



PID: Opacités linéaires

1 Interstitium péri-broncho-vasculaire: BTB ++

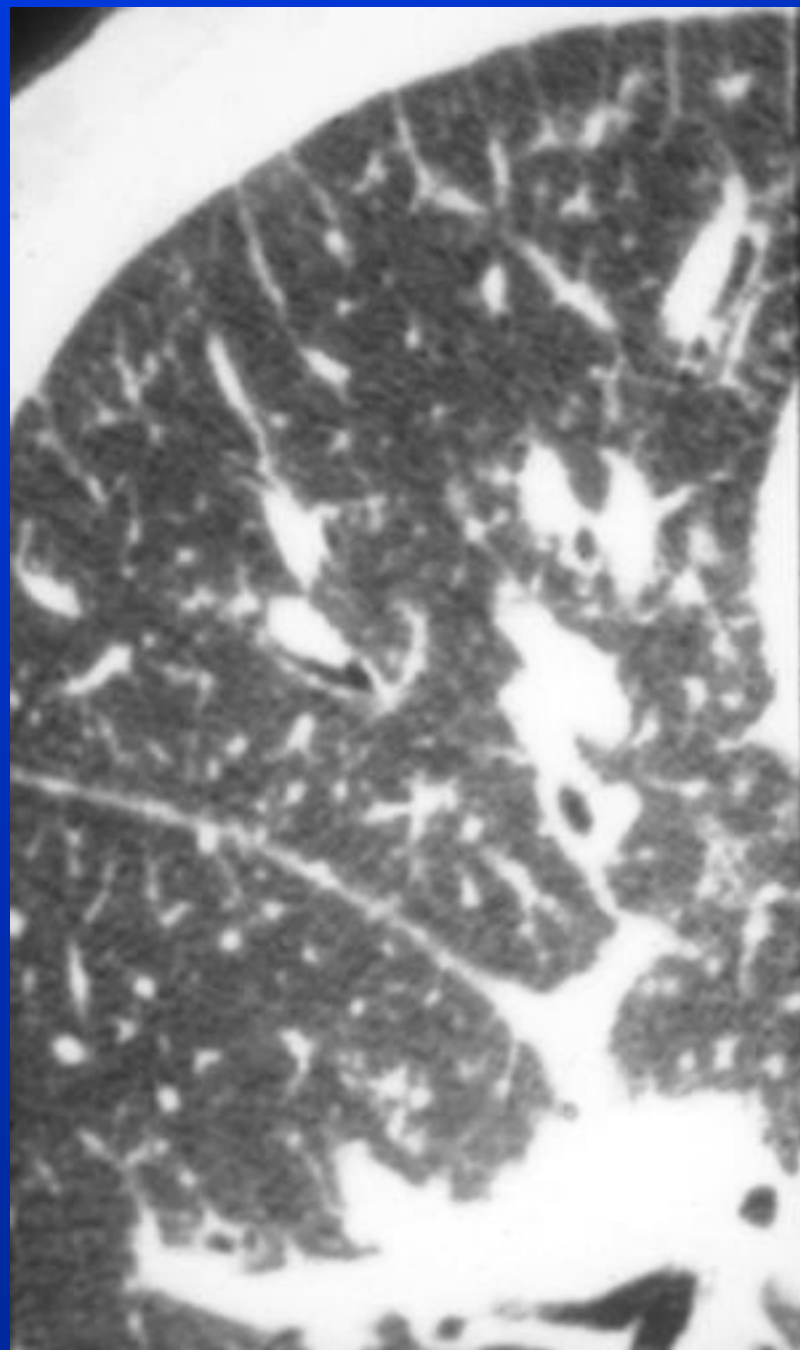
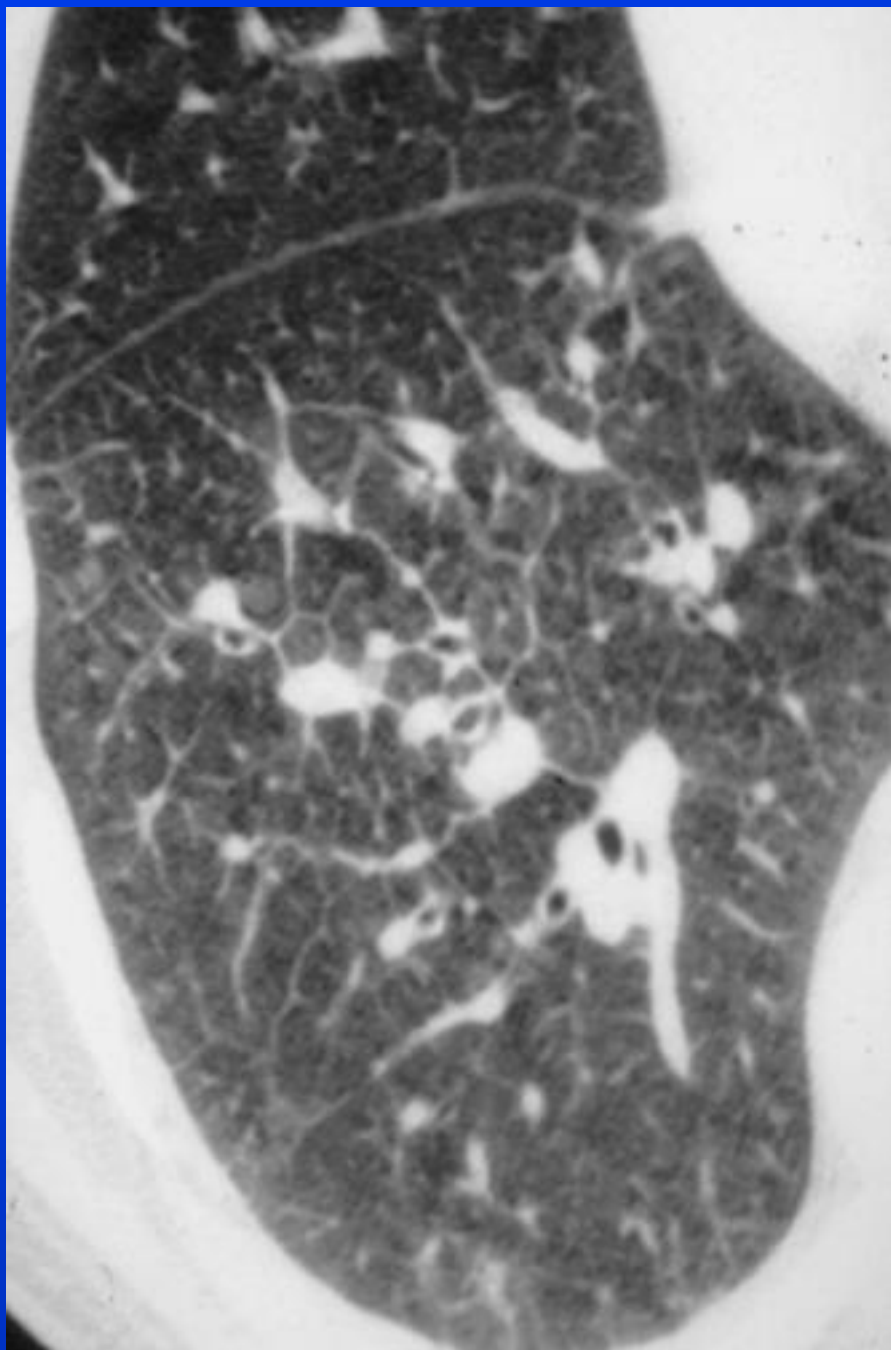
- Nodulaire :BBS, LK, SK
- Régulier: HTV
- Irrégulier : fibrose (BBS +++)

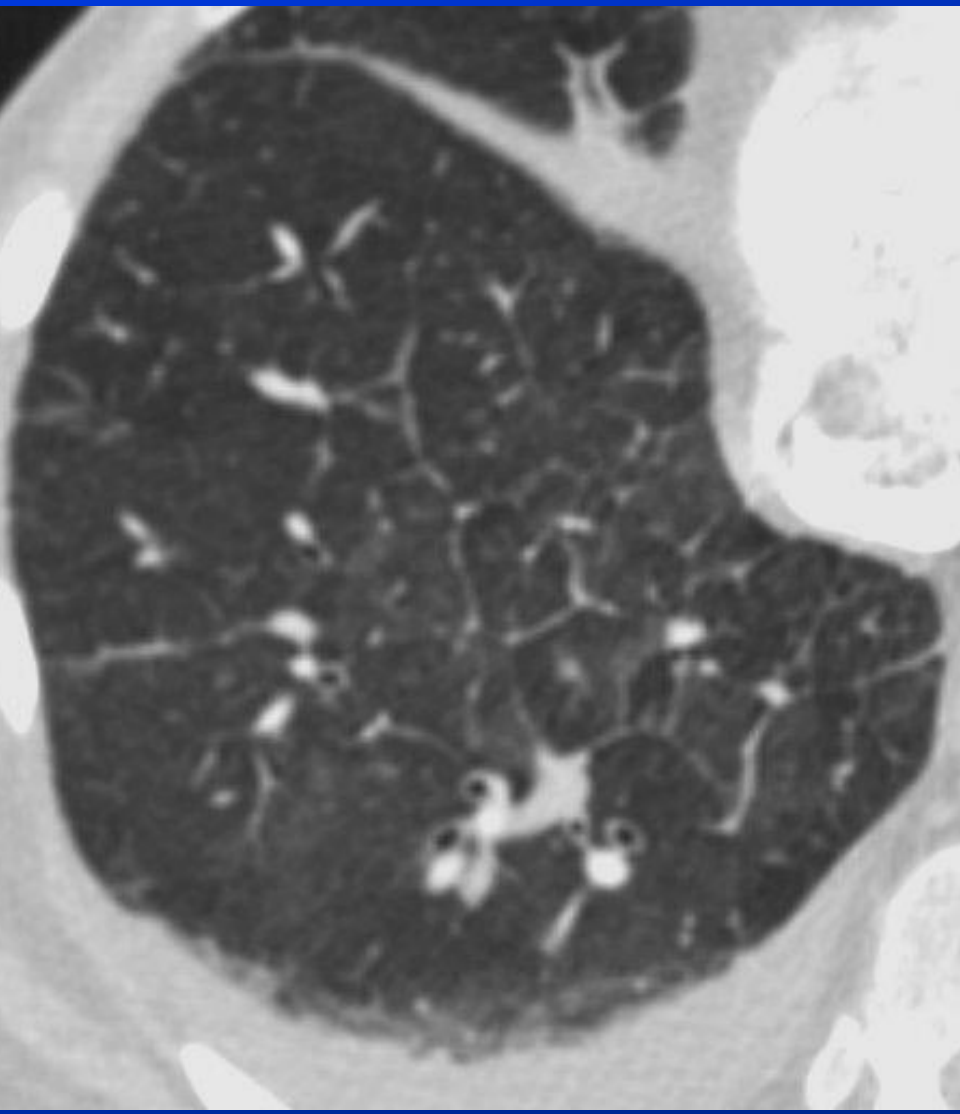
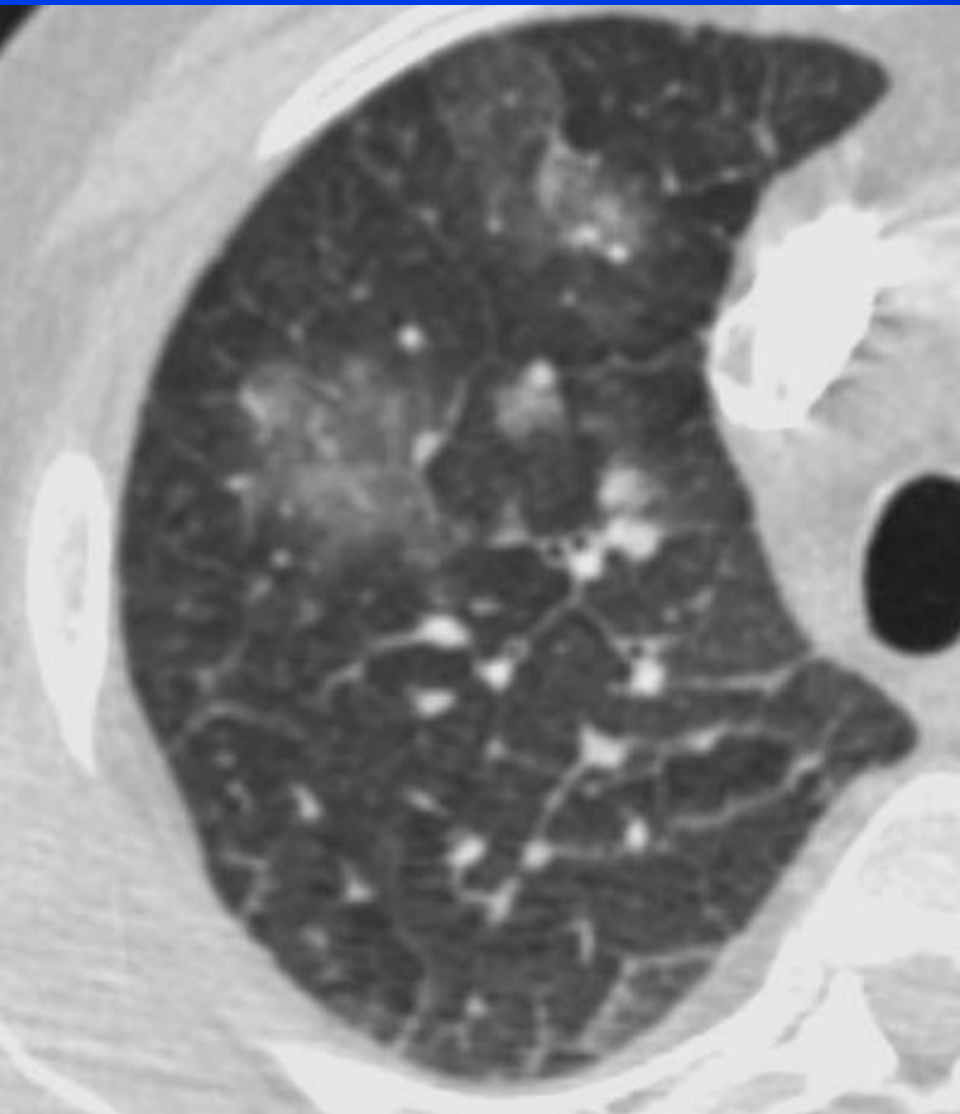


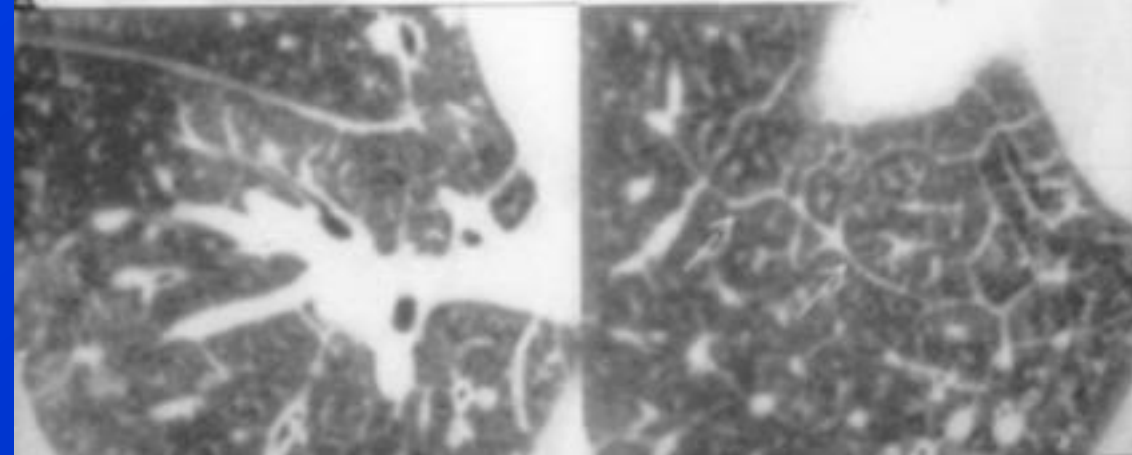
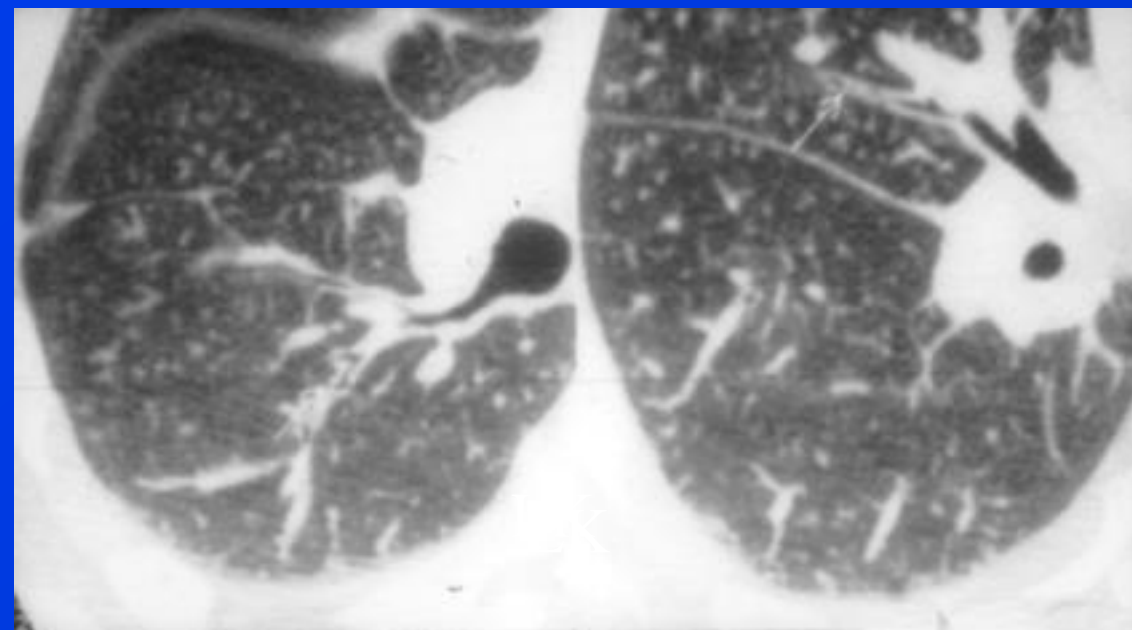
Atteinte septale inter lobulaire et sous pleurale

- 1 HTV (y compris MVO)
- 1 LK
- 1 BBS

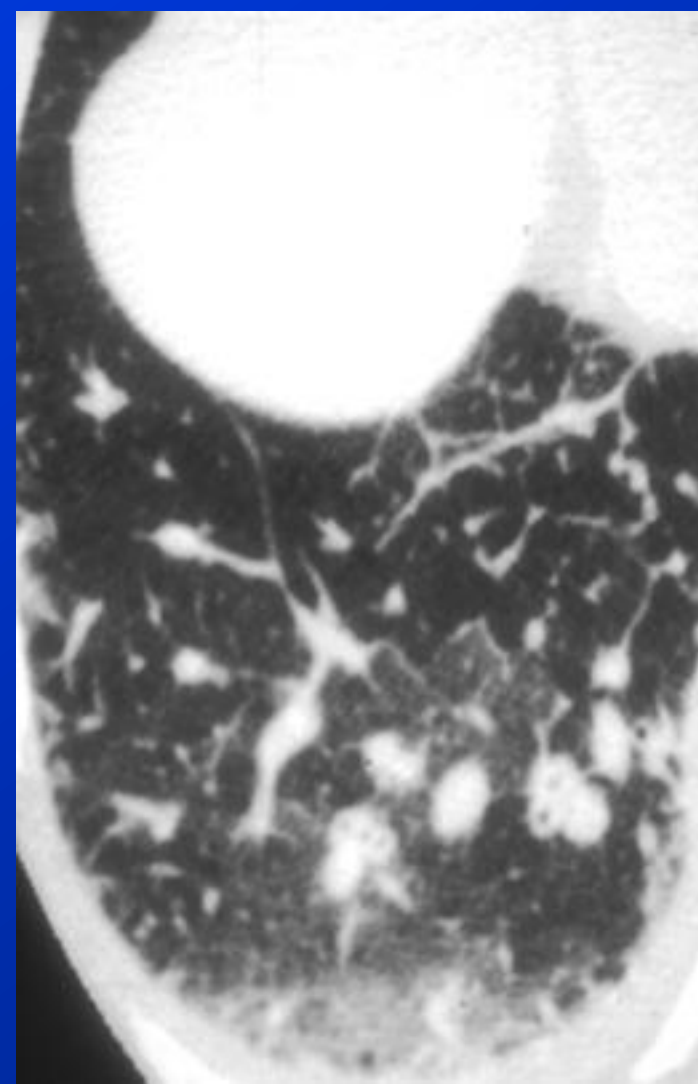
- 1 Et ...
 - amylose, gaucher, lymphome,
 - H1N1, paracoccidiomycose
 - Ppt éosinophile (Churg, AEP)
 - Erdheim- Chester







LK



HTV

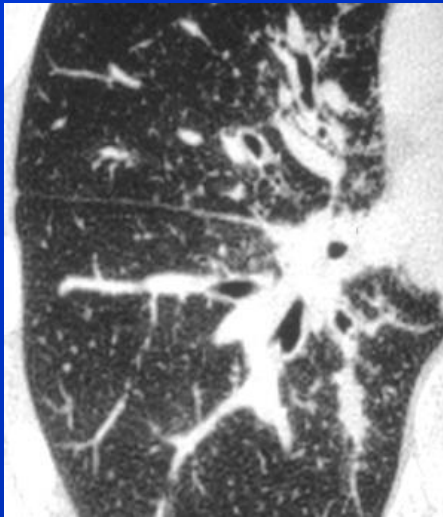
PID: Interstitium péri-broncho-vasculaire + Septa interlobulaires.

- BBS
- LK
- HTV

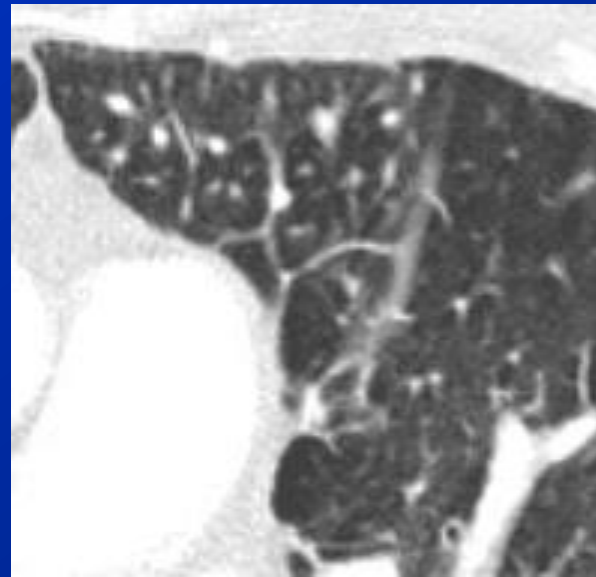
Comparison of High Resolution CT Findings of Sarcoidosis, Lymphoma, and Lymphangitic Carcinoma: Is There Any Difference of Involved Interstitium?

Osamu Honda, Takeshi Johkoh, Kazuya Ichikado, Shigeyuki Yoshida, Naoki Mihara, Masahiro Higashi, Noriyuki Tomiyama, Munehiro Maeda, Seiki Hamada, Hiroaki Naito, Noriyuki Takeuchi, Satoru Yamamoto, and Hironobu Nakamura

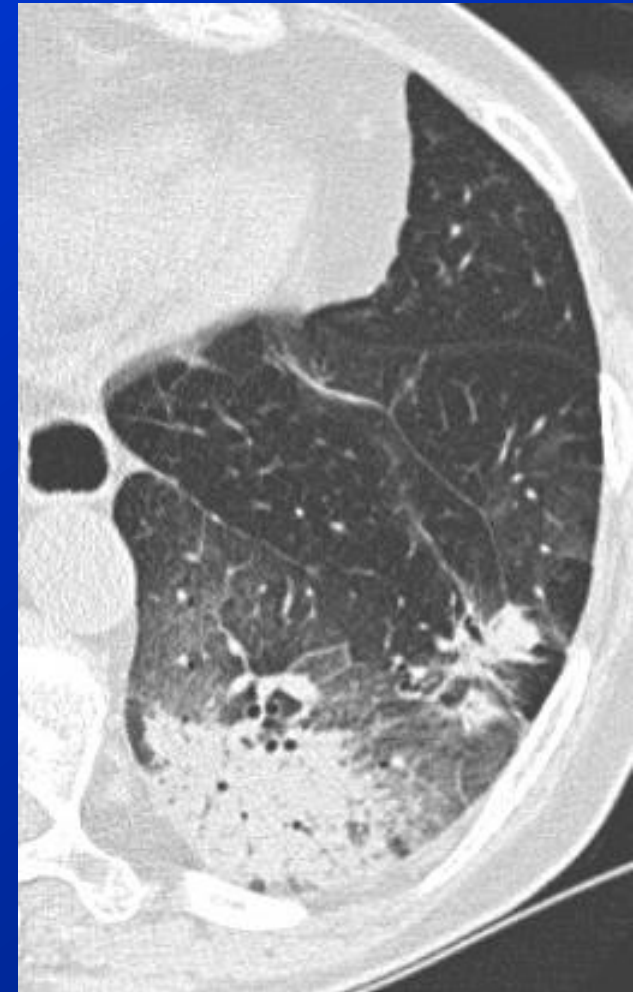
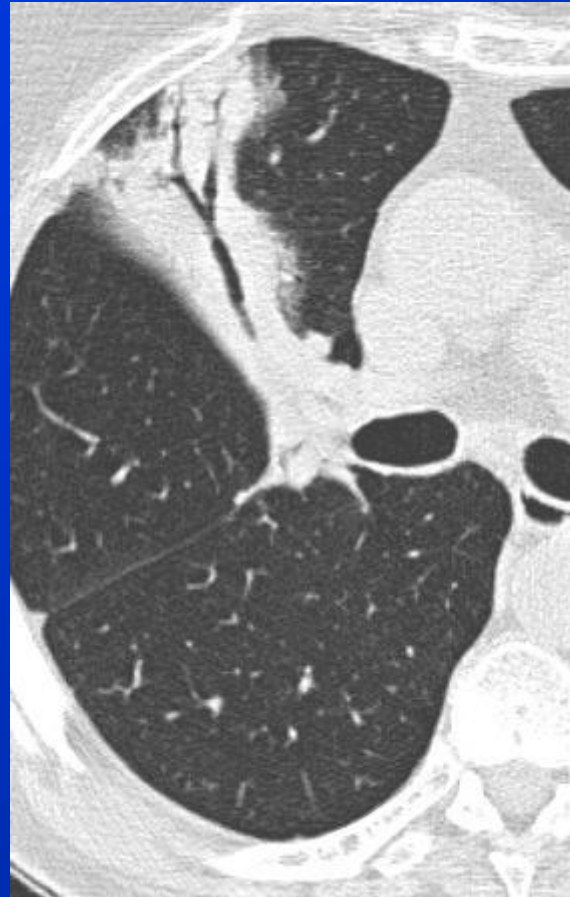
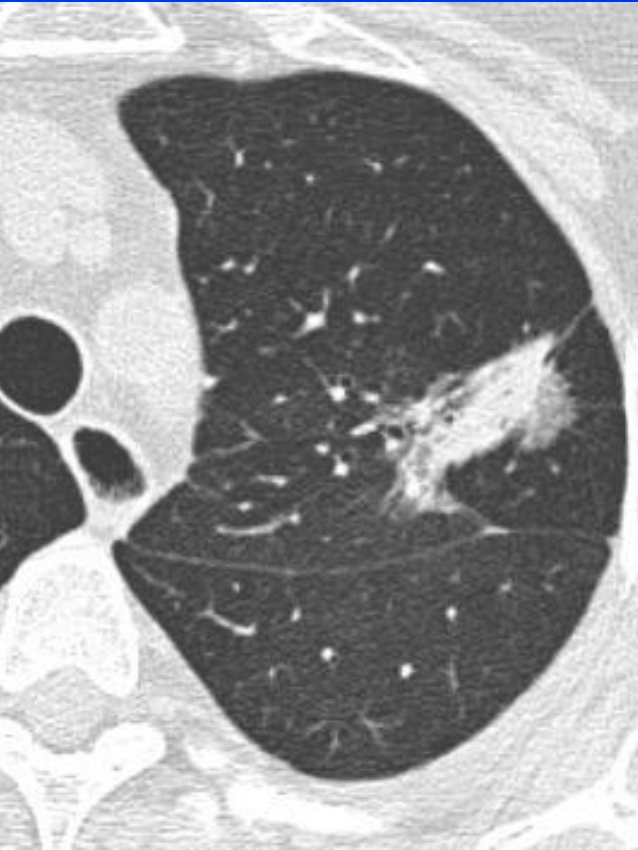
1 BBS
Bilat, PériBV



1 Lymphangite K
Unilat., septa IL et SP

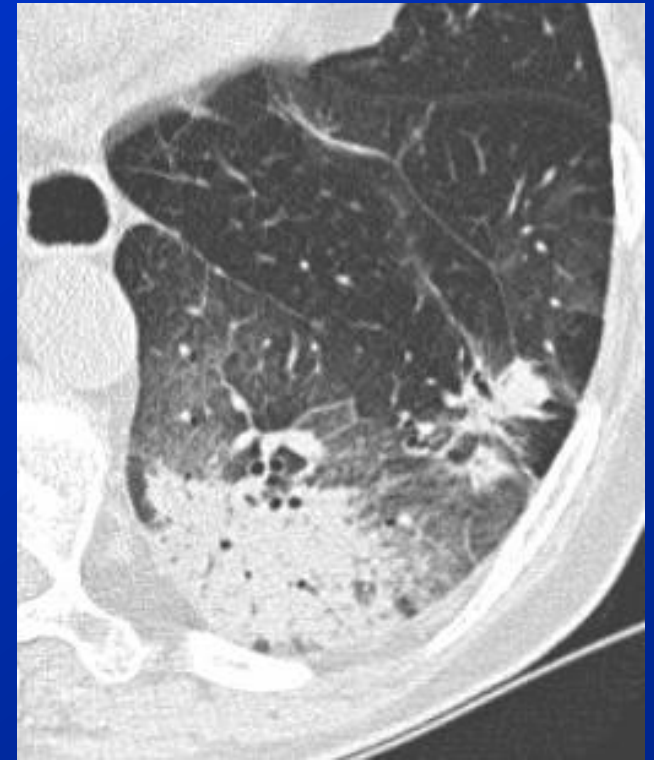


Condensations « alvéolaires »

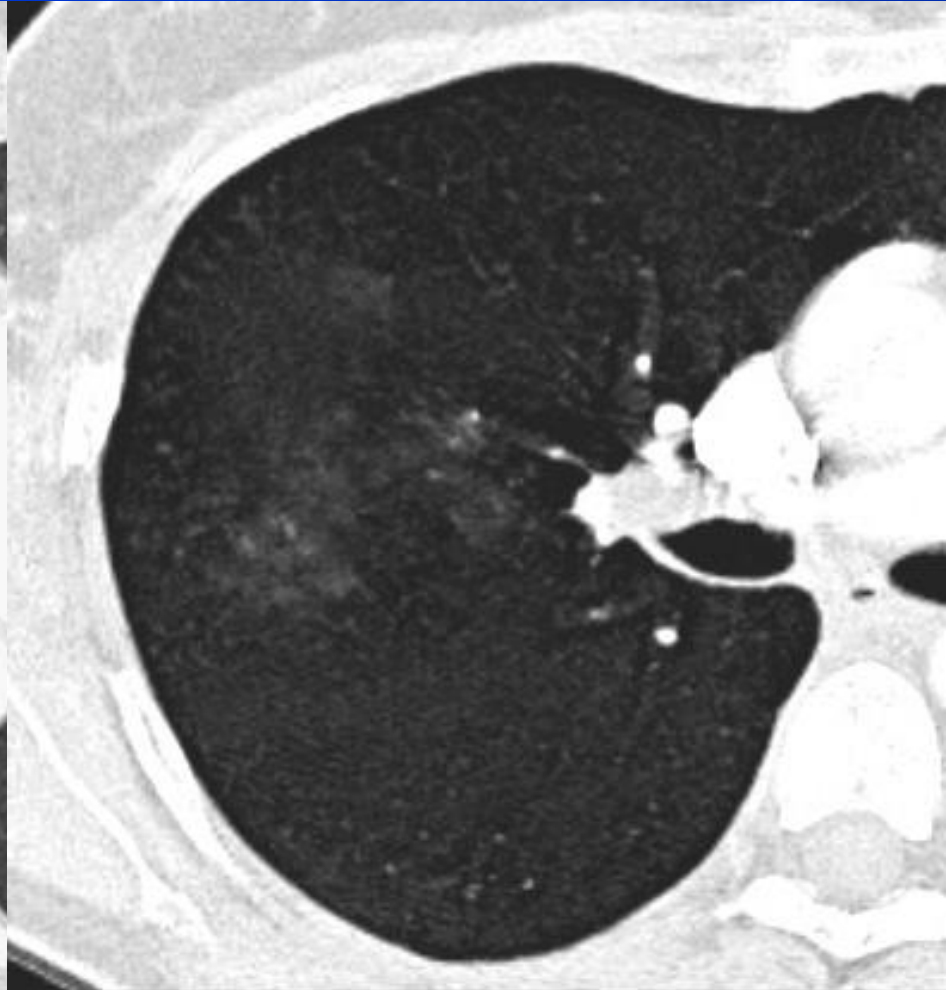


Condensations « alvéolaires » « chroniques » du sujet Agé

- 1 KBA
- 1 Lymphome
- 1 Pneumopathie Chronique
- 1 Pneumopathie lipidique
- 1 BOOP



Verre dépoli



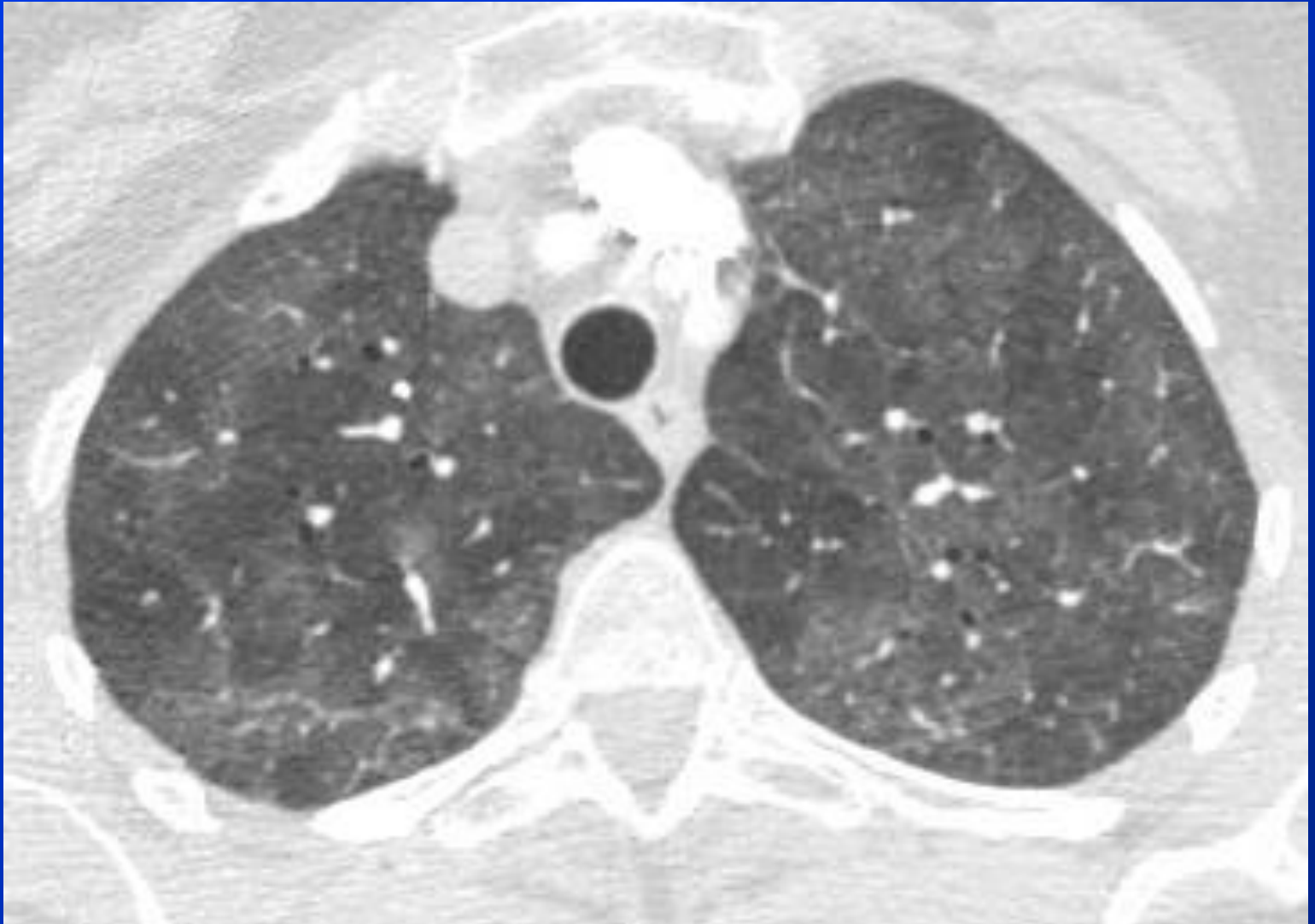
Verre dépoli = Aspécifique

- 1 Caractère: Aigu ou chronique
- 1 Contexte: I°D., I. C., tabac, profession, médicament, les oiseaux +++
- 1 Signes TDM associés: Septa IL, kyste, fibrose, trappage expiratoire

Verre dépoli « aigu »

- 1 Œdème pulmonaire
- 1 Hémorragie pulmonaire
- 1 Pneumopathie médicamenteuse
- 1 Infection à mycoplasme
- 1 PHS A ou subA
- 1 AIP
- 1 Immuno-déprimé
 - PCP,
 - virus (herpès, CMV),
 - BOOP,
 - aspergillose (nodule et halo), candida, herpès, Kaposi

PCP

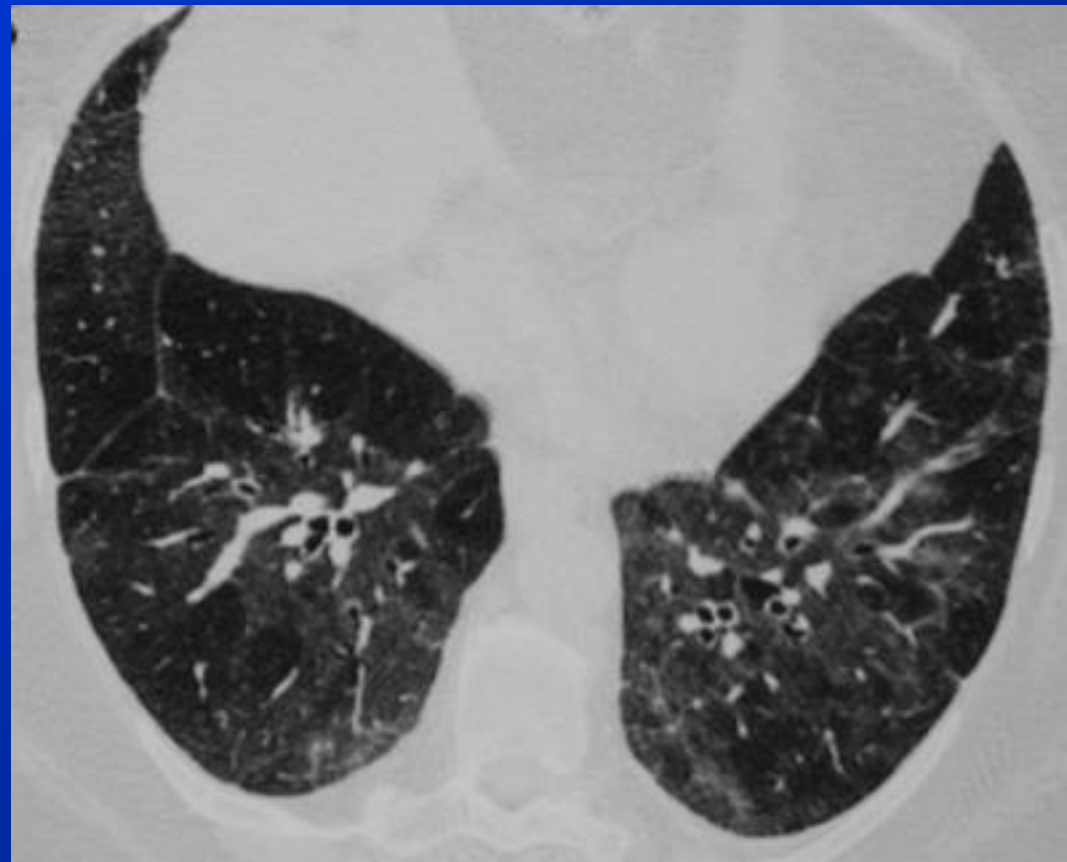


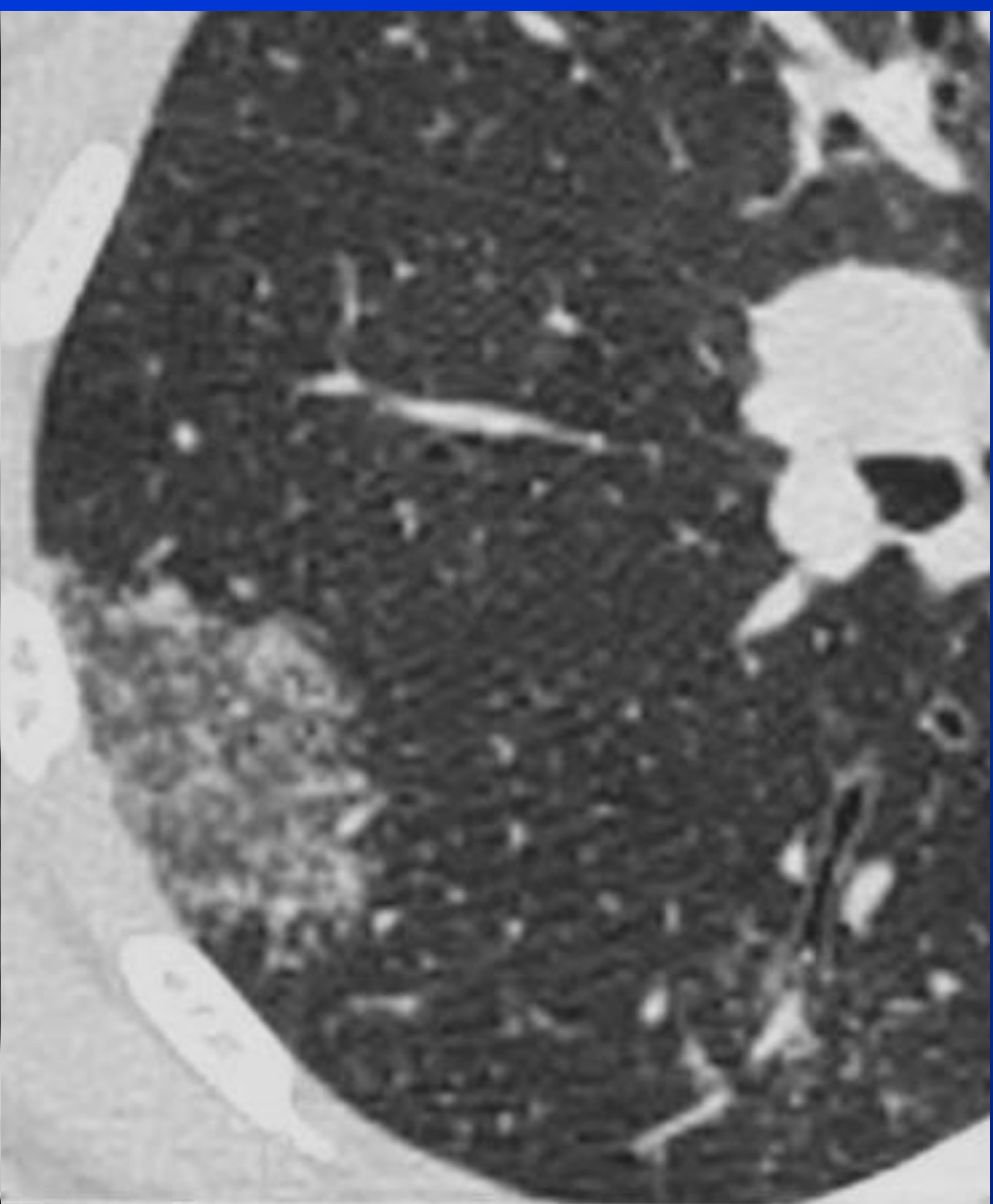
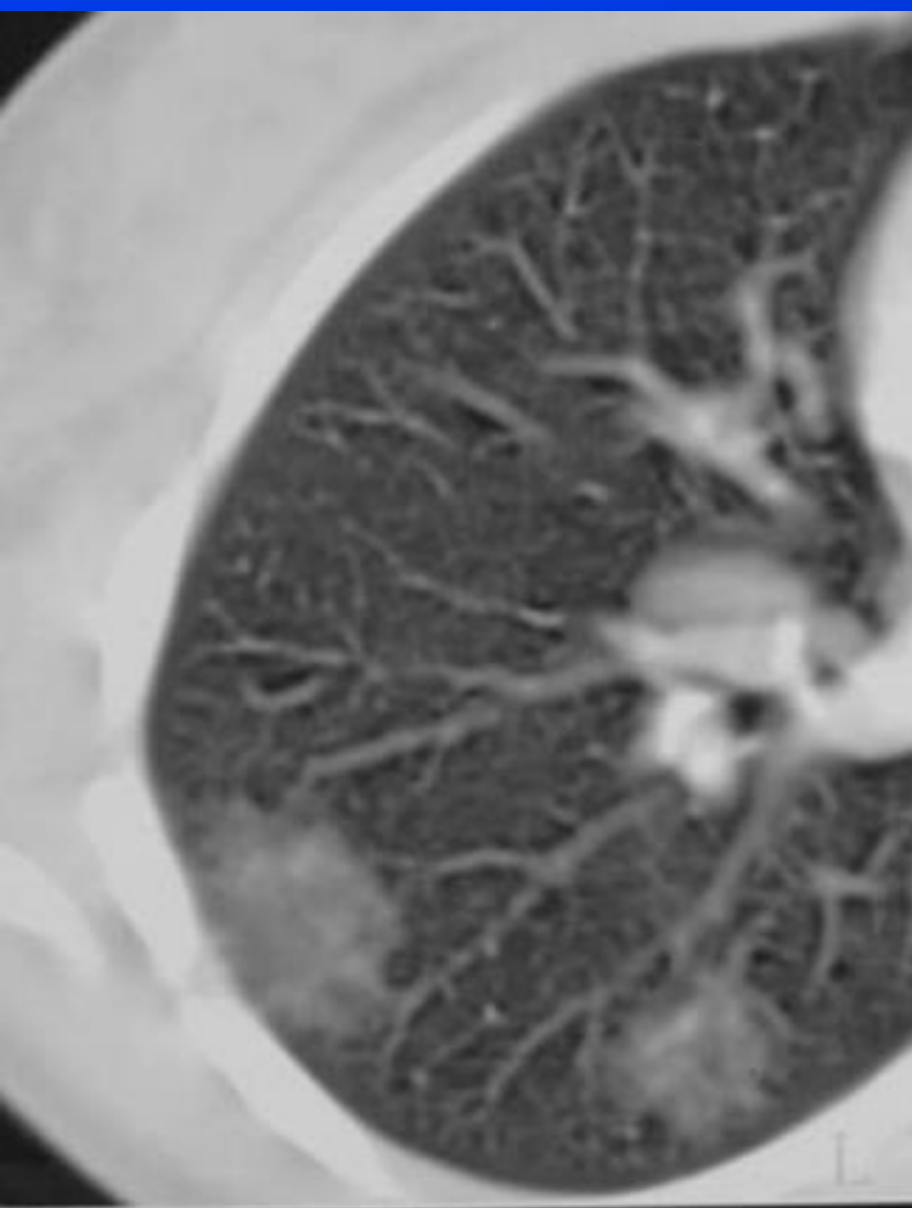
Verre dépoli « Chronique »

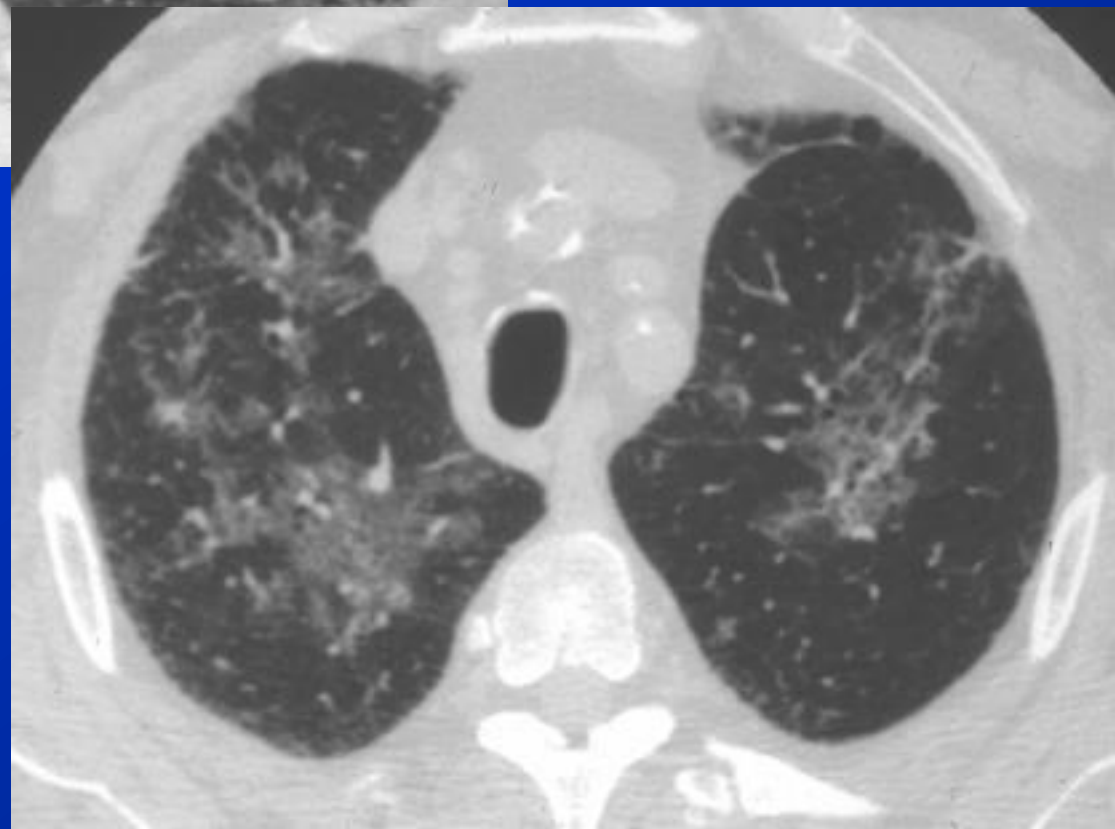
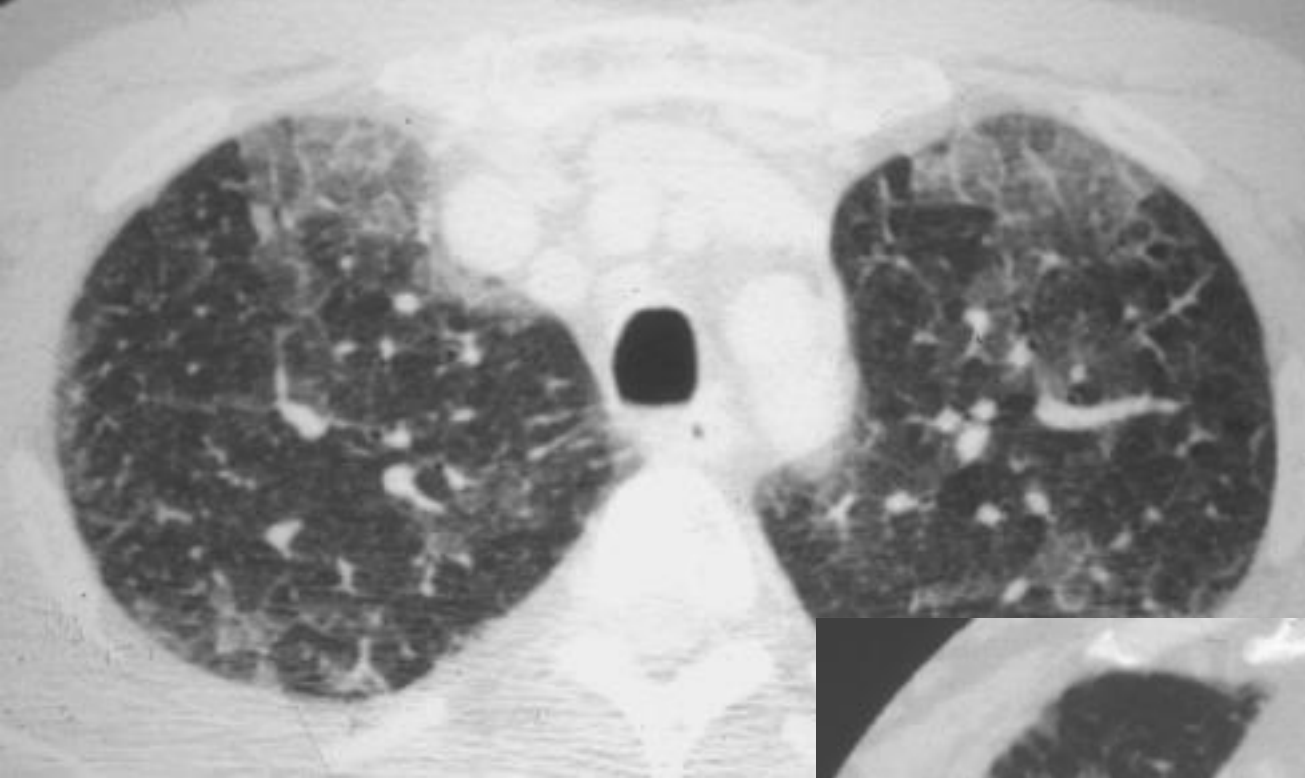
- 1 Comblement alvéolaire
- 1 Epaissement pariéto-alvéolaire
- 1 Augmentation du flux capillaire

PID: verre dépoli: F. isolée

- 1 NSIP-pneumopathie médicamenteuse
- 1 DIP – RBILD.
- 1 BBS.







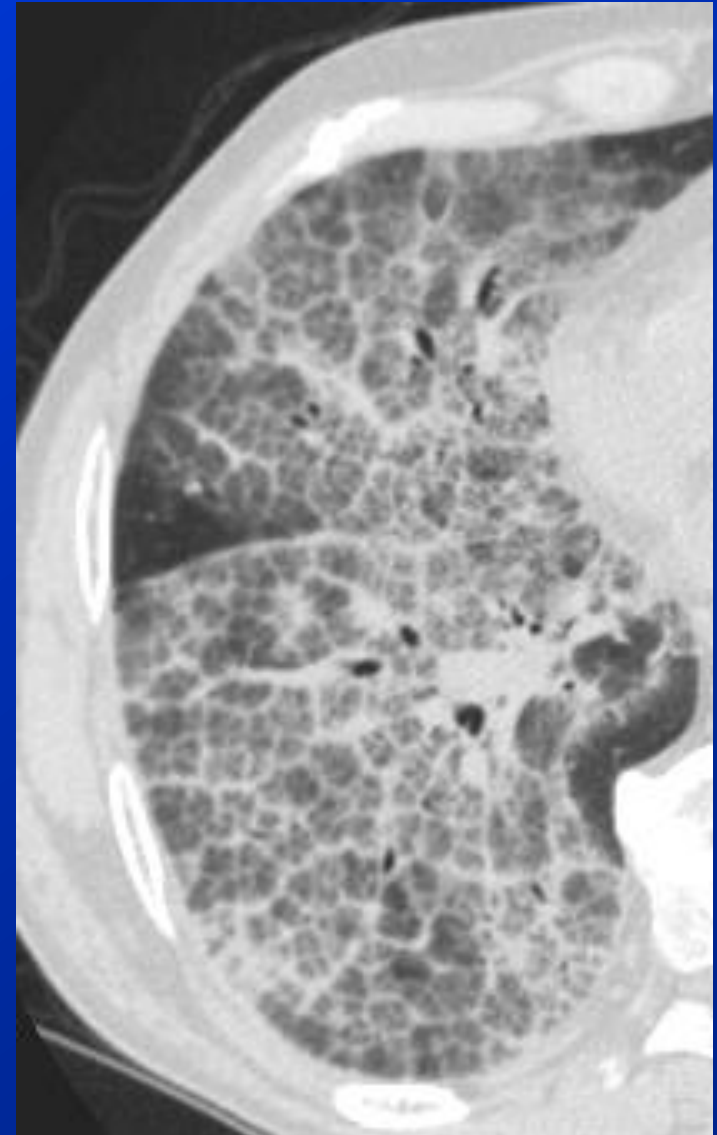
Verre dépoli + crazy paving LBA +++

1 Protéinose Alvéolaire

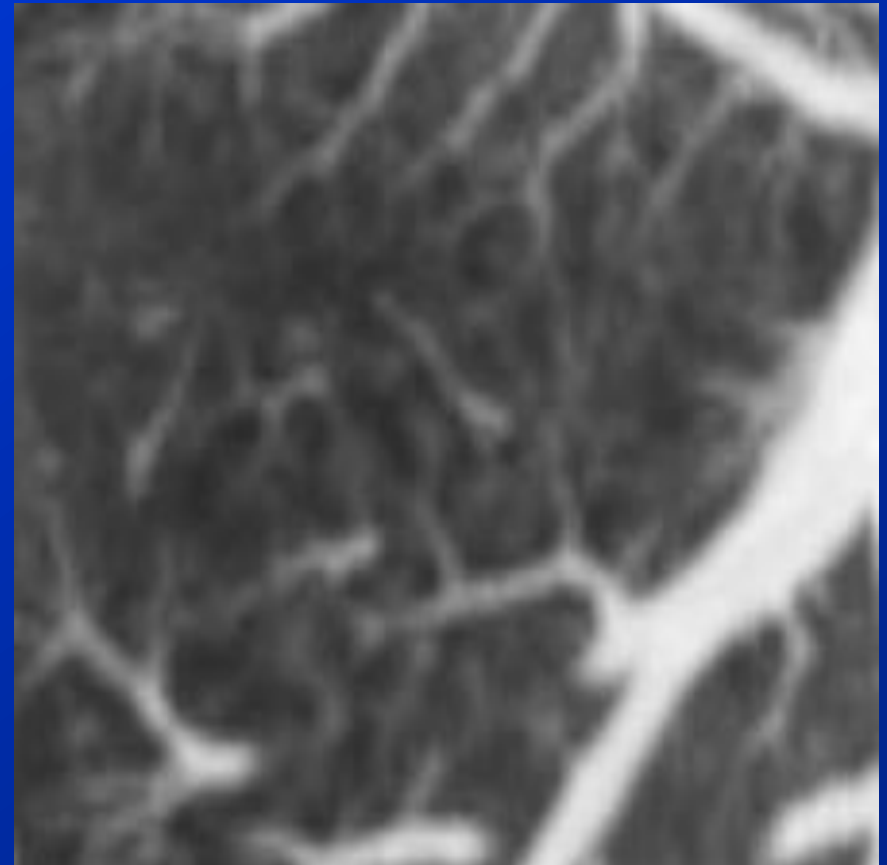
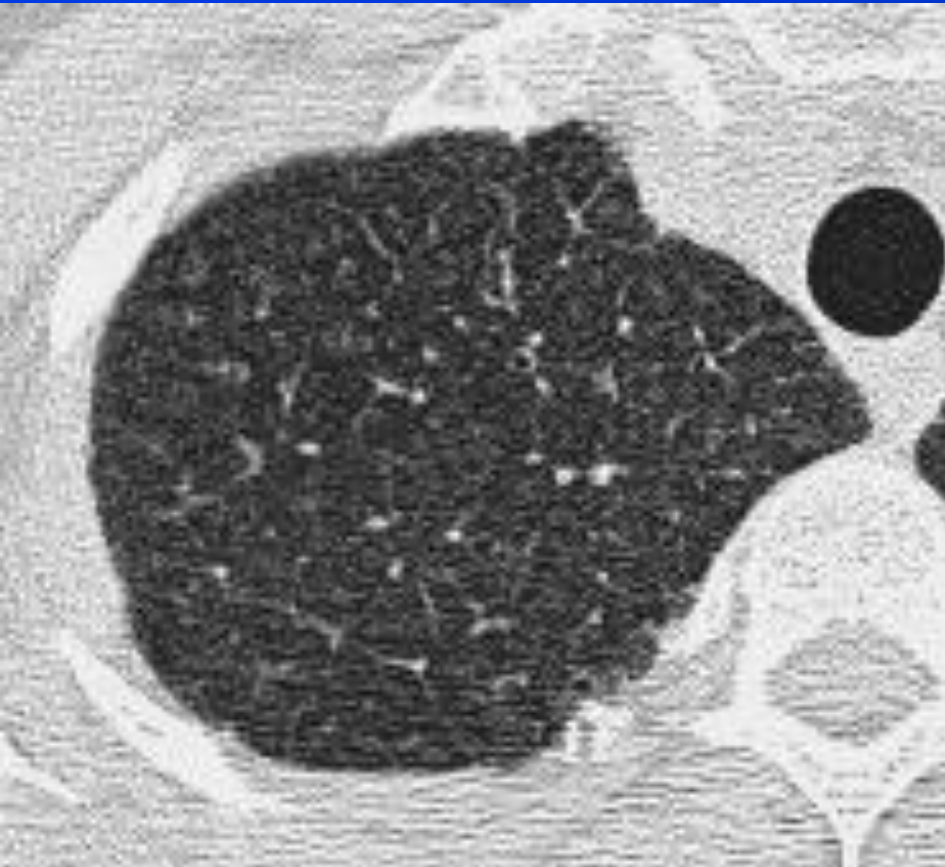
1 KBA .

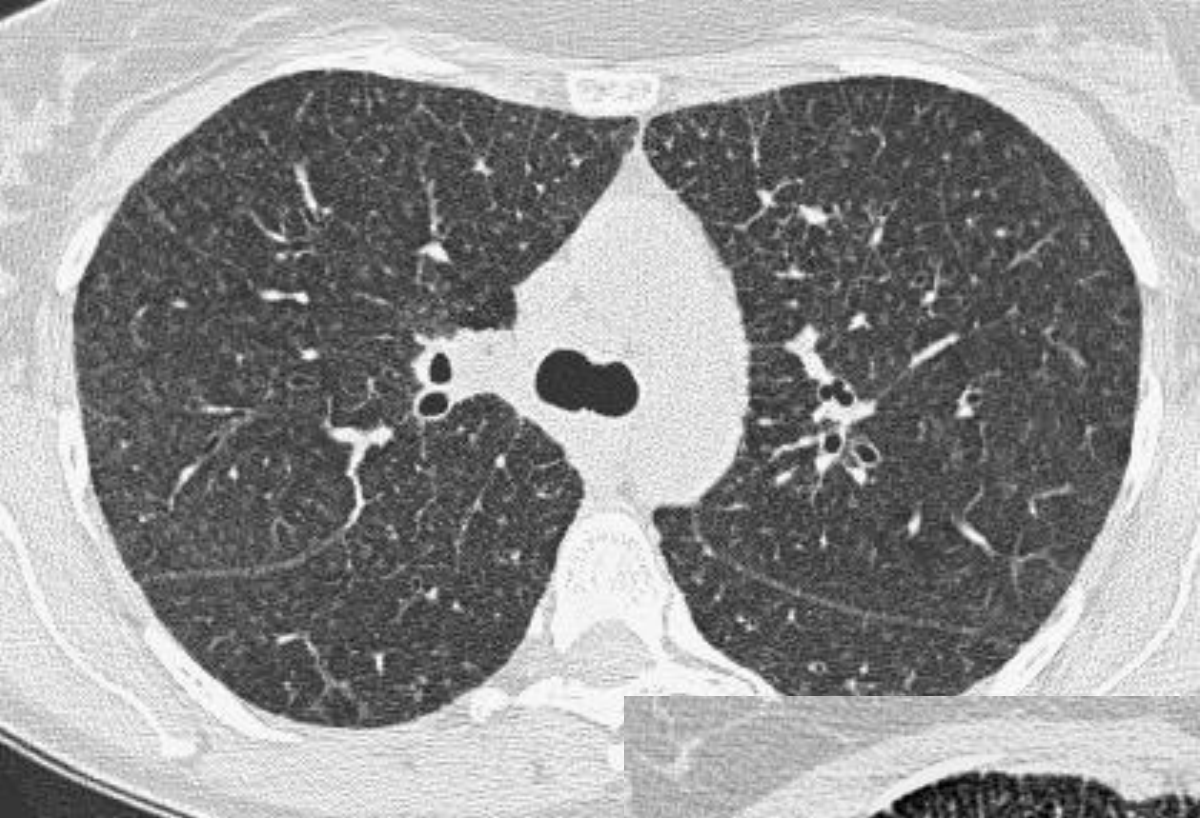
1 Mais aussi :

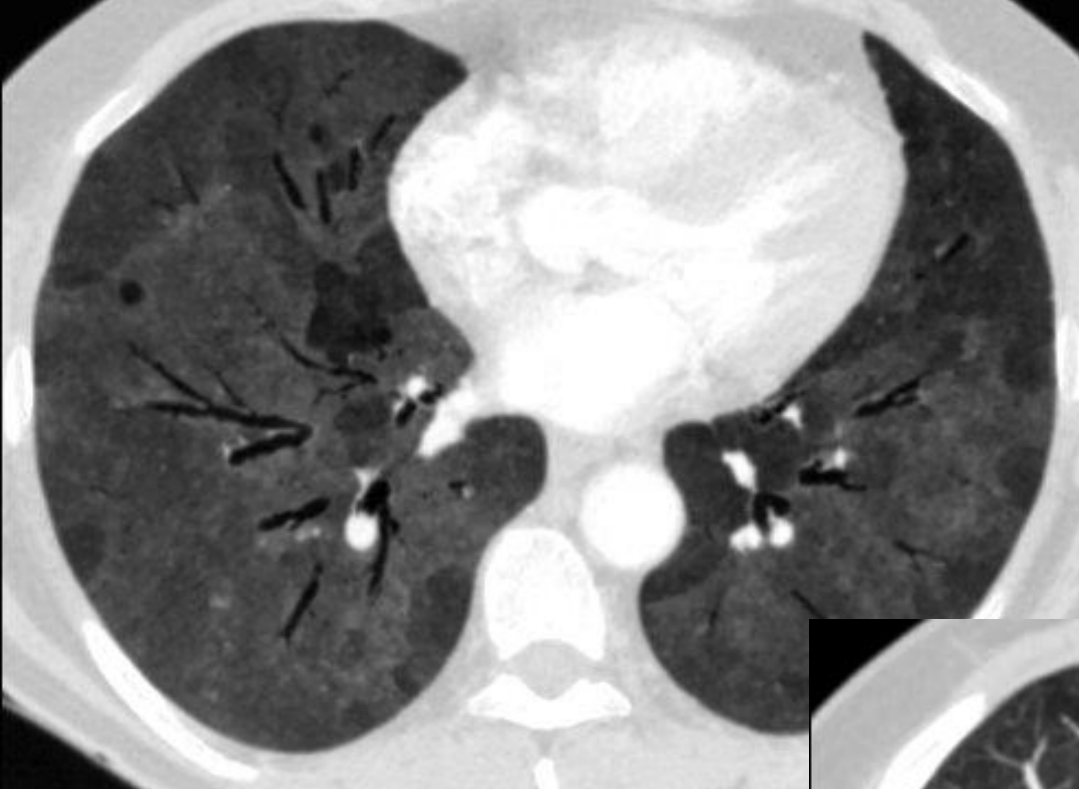
- Pneumonie bactérienne,
- pneumocystose,
- PHS,
- pneumopathie lipidique,
- PCE,
- AIP, UIP
- hémorragie-œdème pulmonaire
- Ppt radique, médicamenteuse



V dépoli:avec micro-nodules CL:
PHS ++ - UN REFLEXE +++=
Expi







Poumon en mosaïque (Stern AJR 1995, Hansell)

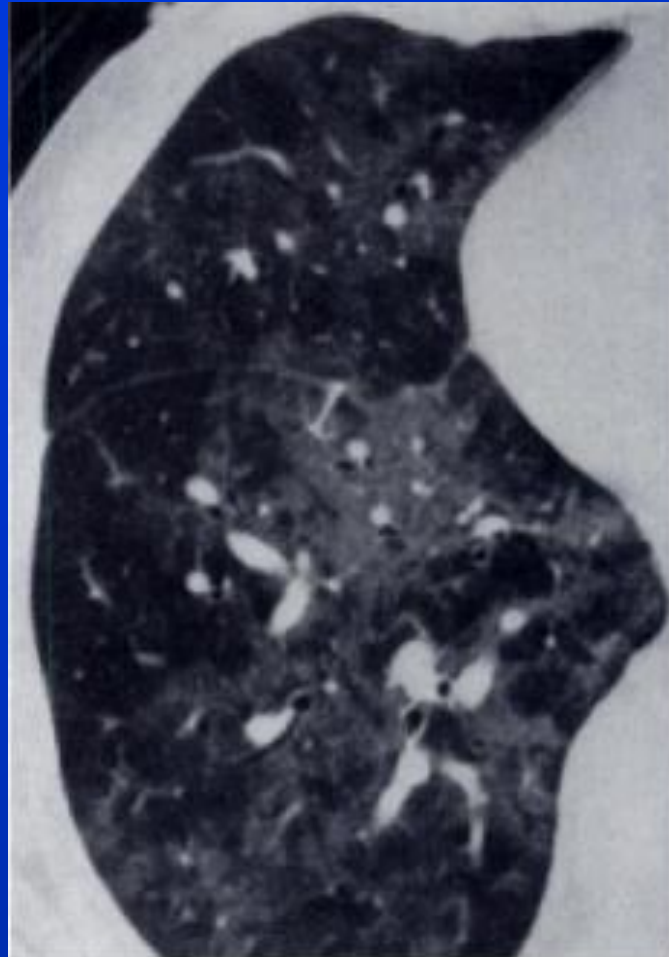
Disease	Radiologic Features	
	Vessels	CT Scans ^a
Small-airway disease	Decreased size and number in lucent lung compared with higher-attenuation lung	Air trapping present as evidenced by no increase in attenuation or decrease in volume of lucent lung on expiratory CT scans
Vascular lung disease	Same as small-airway disease	No air trapping seen on expiratory CT scans
Infiltrative diseases	Similar size and number of vessels in both regions of lung	No air trapping seen on expiratory CT scans

Aspect en mosaïque :

S. Associés

- 1 PID: nodules, kystes, septa, fibrose.....
- 1 Att. Vasculaire: A.P., A. Bronchique .
- 1 MPVA: Trappage Expiratoire

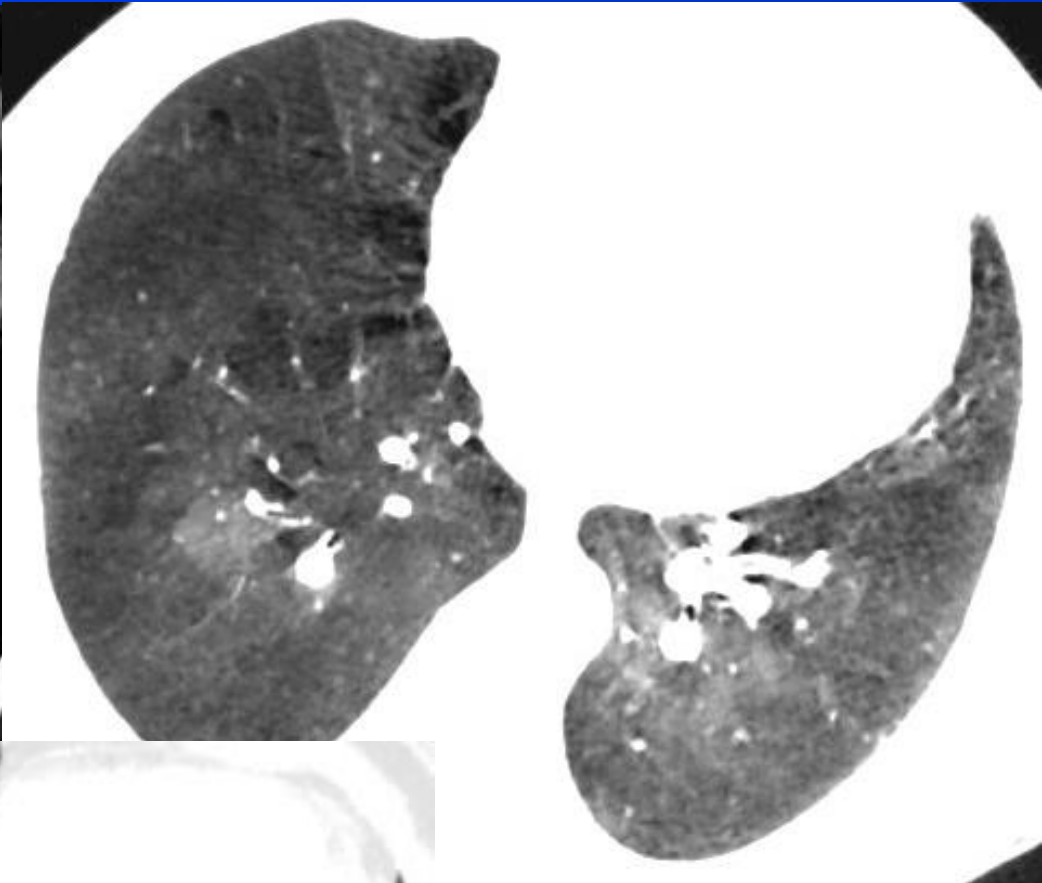
PID: Inspi = Pas de diff. Vx,
Expi = Pas de Trappage



PCP

Mosaïque et MPVVx

- 1 Stt dans EP Chronique
- 1 + rare dans HTAPP, Hémangiomatose capillaire



Indication des coupes en expiration

- 1 Dyspnée et/ou TVO non expliqué par l'inspiration
- 1 Aspect en mosaïque en inspiration
- 1 Suspicion de PHS
- 1 Affection à risque de MPVA

Verre dépoli:avec atteinte kystique

- 1 Rayons de miel : fibrose
- 1 Emphysème : RBILD-DIP
- 1 Kystes:PCP,LIP,DIP

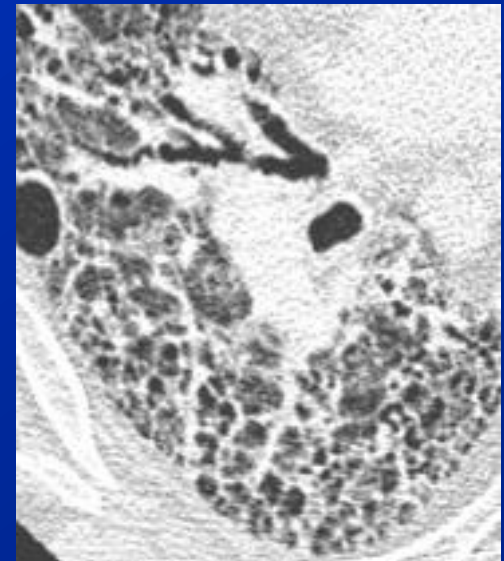
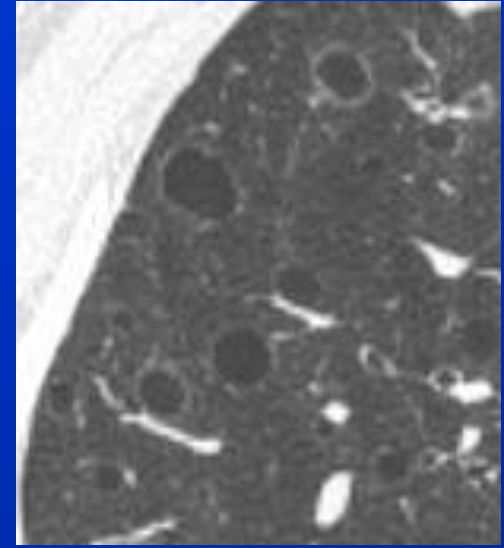


KYSTE PULMONAIRE

1 PAROI FINE

1 PARENCHYME ADJACENT
NORMAL

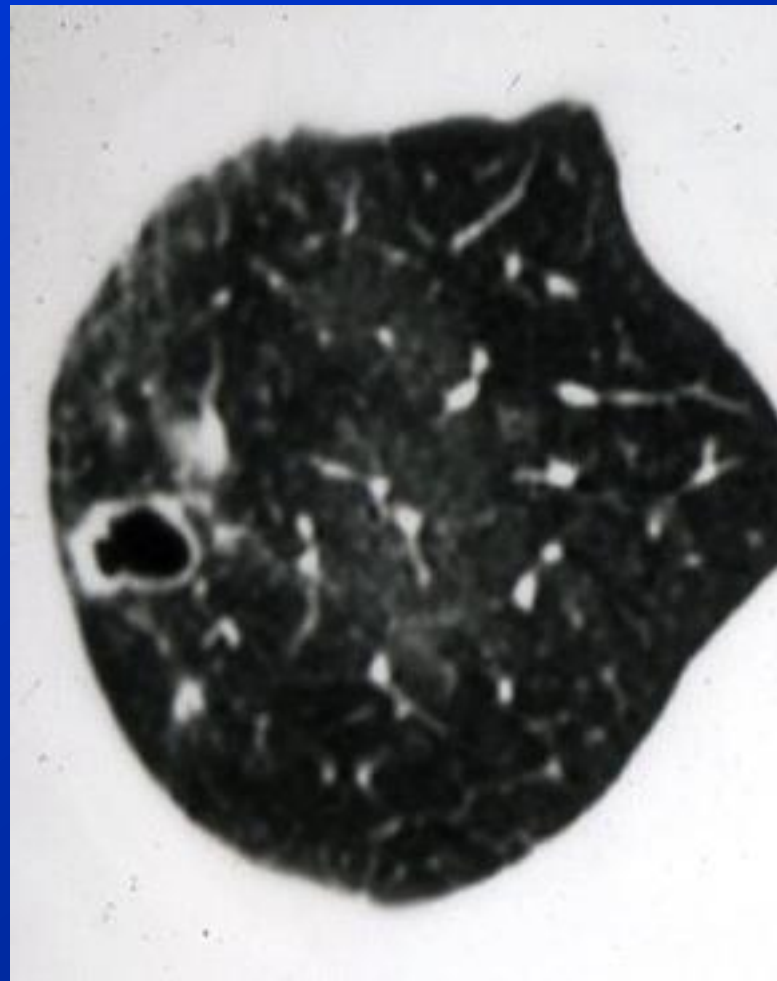
1 =/= FID



LESION KYSTIQUE UNIQUE (OU PAUCIKYSTIQUE)

CONTEXTE +++

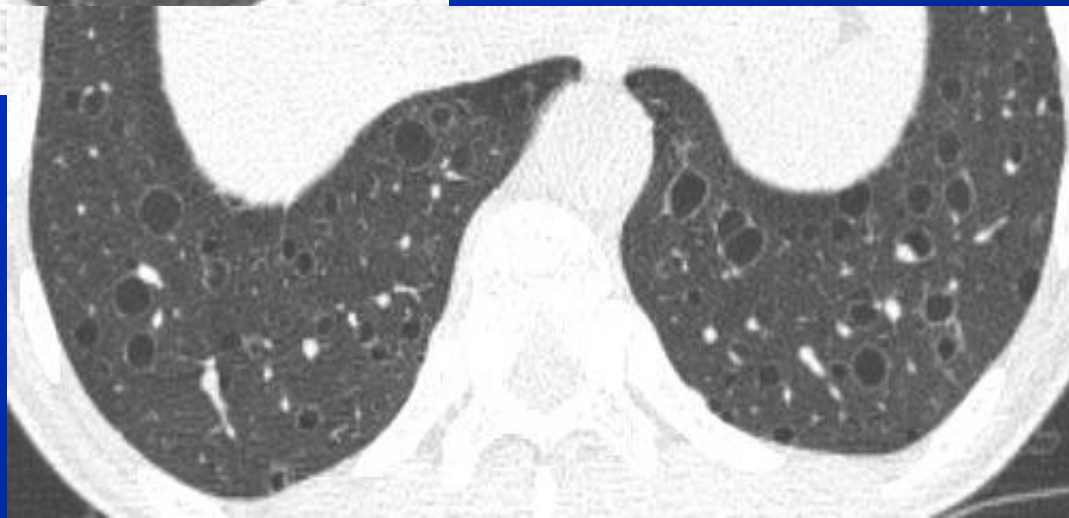
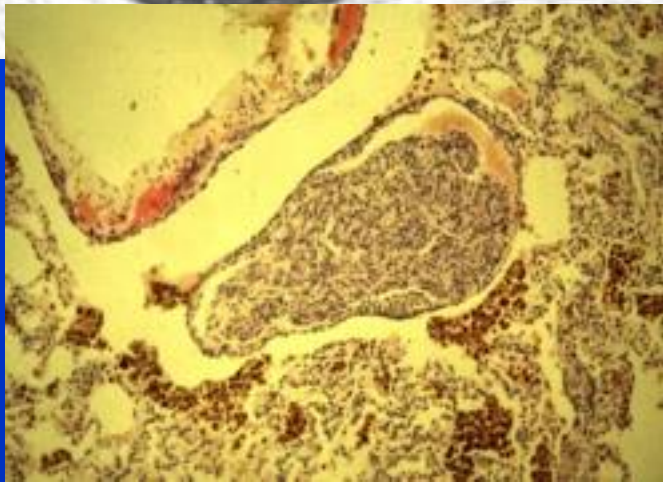
- 1 Infection
- 1 Tumeur
- 1 Traumatisme
- 1 Congénital
- 1 LIP

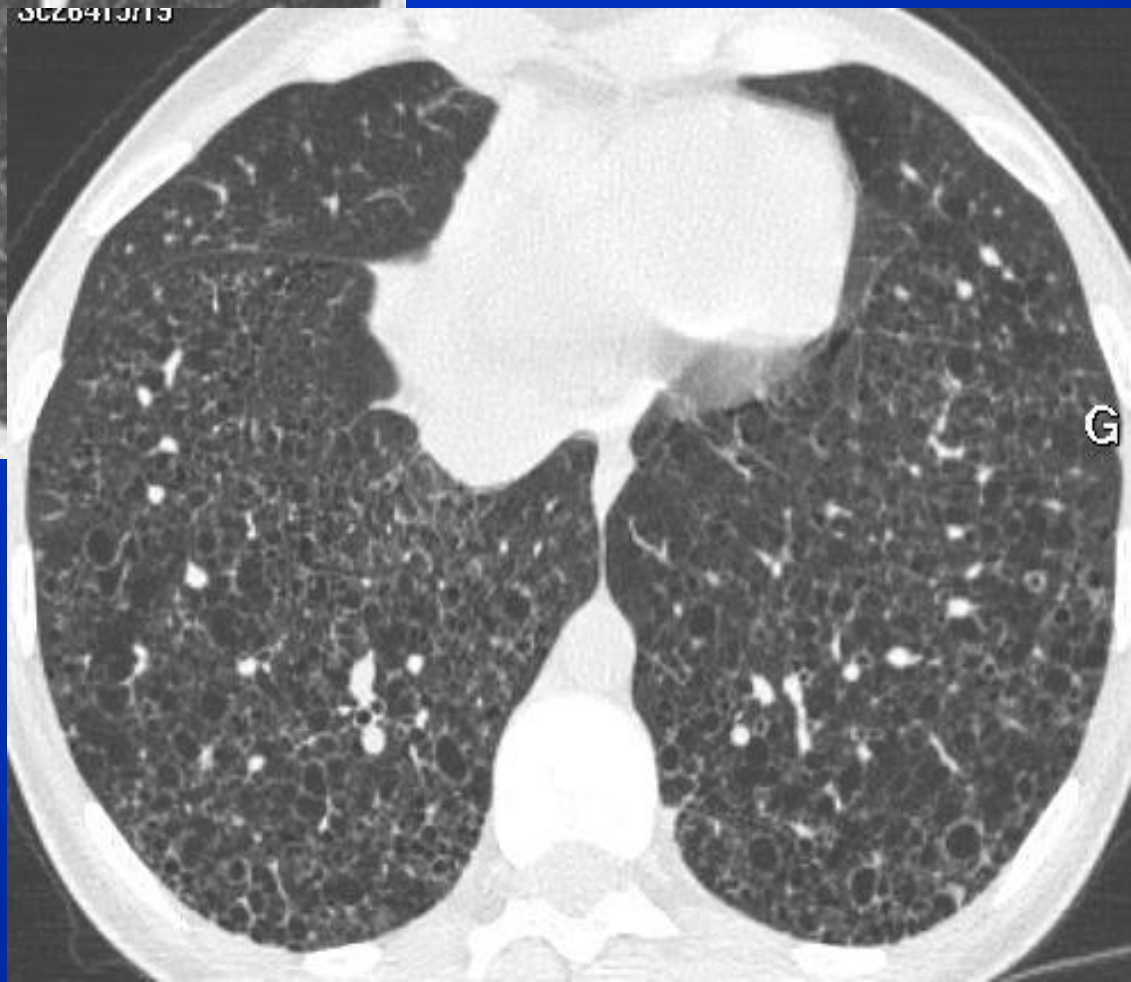
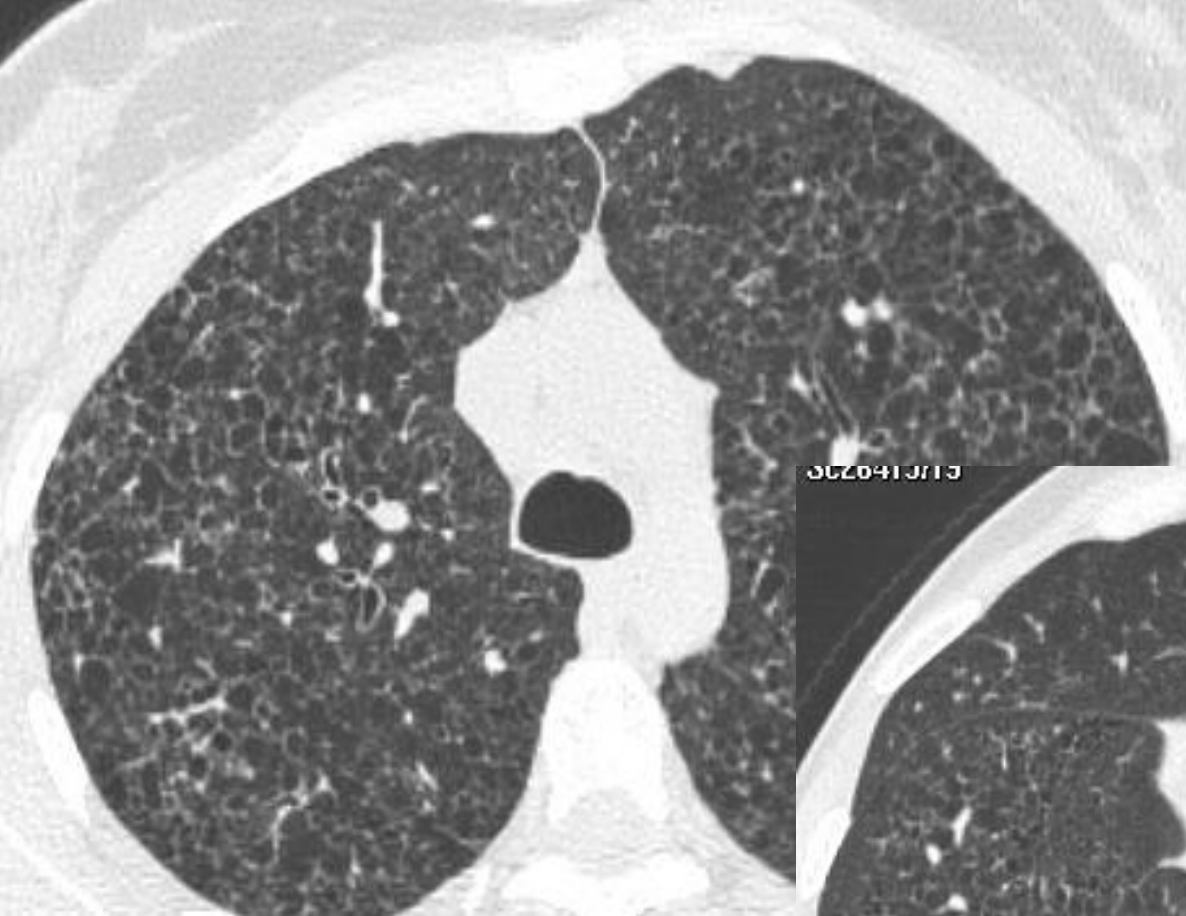


LESIONS KYSTIQUES MULTIPLLES

1 LYMPHANGIOMYOMATOSE

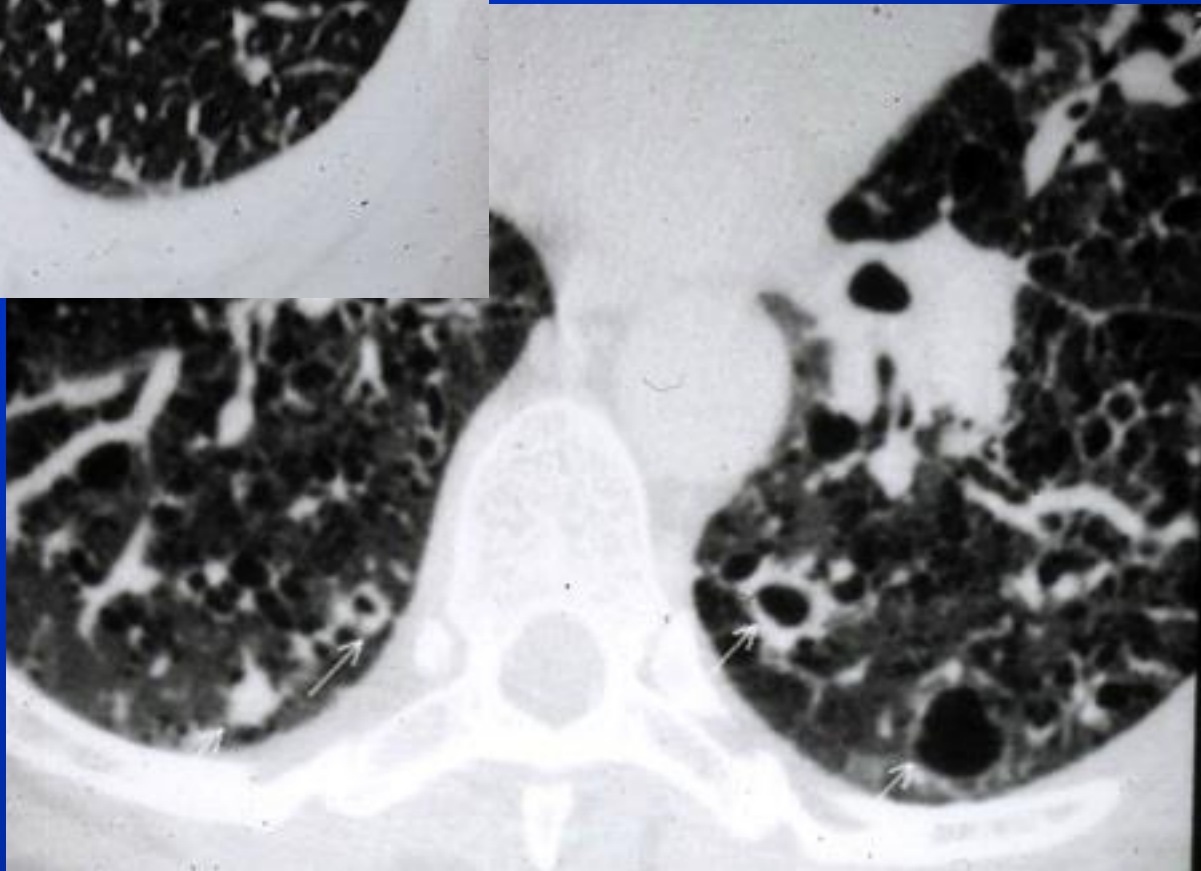
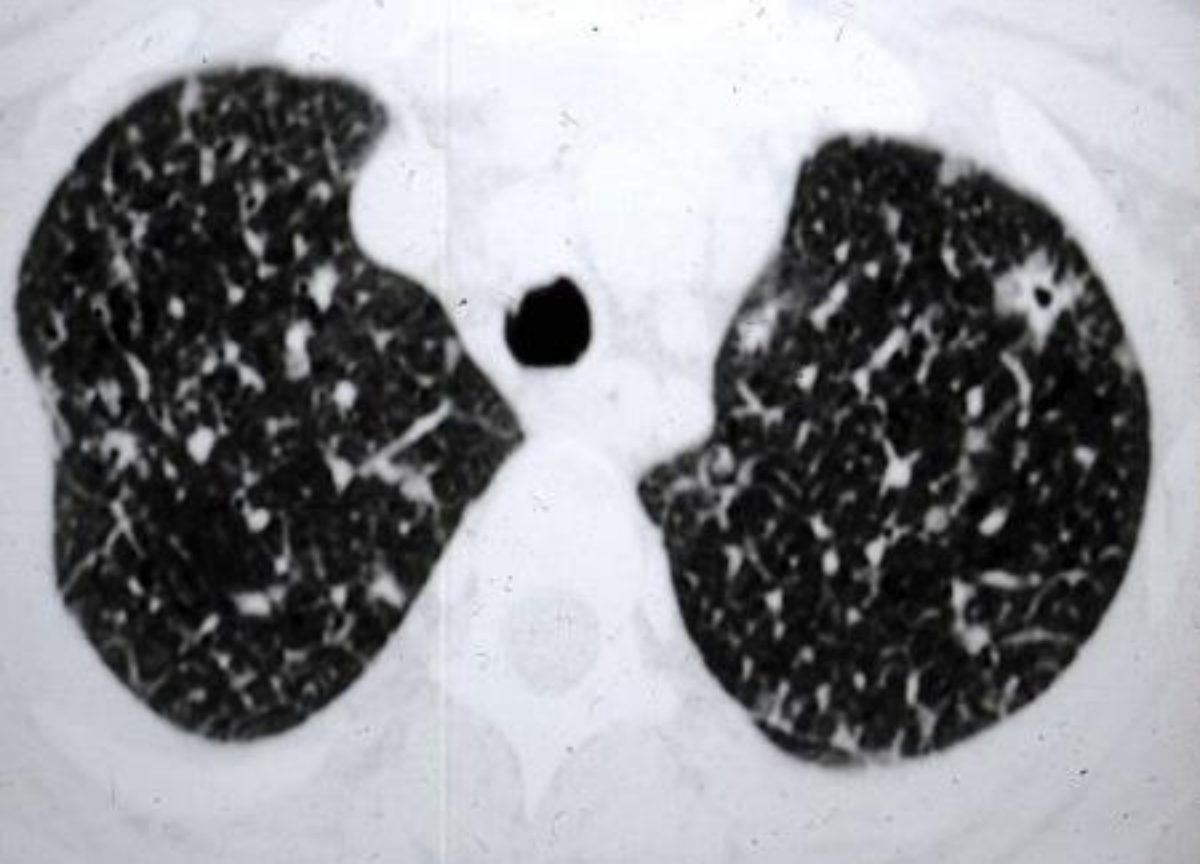
1 HLP

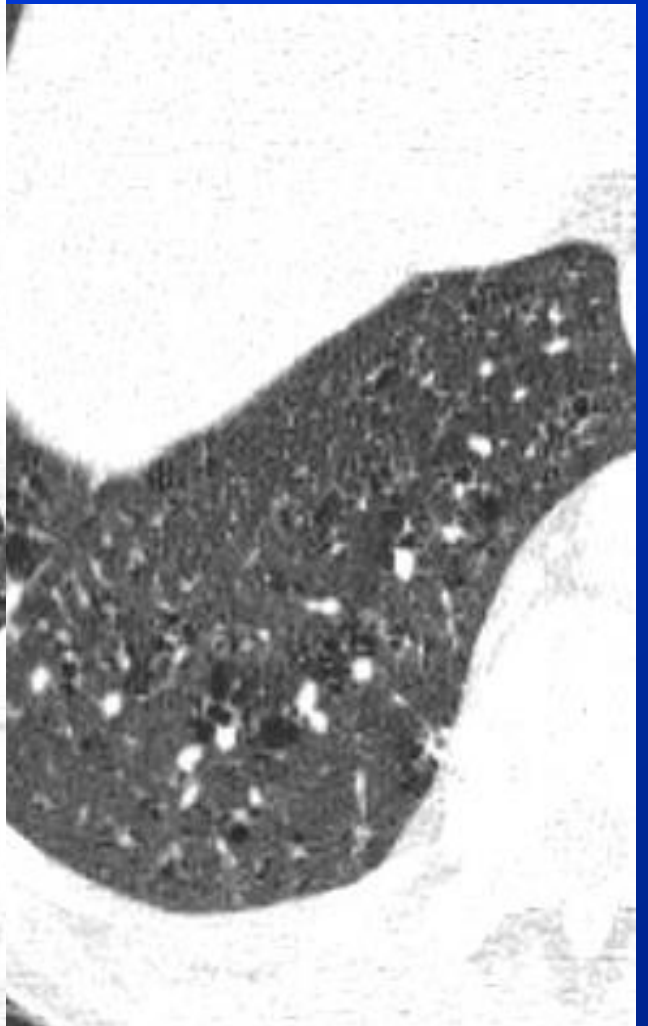
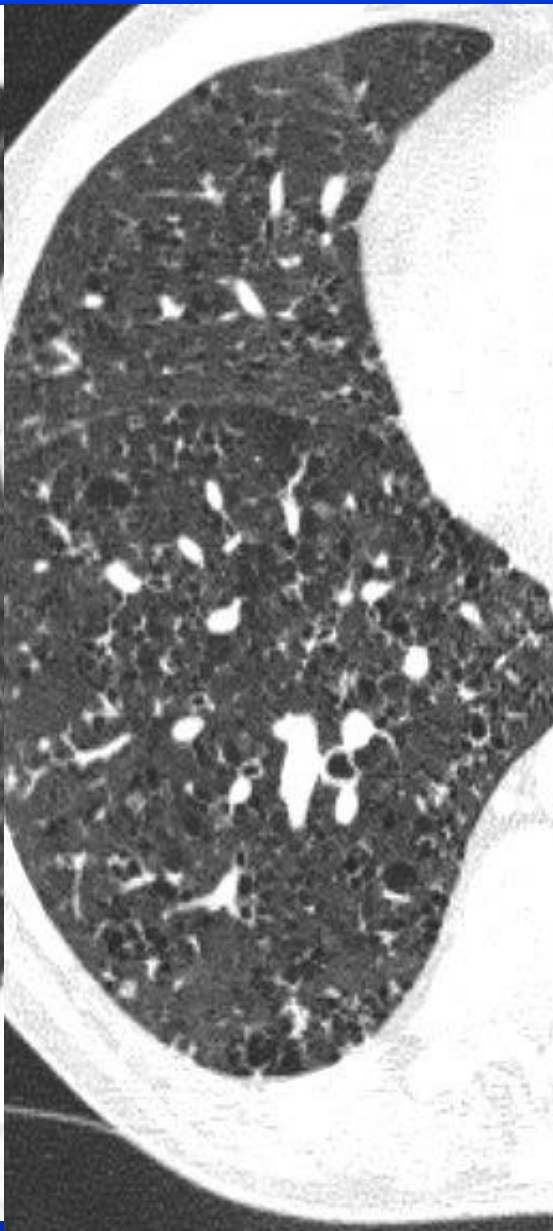
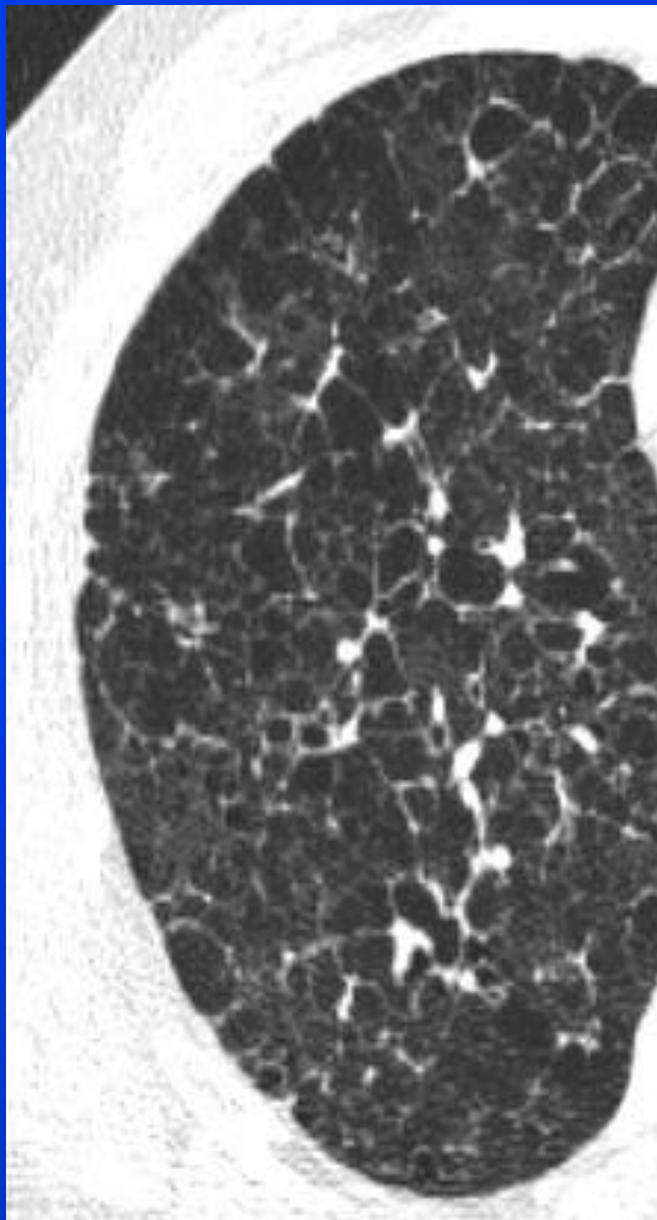


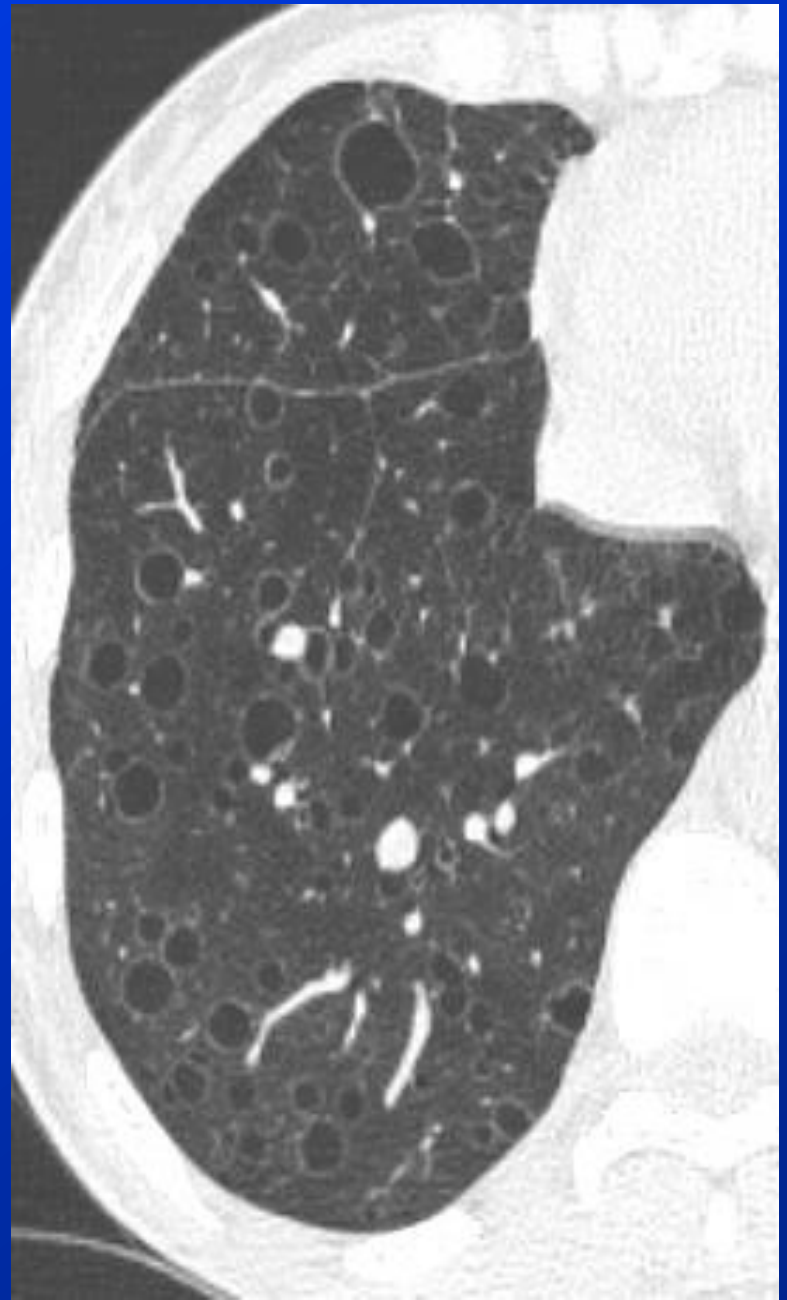
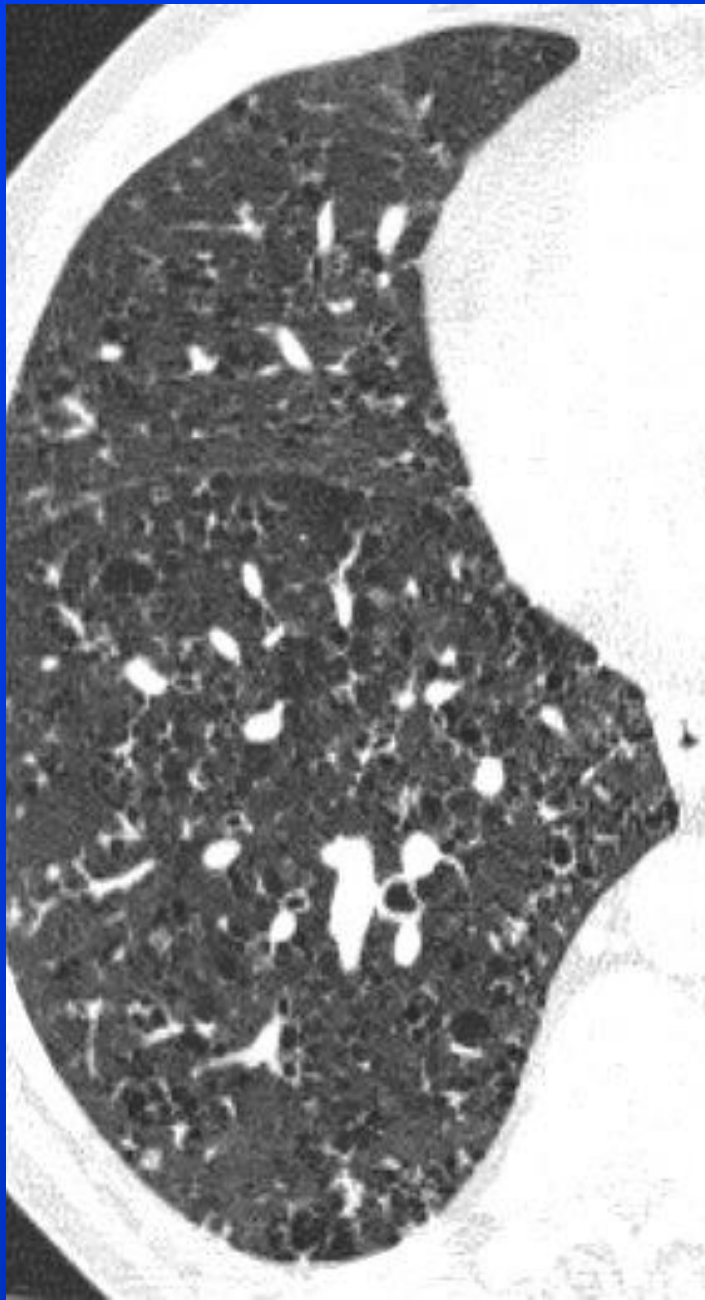


HLP VS LAM

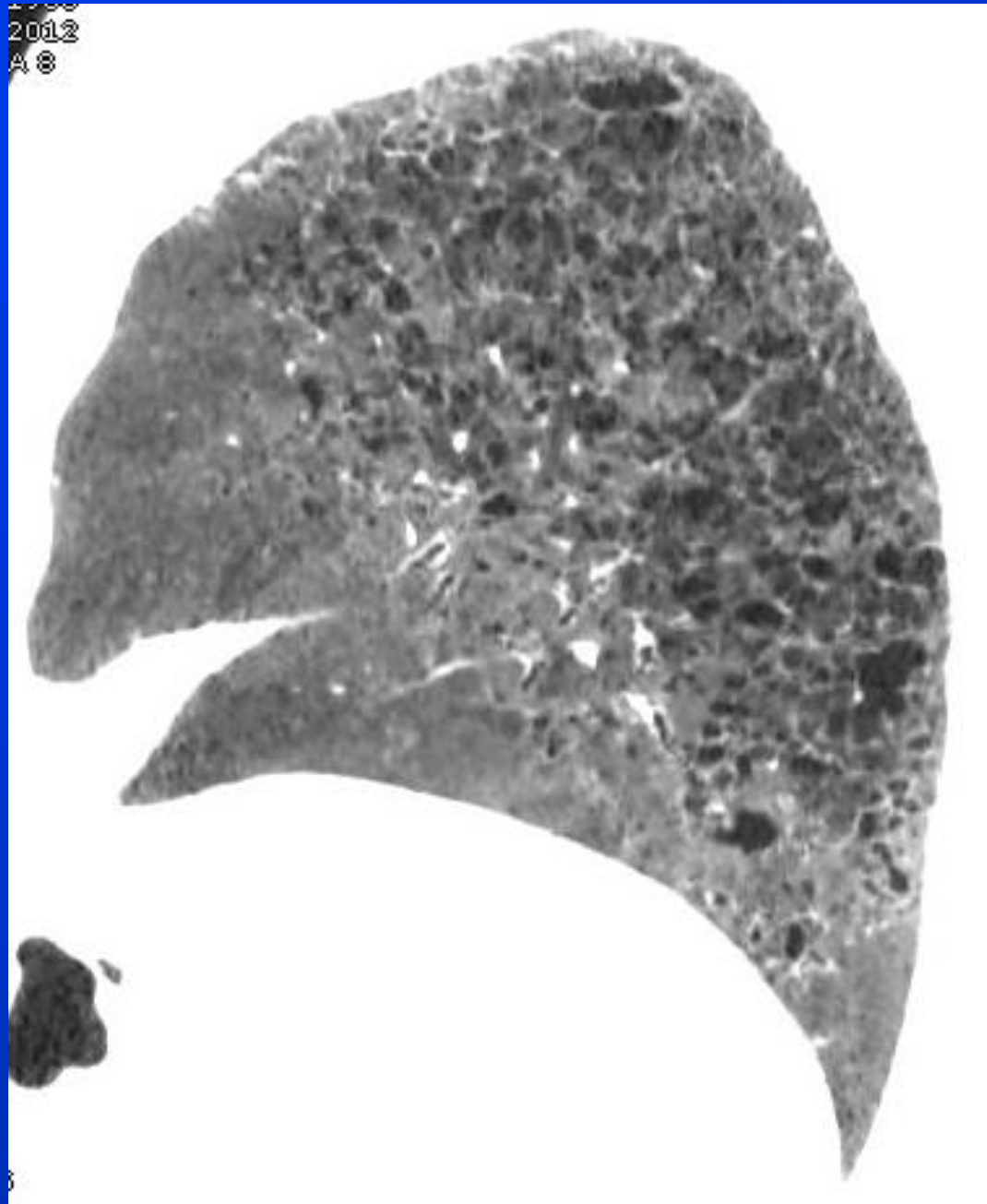
- 1 NODULE
- 1 KYSTES IRREGULIERS ,
«BIZARRES»
- 1 RESPECT L I, POINTE L M +
LINGULA



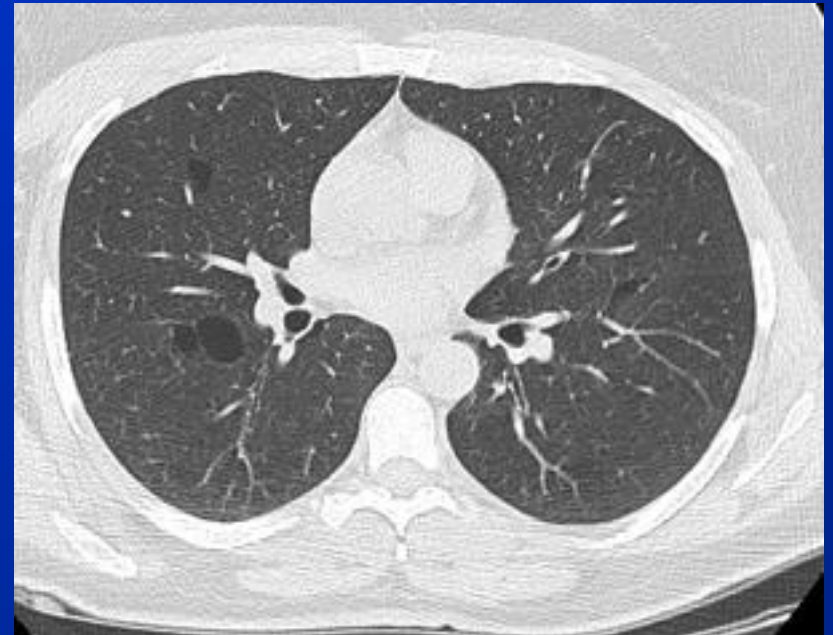
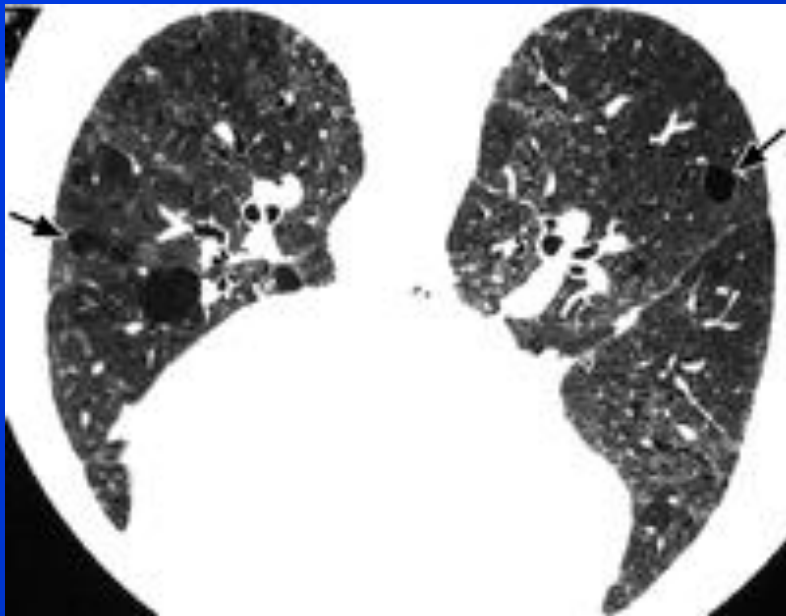


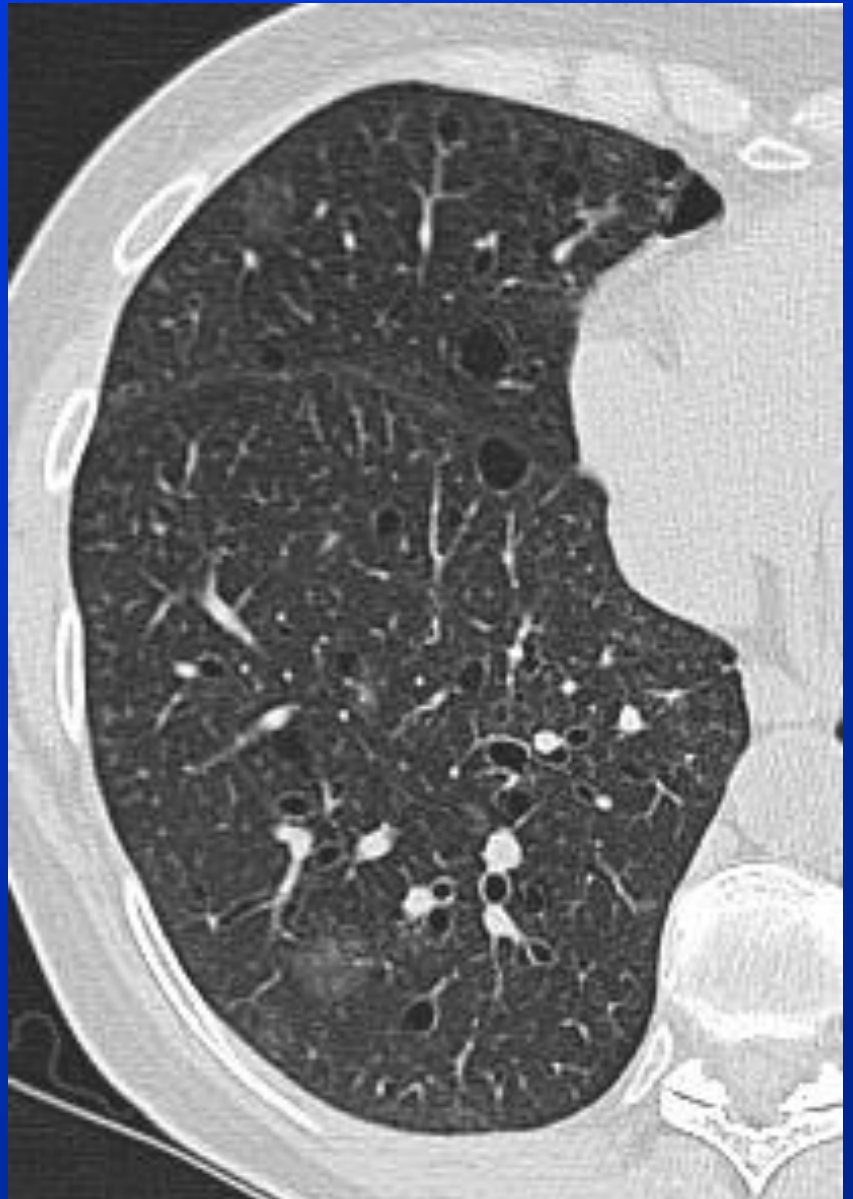
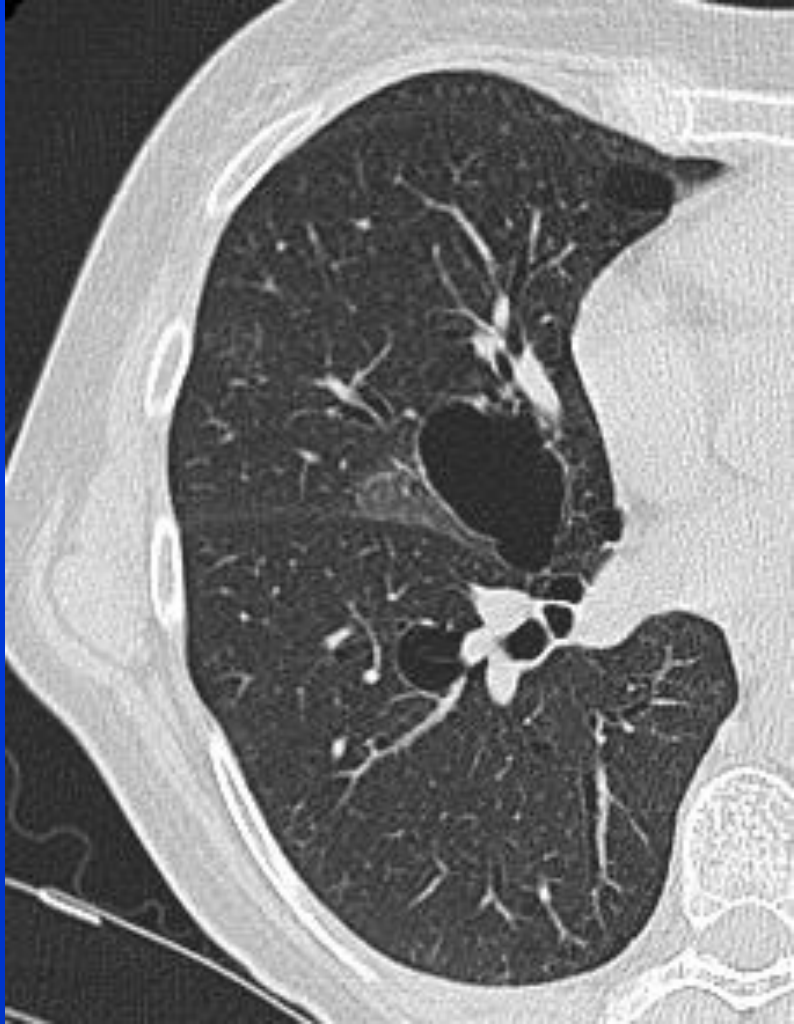


2012
A 8



Affections multikystiques + rares: LIP (SGS) - Birt-Hogg Dubé





LIP

Désordre lympho prolifératif (lymphome précoce)

Associations:

SGS +++

SIDA

+ rare: CBP, Thyroidite AI, LEAD, Castleman...

TDM:

Kystes à prédominance basale

Verre dépoli en phase aigue (cortico sensible)

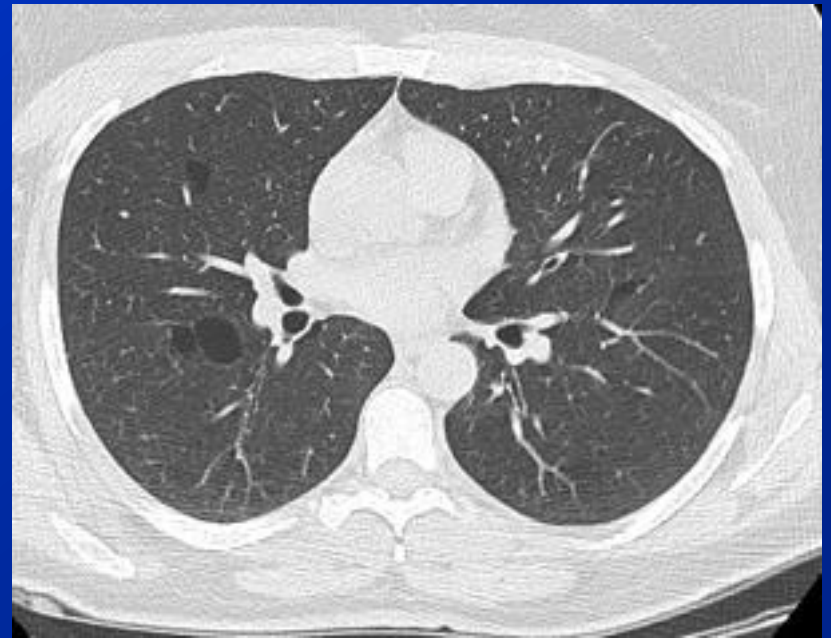
+ rare: nodule, épaissement périBV ou septal IL

Cantin L AJR janvier 2010

Seaman DM AJR Juin 2011

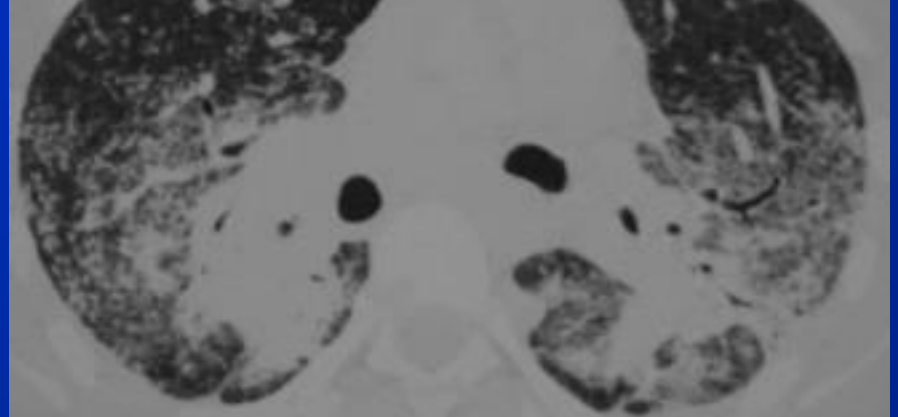
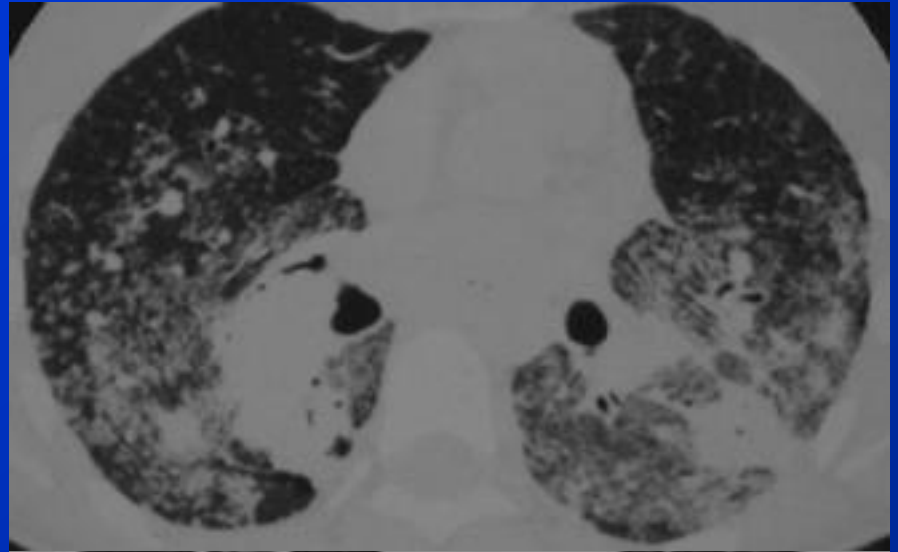
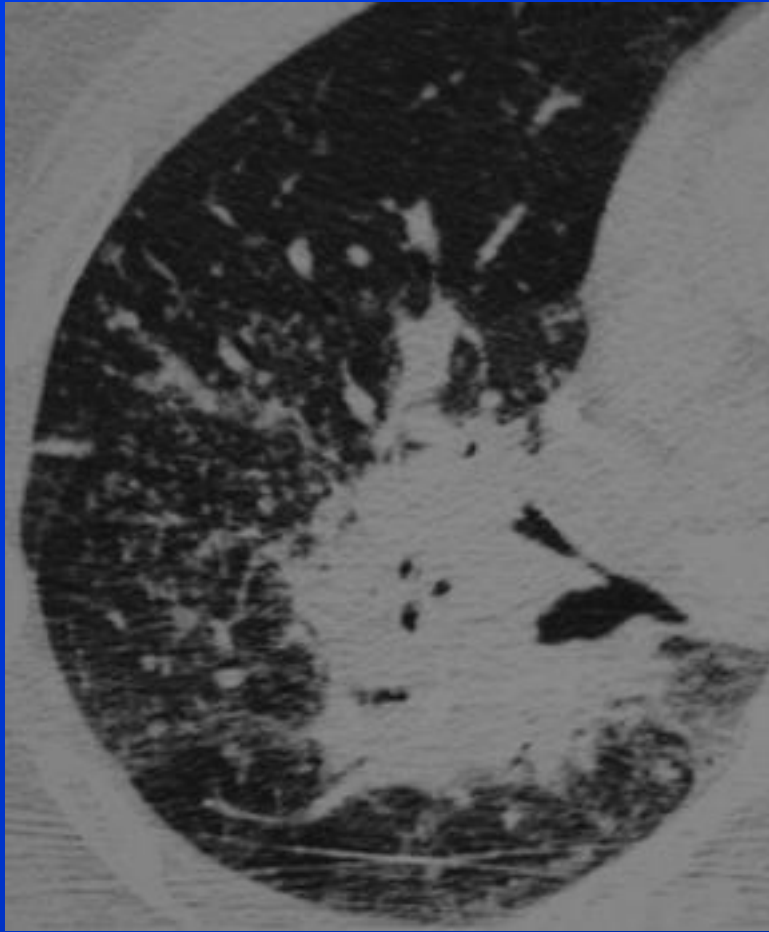
Birt-Hogg Dubé

- 1 Kystes ronds ou ovalaires
- 1 Topo: moyenne-bases, périBV
- 1 PNO: 25-40%
- 1 Le Rein +++
carcinome
oncocytome

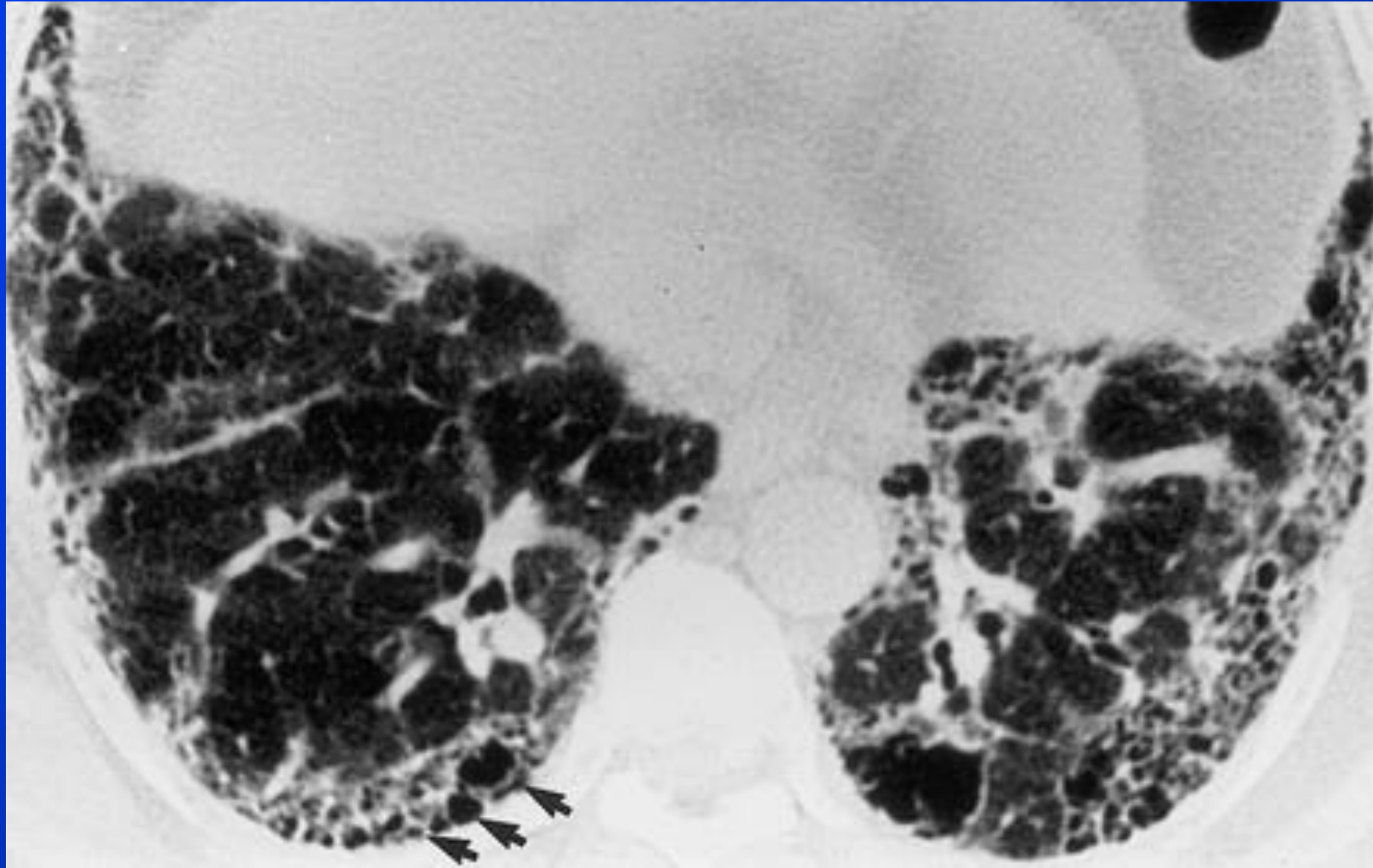


FIBROSE CENTRALE:

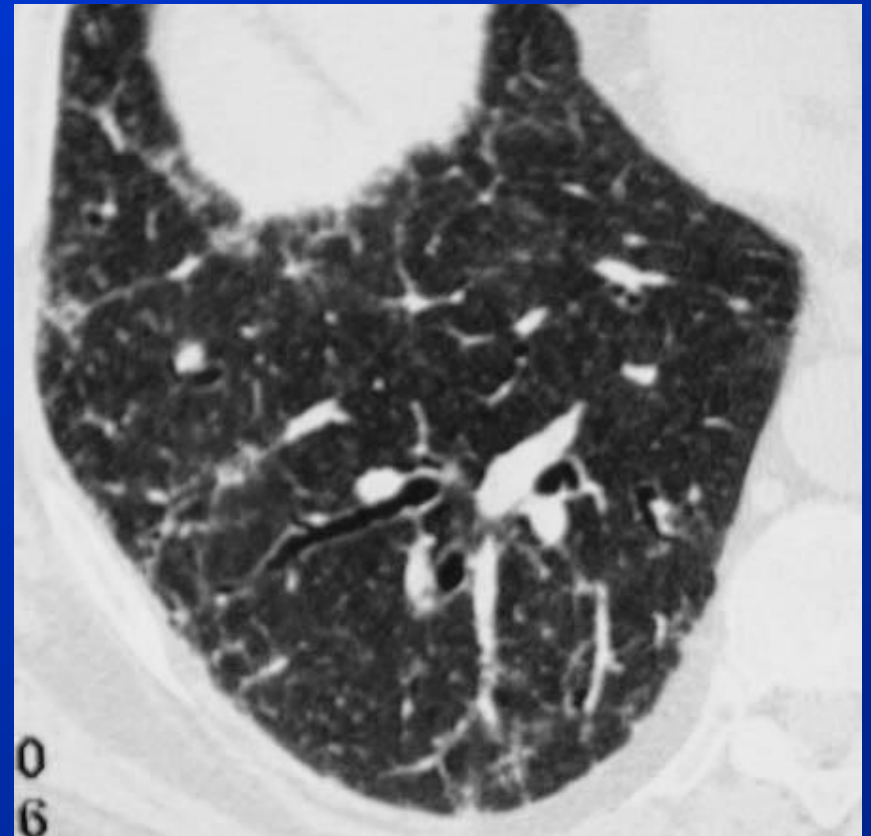
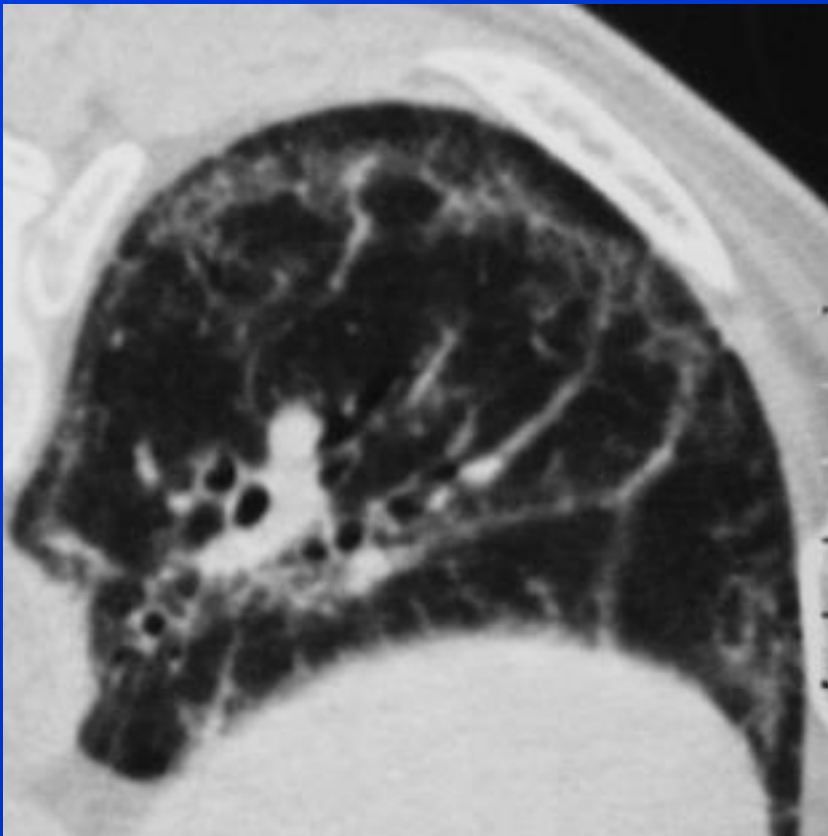
BBS , PHS ,Silicose.



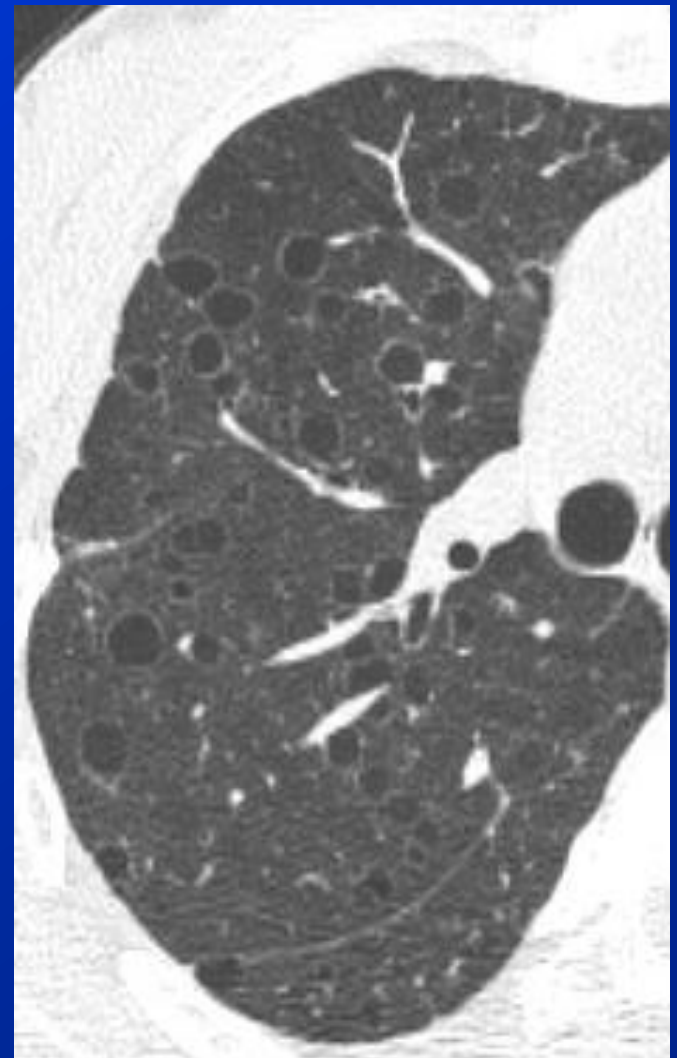
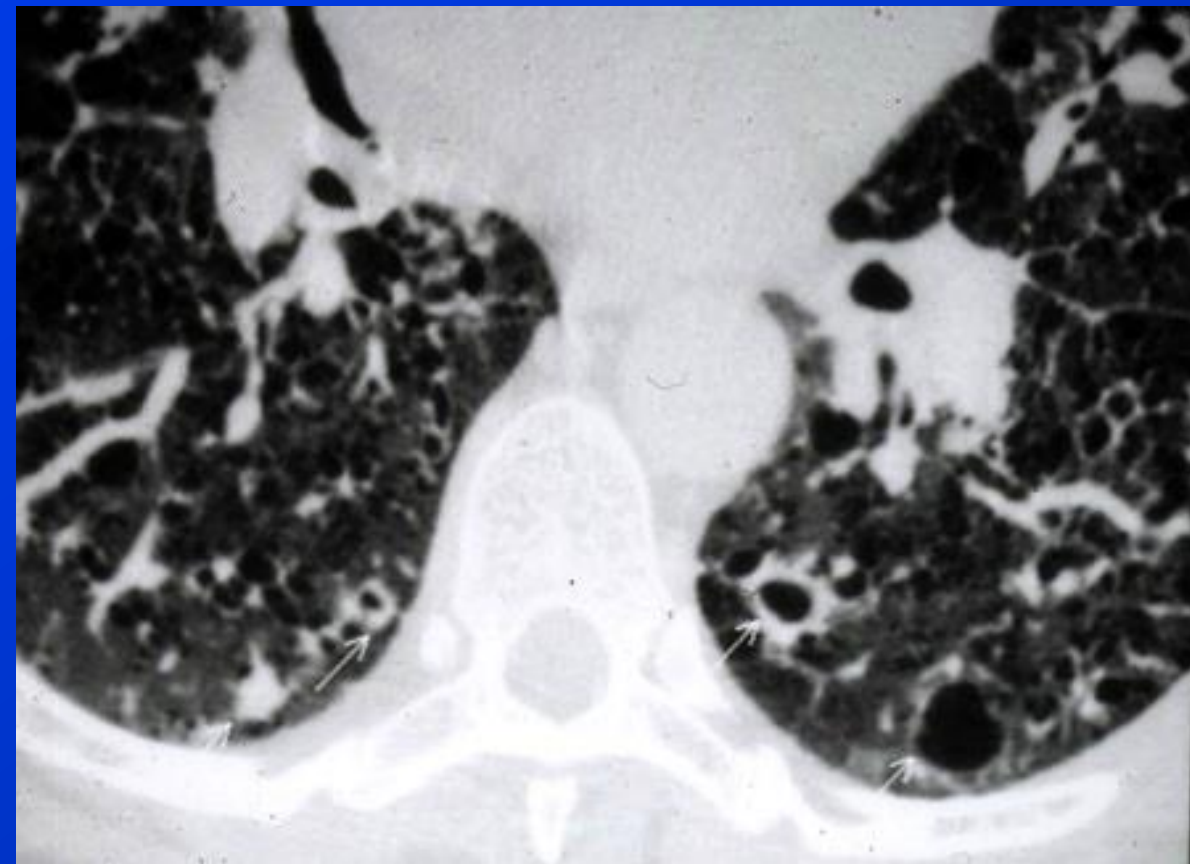
RAYON DE MIEL .



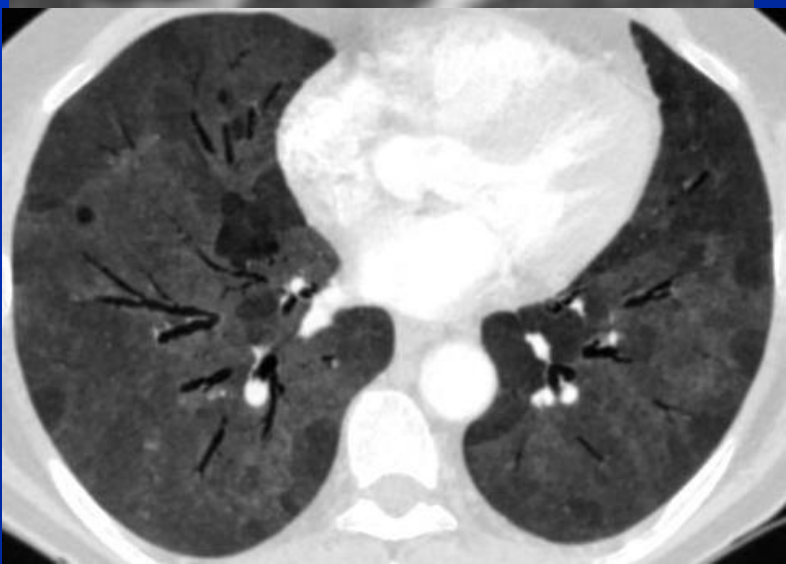
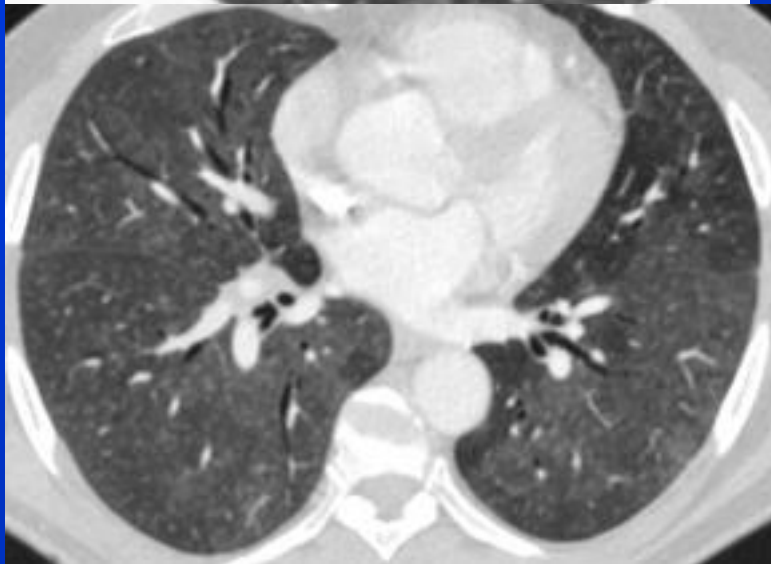
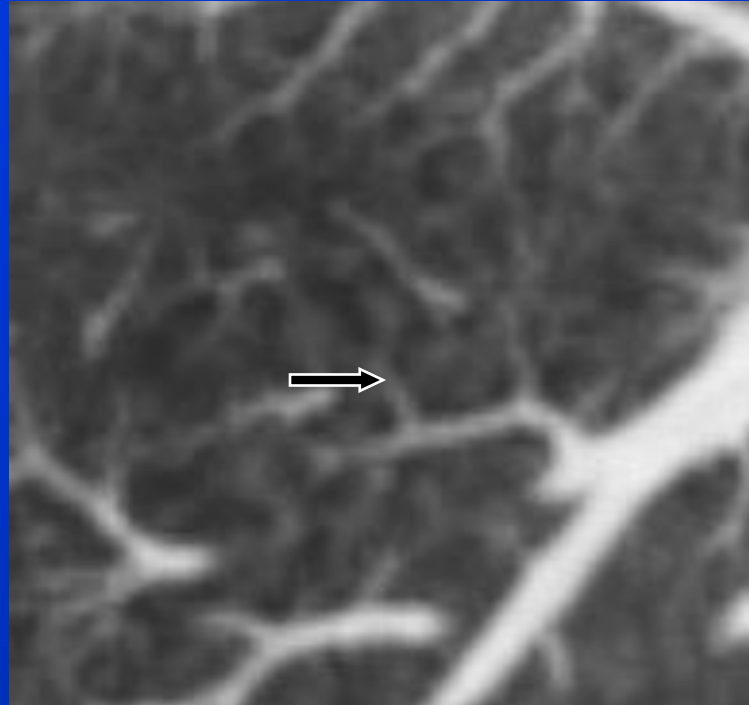
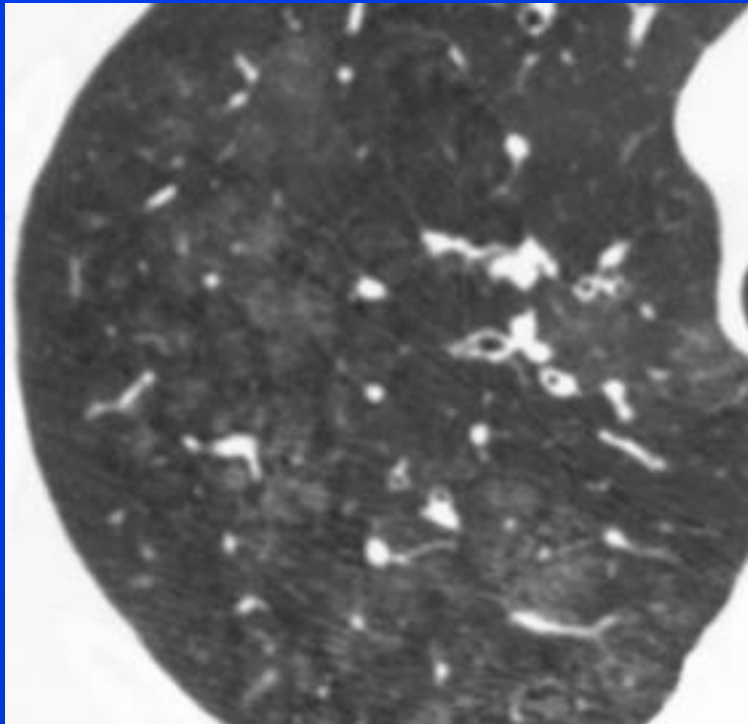
RETICULATIONS INTRA LOBULAIRES



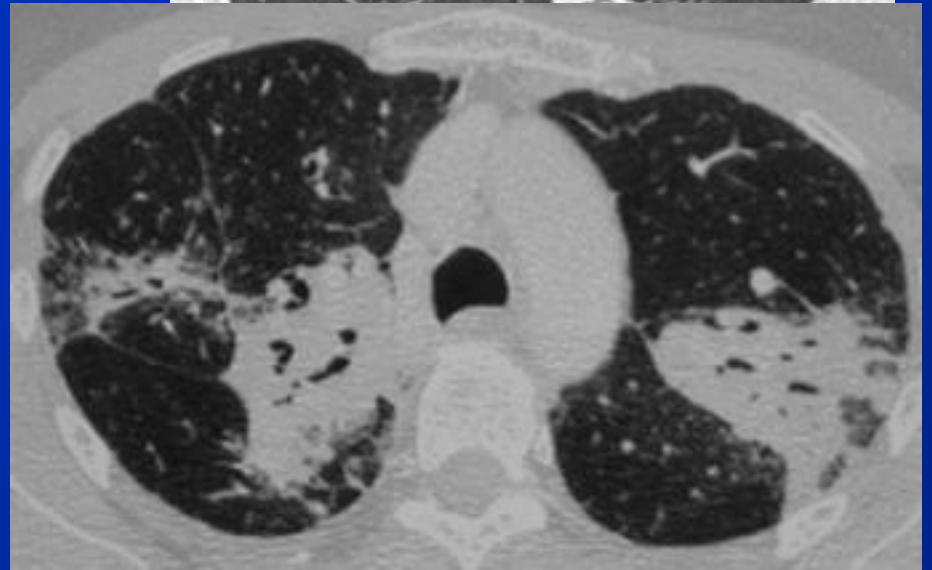
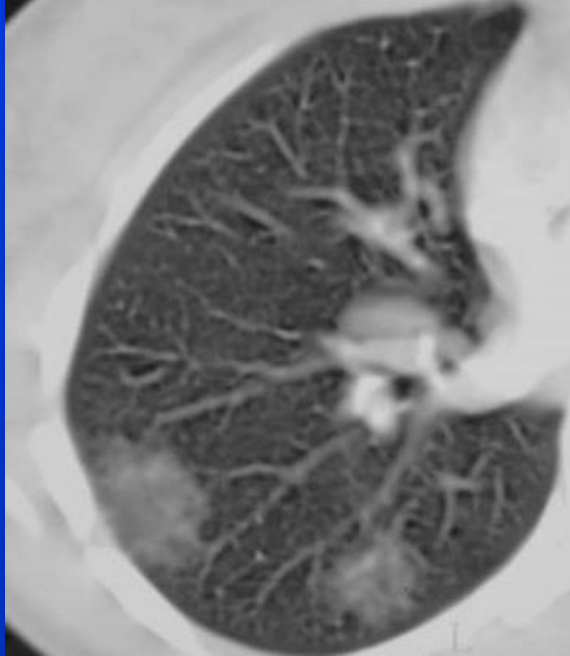
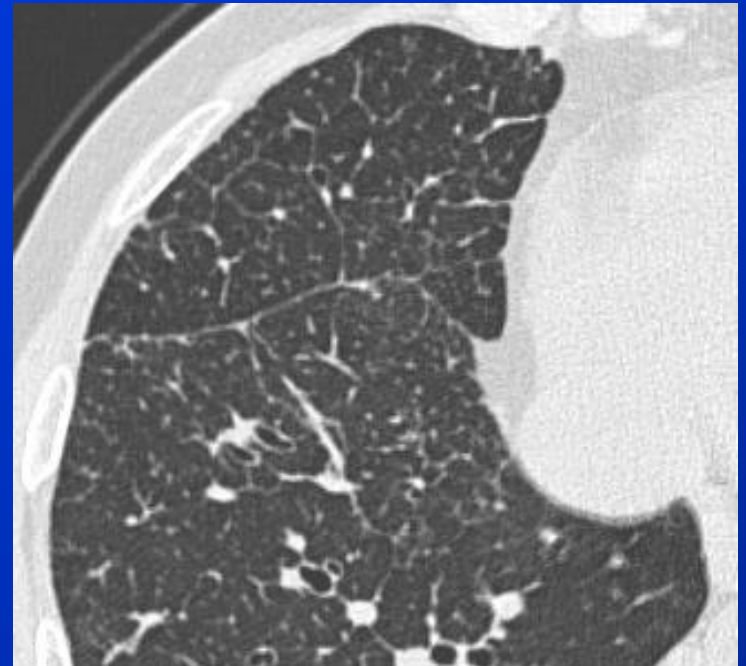
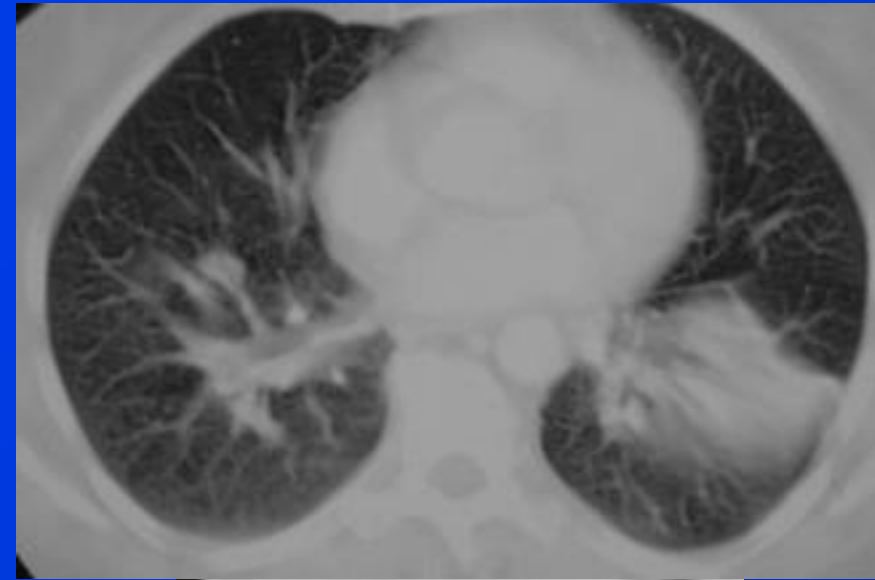
HLP-LMM



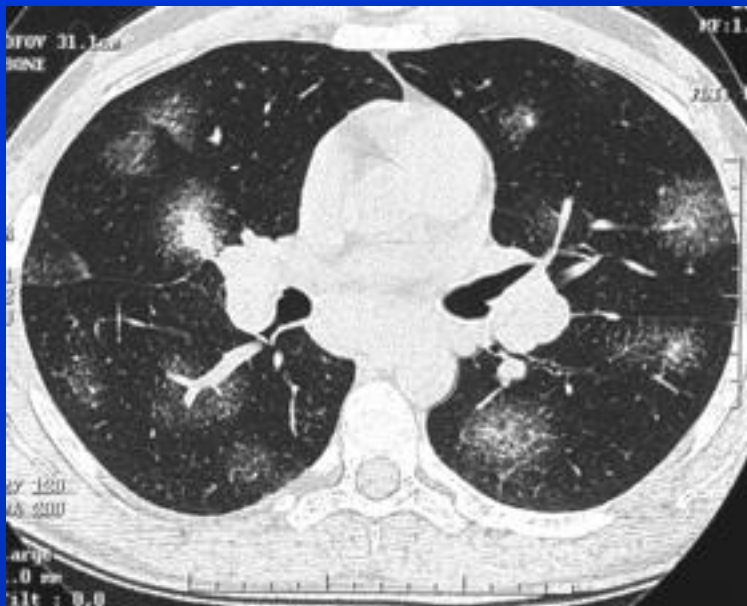
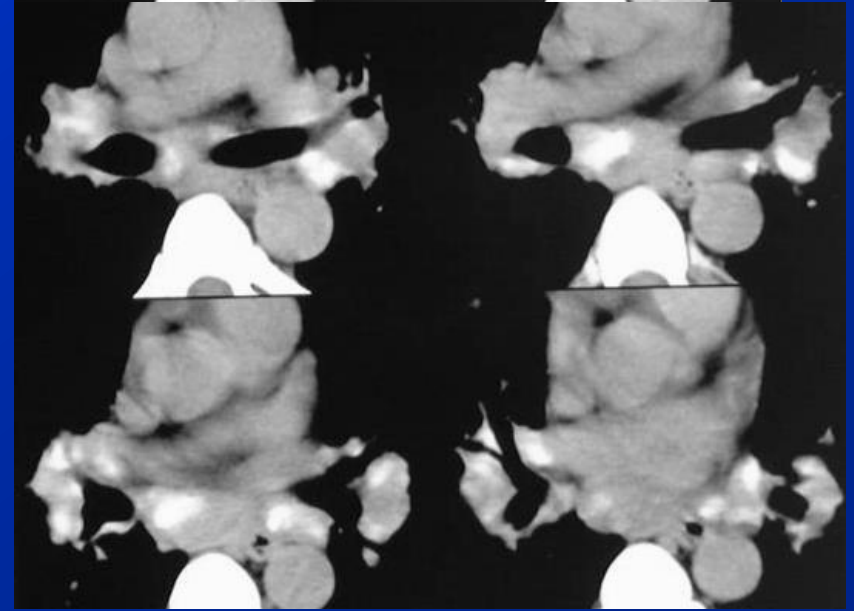
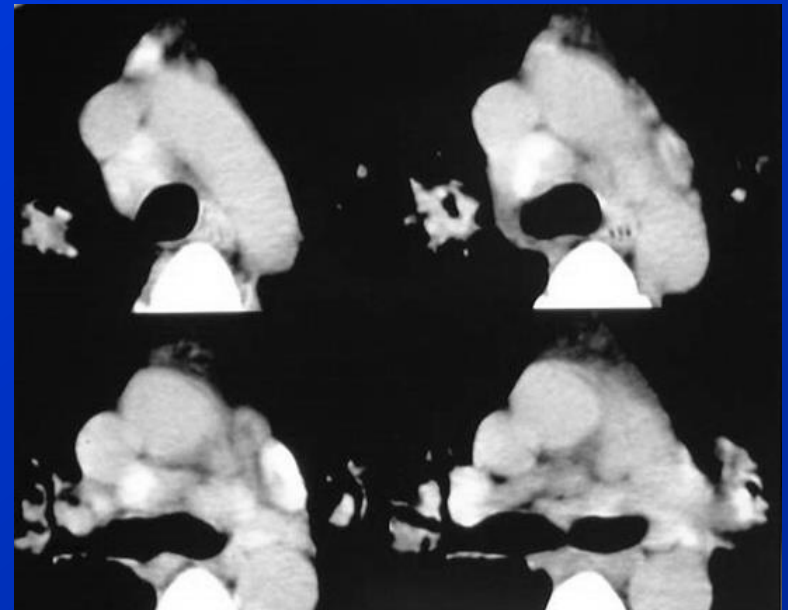
PHS



BBS: c'est parfois



BBS: c'est surtout



Lymphangite carcinomateuse

