

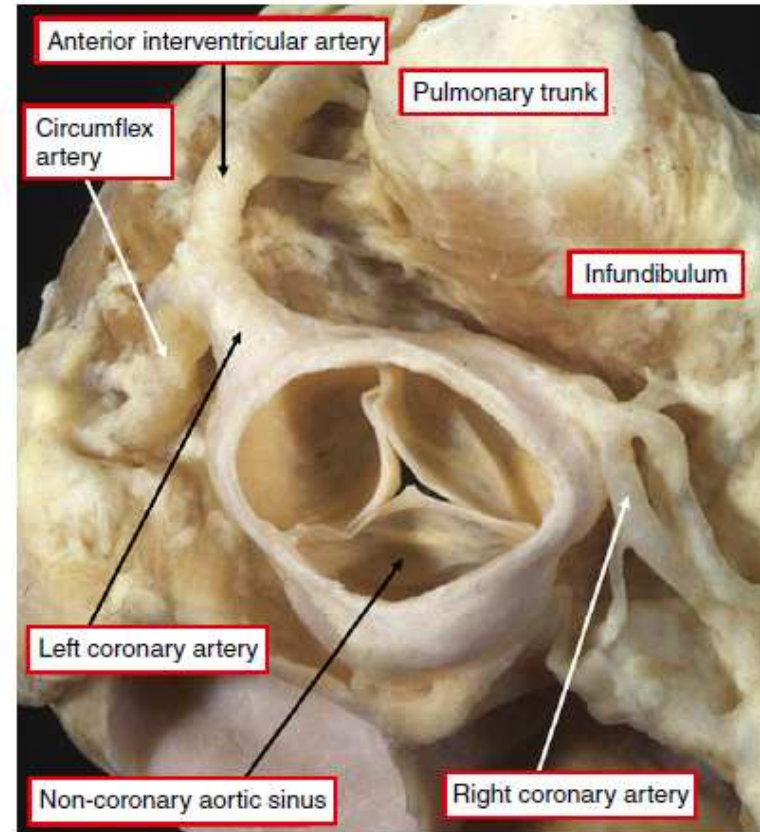
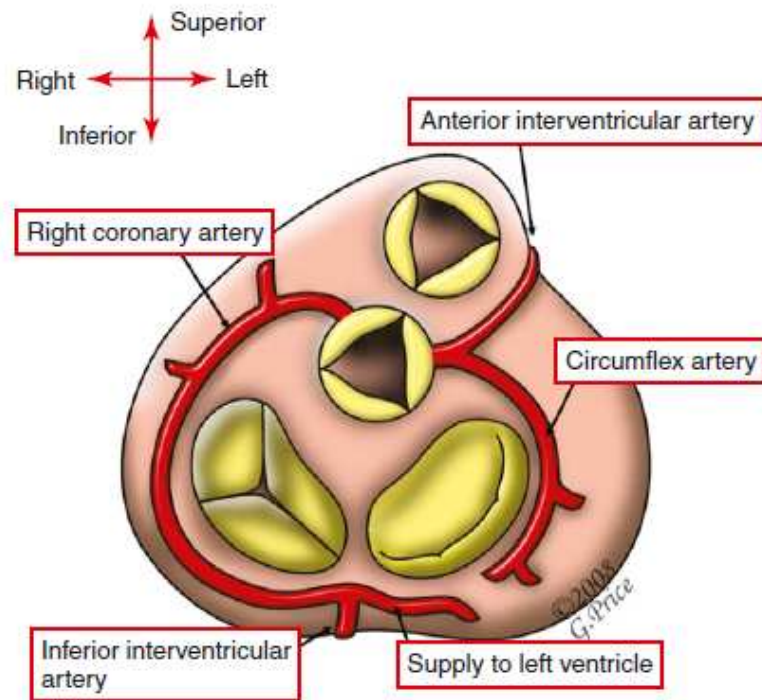


# Anomalies coronaires

Pierre-Emmanuel Séguéla

DIU RCC 2016

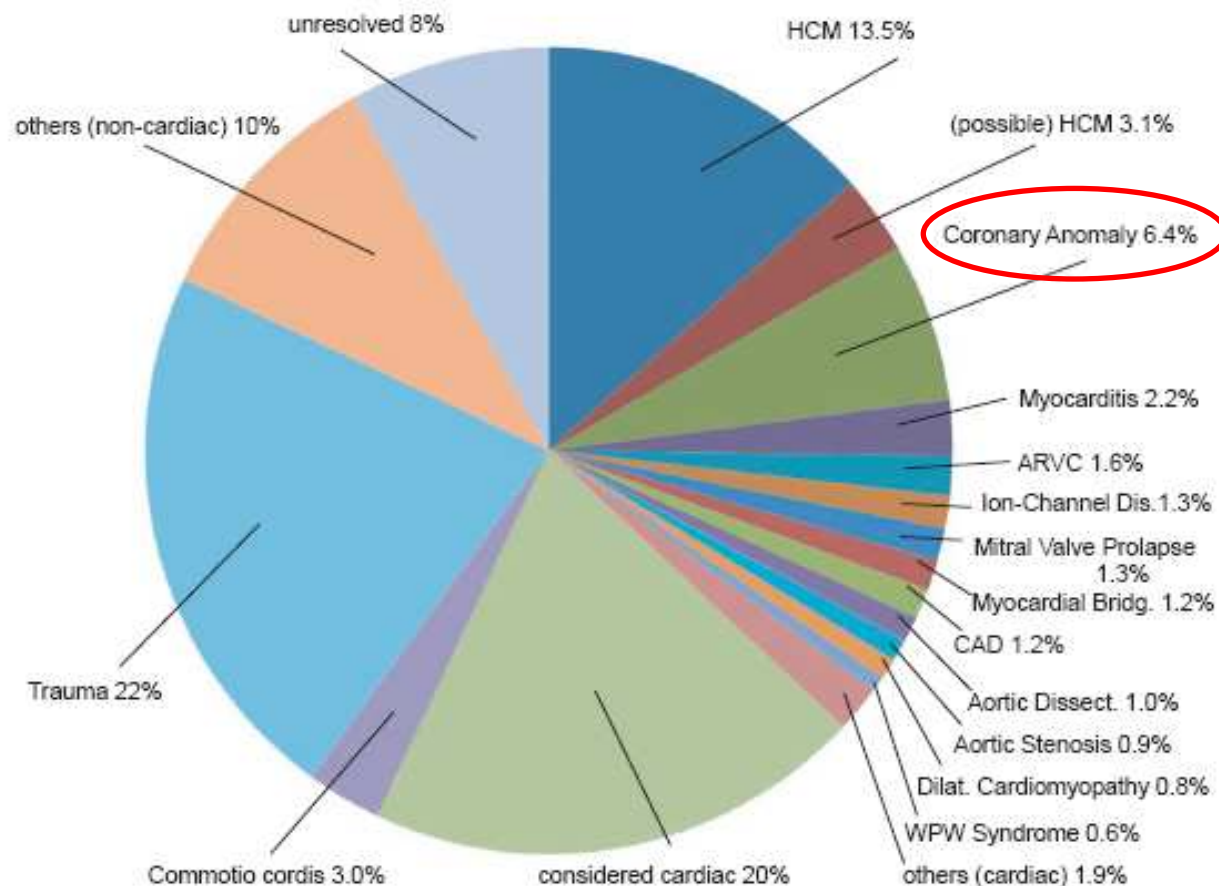
# ANATOMIE NORMALE



Incidence anomalies coronaires: 0.2 – 1.2%

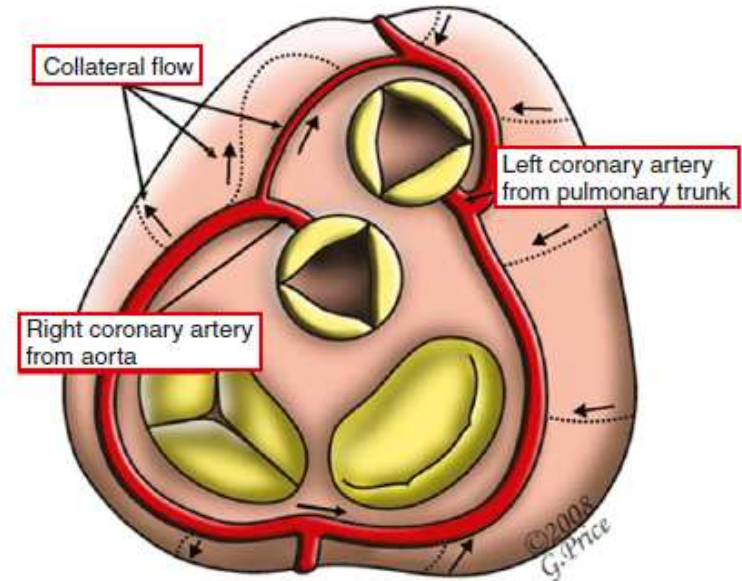
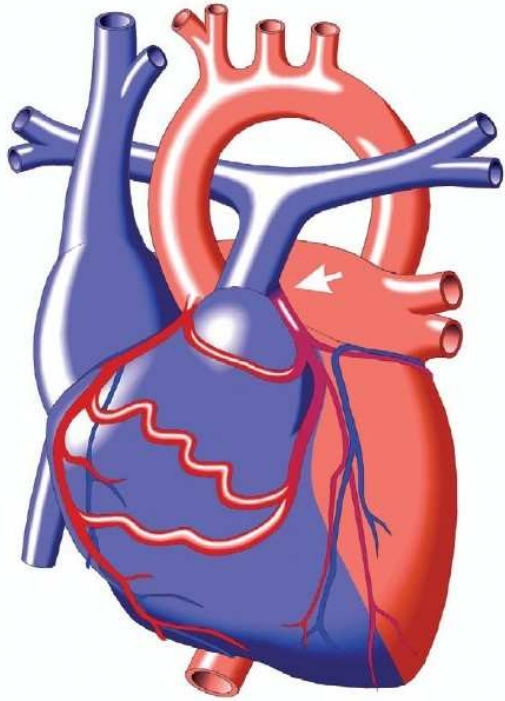
# MORT SUBITE JEUNES SPORTIFS

- 1-3/100 000 athlètes



# **ANOMALIES D'ORIGINE**

# ALCAPA

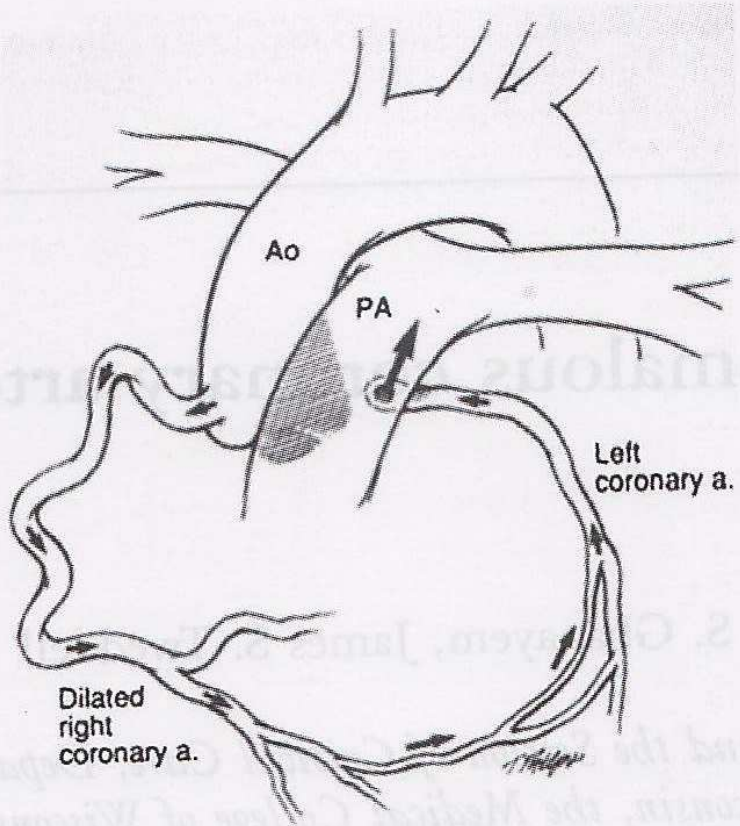


- 1/300 000 naissances vivantes
- Sans traitement: 90% mortalité dans la première année de vie

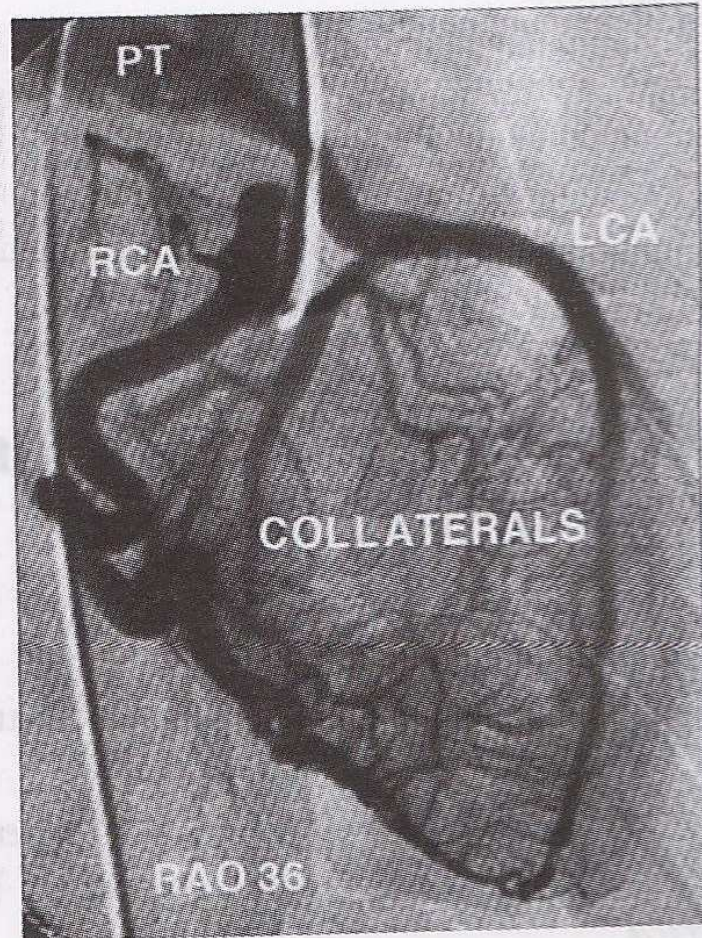
# PHYSIOPATHOLOGIE

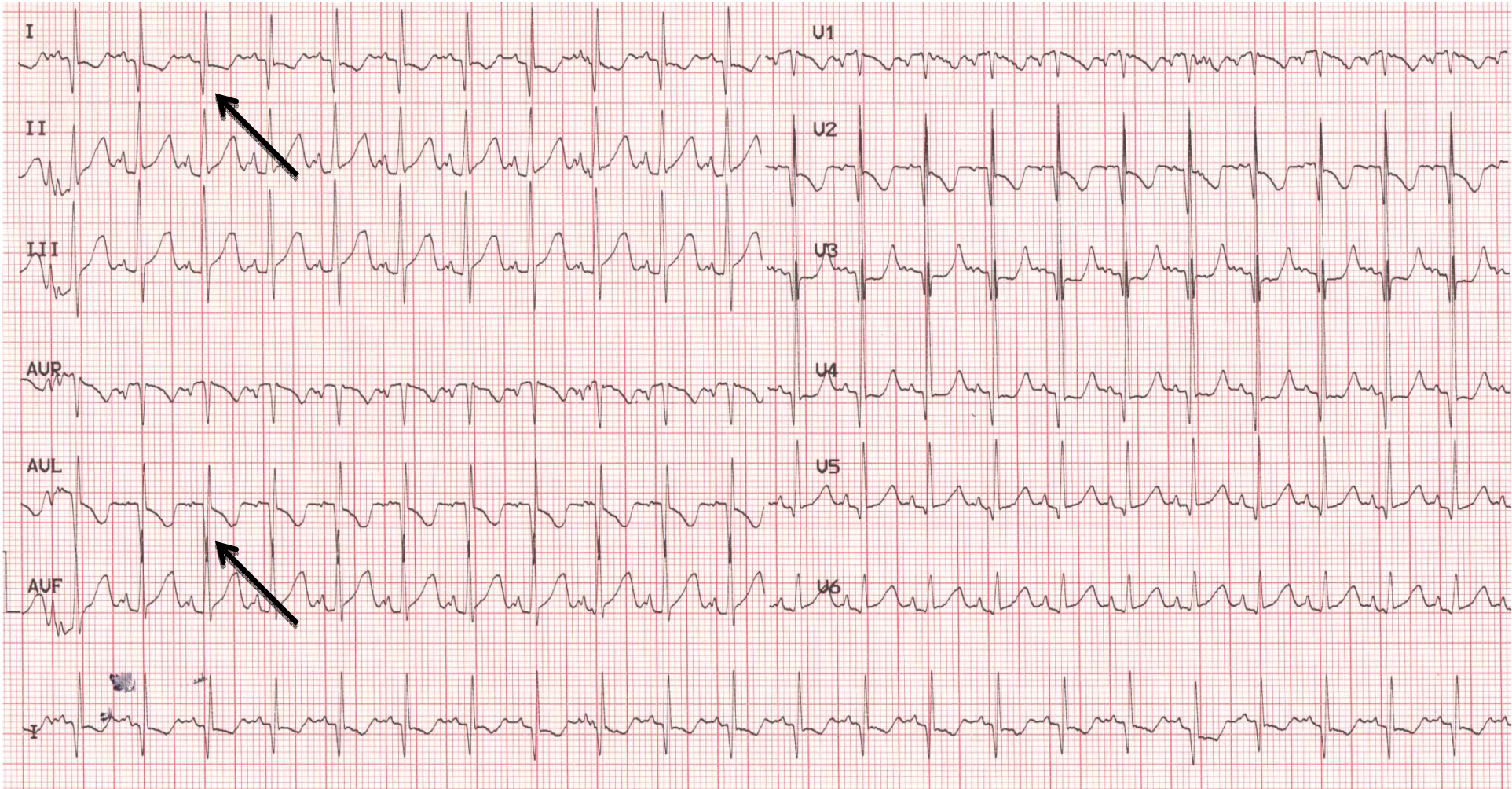
- Tant que les RVP sont élevées: asymptomatique
- A la chute des RVP: vol coronaire
  - ⇒ Ischémie myocardique
  - ⇒ IM +++
- Insuffisance cardiaque / choc cardiogénique

(a)

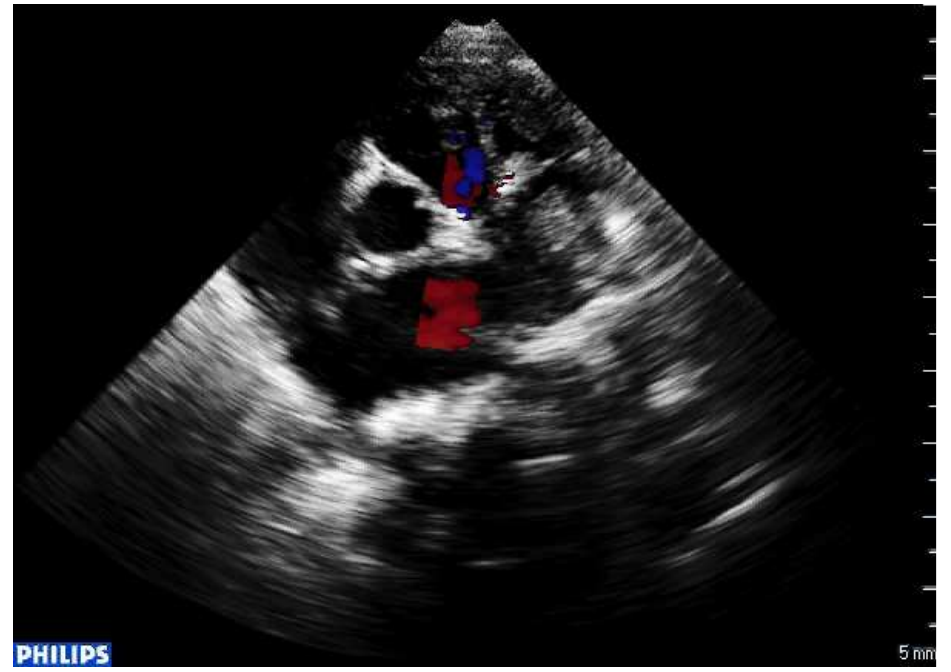
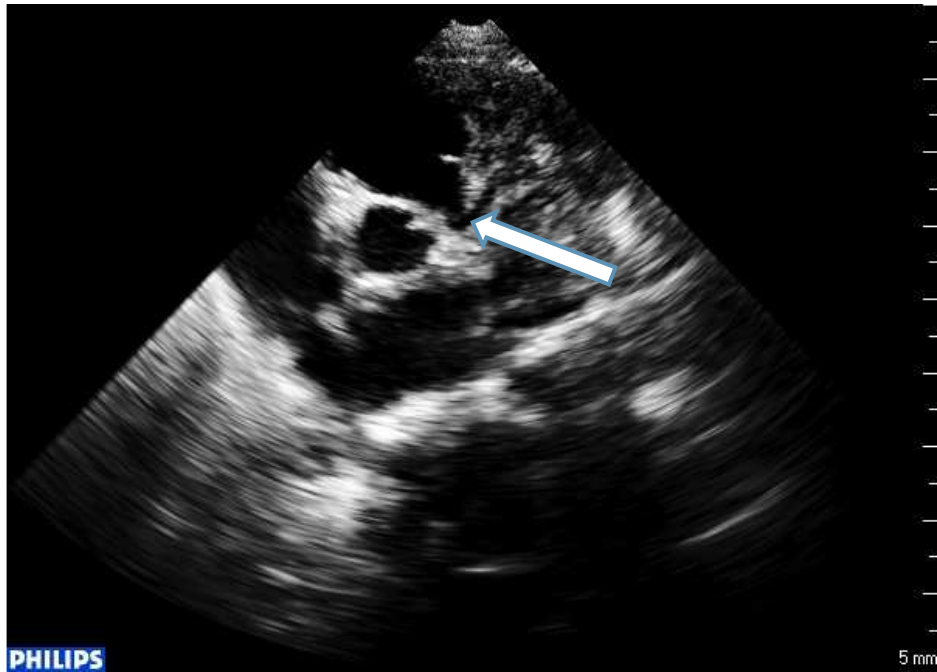
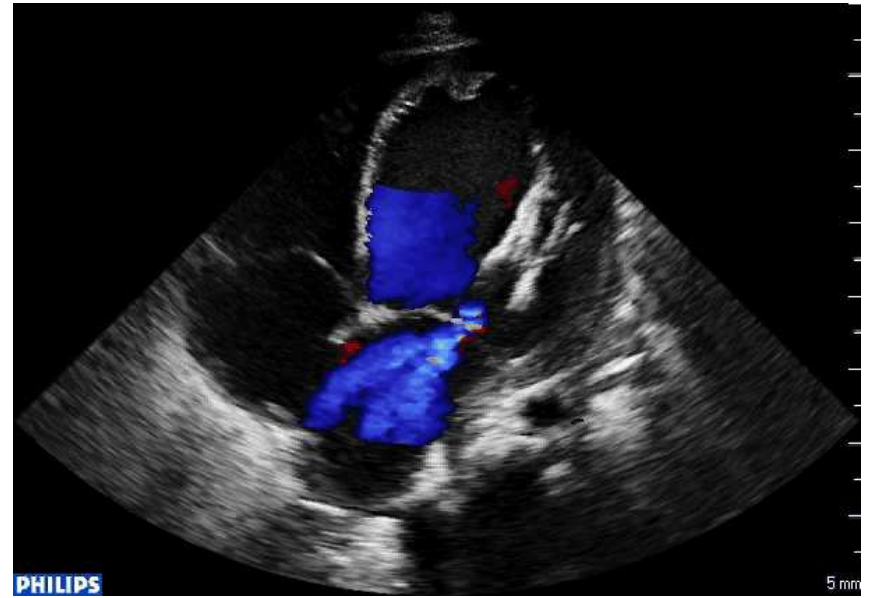


(b)



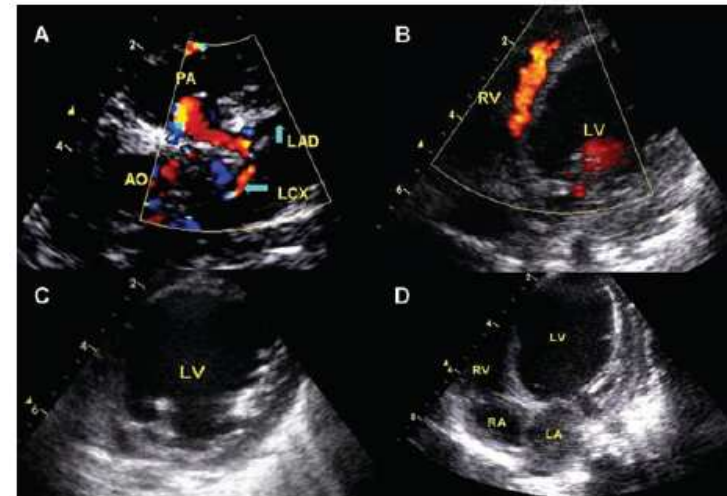






# ETT ALCAPA

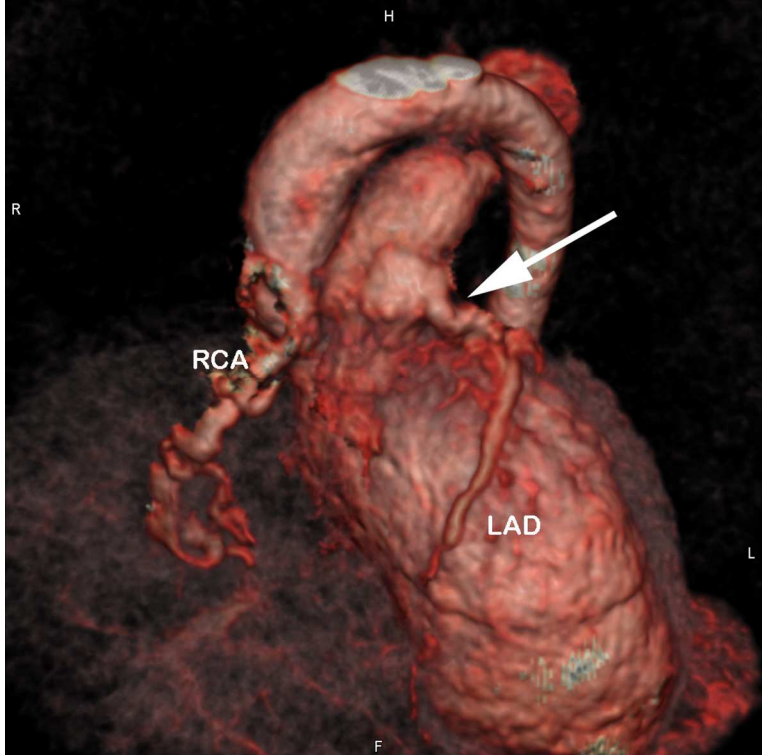
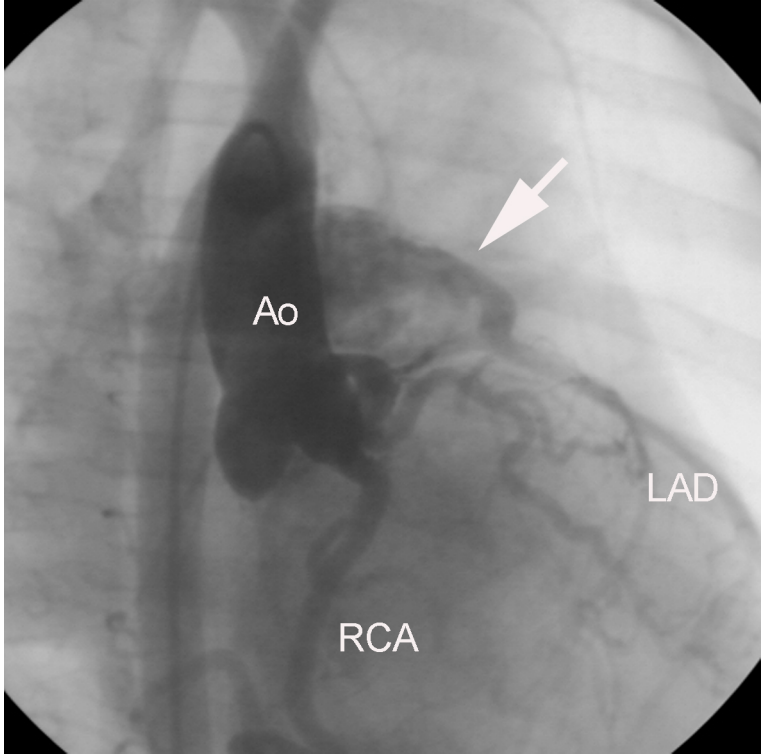
- Anomalie de la cinétique VG
- IM
- Coronaire ne naît pas de l'aorte
- Flux couleur inversé dans les Branches septales



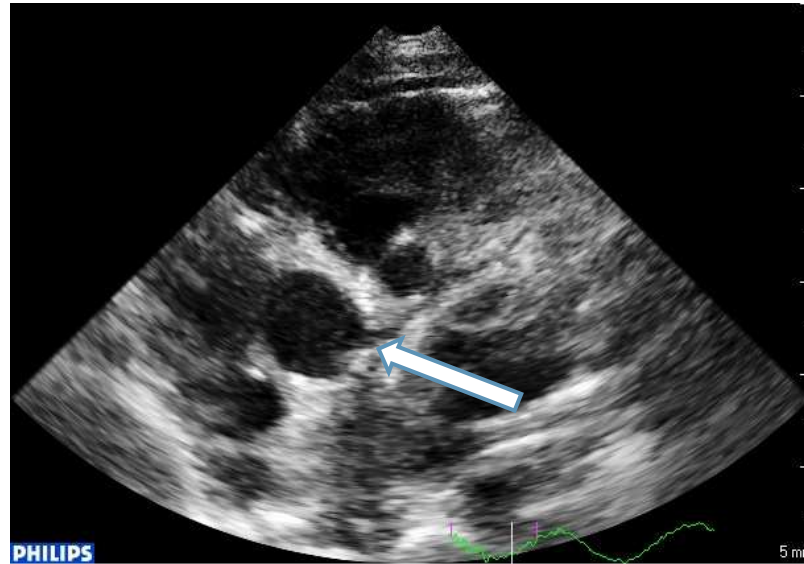
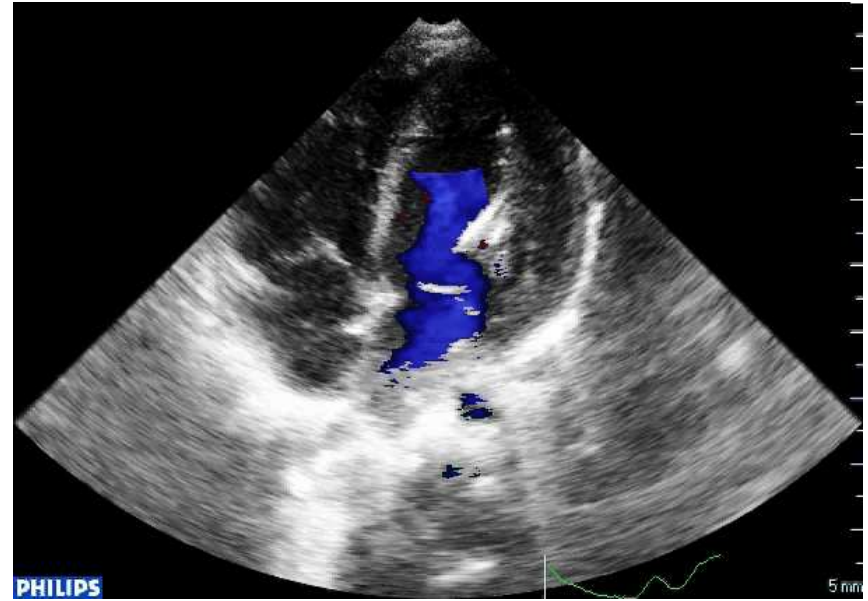
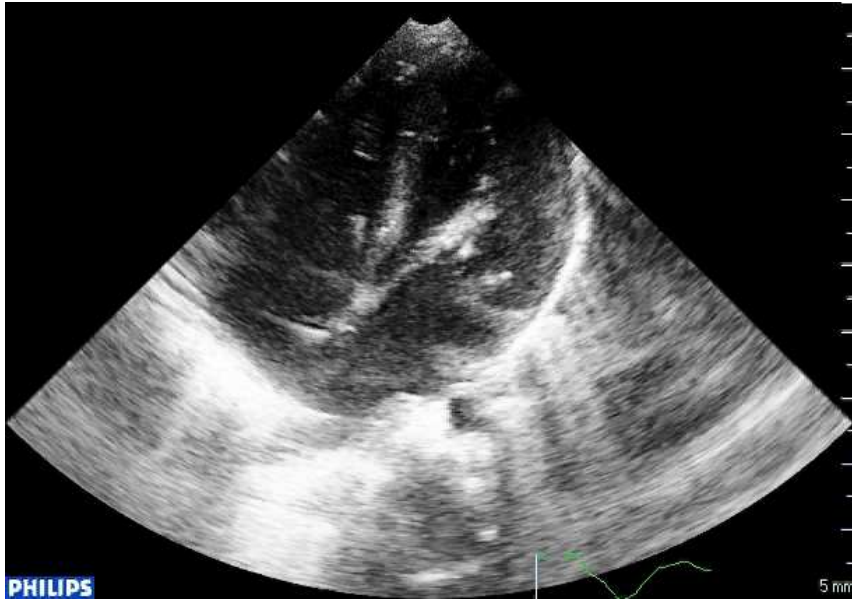
**TABLE I**

The Clinical Characteristics and Echocardiographic Features of Two Types

Patients	Infant Type 2 cases	Older Type 6 cases
Clinic manifestation	Seriously symptomatic in the half year of life and referred for heart failure	Asymptomatic in early life after birth, palpitation, chest distress or asymptomatic in adolescence or adulthood
Electrocardiogram	Myocardial ischemic changes	LV hypertrophy/ high pressure or ischemic changes
Echocardiographic features		
RCA diameter	Normal or mildly dilated ( $RCA/AO \geq 0.21$ )	Obviously dilated
Septal collaterals	Insufficient	Abundant
Fibrotic changes of papillary muscles	Prominent	No
Abnormal myocardial motion	Yes, especially the anterior and lateral wall,	No
Endocardium	Secondary fibroelastosis	Normal
LV size	Severely dilated	Normal or mildly dilated
Cardiac function	Dysfunction	Normal

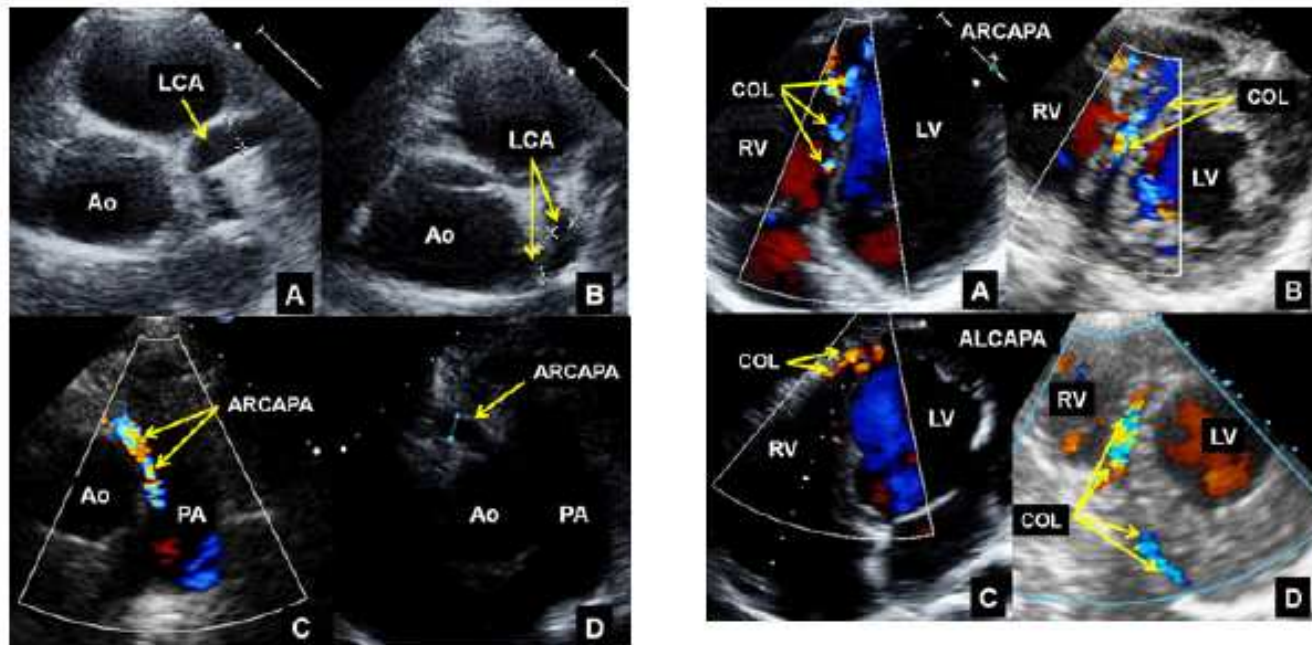


# Post-op



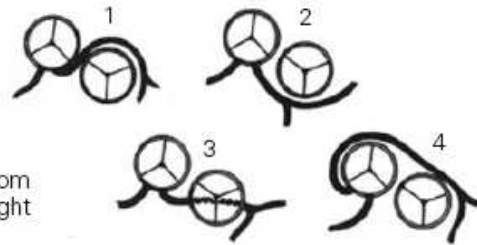
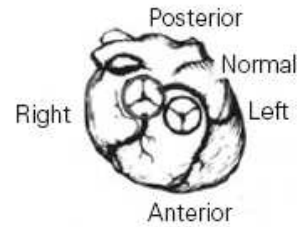
# ARCAPA

- Beaucoup plus rare
- Associée à d'autres CC (2/3 cas):  
T4F, VVDI, fenêtre aorto-pulmonaire



# NAISSANCE DU SINUS OPPOSE

## I. Ectopic origin from aortic sinus

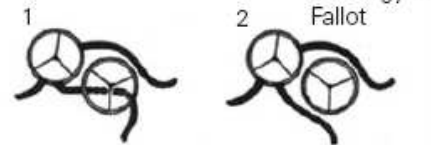


\* A Origin of left main trunk from right sinus of Valsalva or right coronary artery

B Origin of left anterior descending and circumflex from the right coronary sinus



C Origin of left anterior descending from right sinus of Valsalva or right coronary artery



D Origin of left circumflex coronary from right sinus of Valsalva or right coronary artery

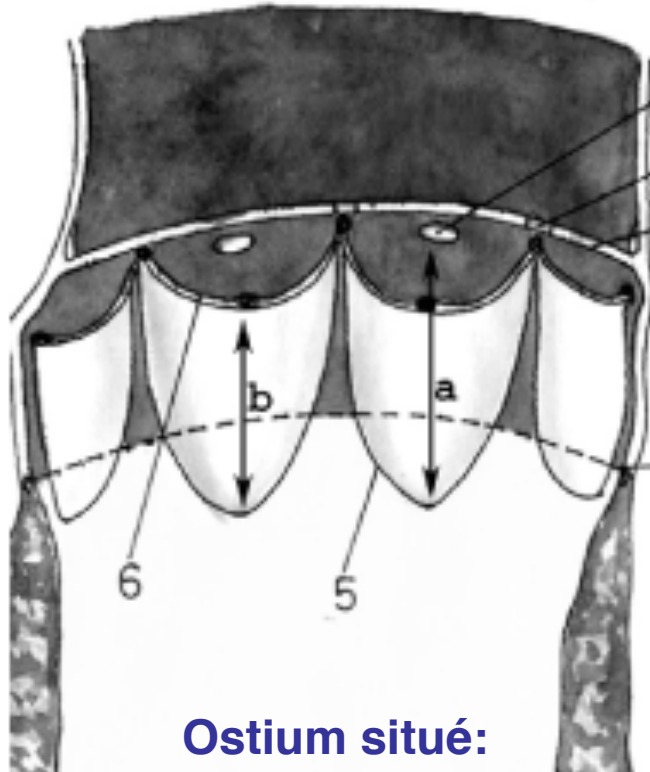


\* E Origin of right coronary artery from left sinus of Valsalva



# ANOMALIE D'IMPLANTATION

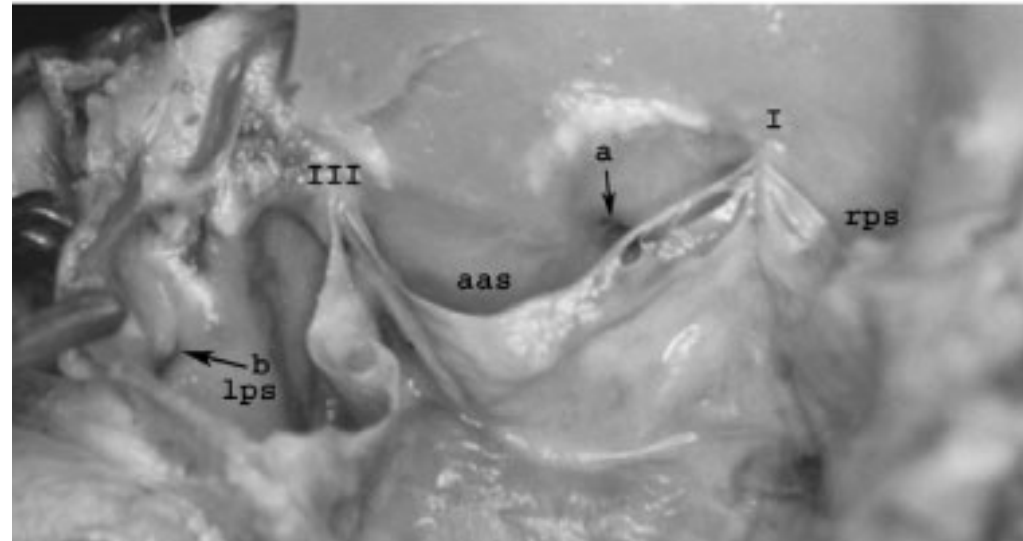
Normalement



Ostium situé:

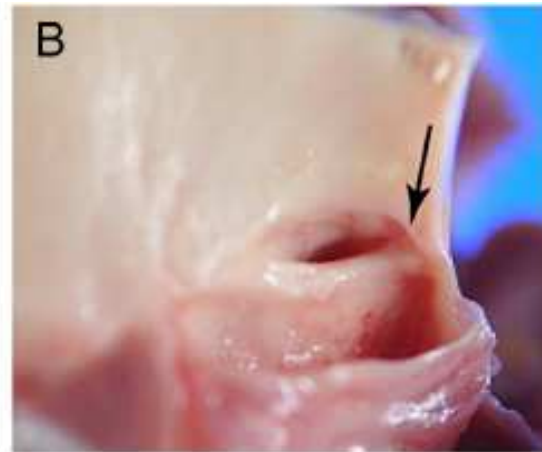
- sous la jonction sino-tubulaire
- au-dessus du plan du bord libre de la valve aortique

Ostium en fente (slit-like orifice)



- au-dessus de la jonction sino-tubulaire
- Orifice en fente (étiré)

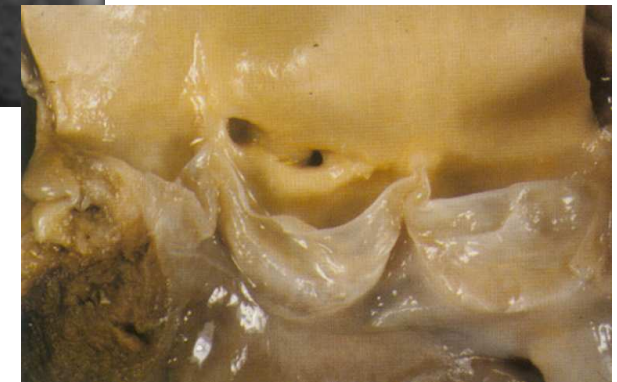
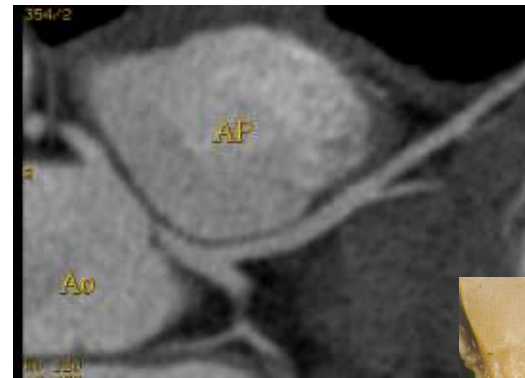
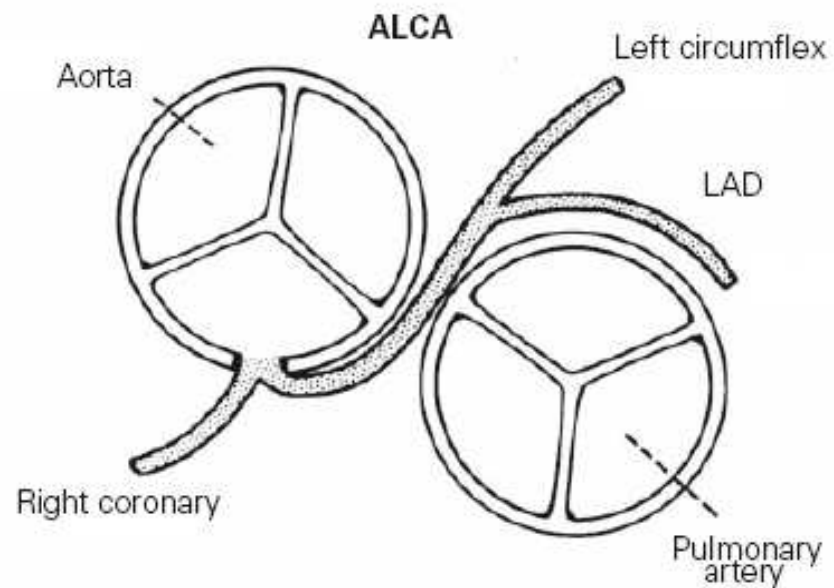
# Ostium en fente





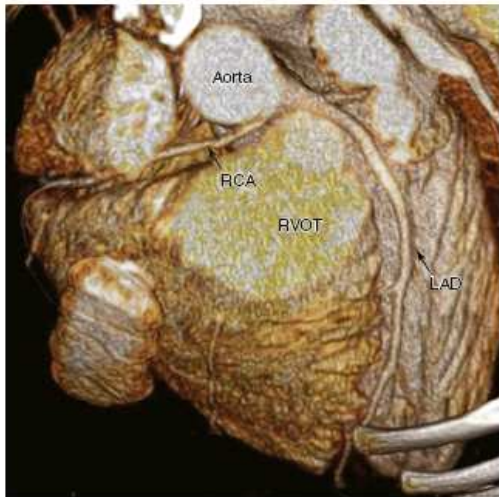
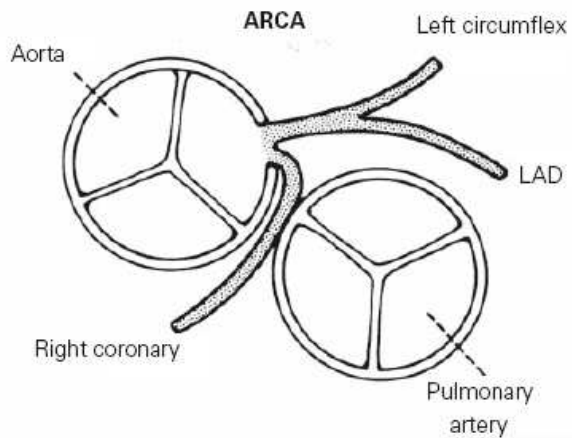
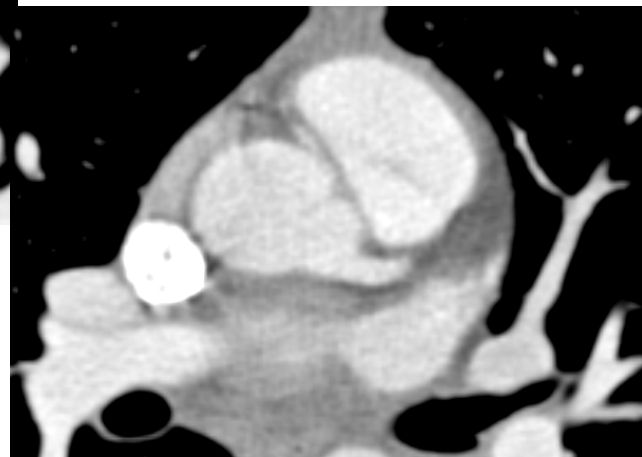
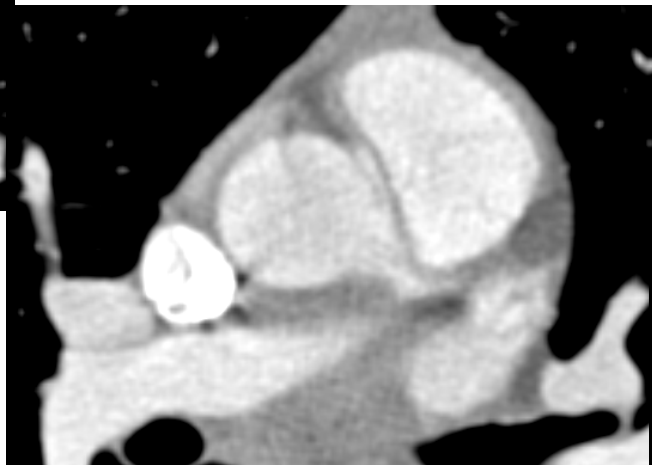
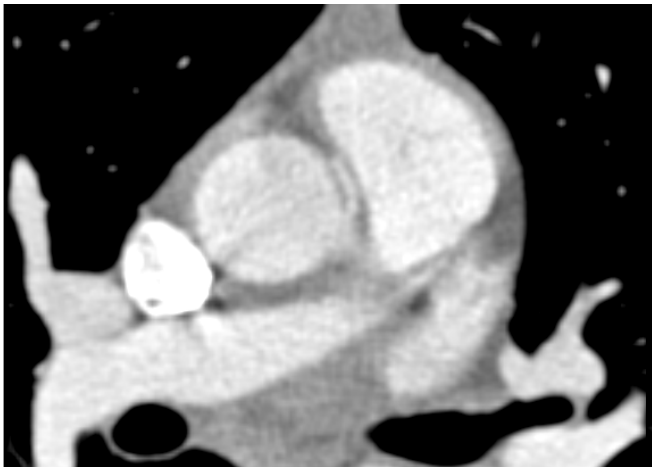
# **ANOMALIES DE TRAJET**

# CORONAIRE GAUCHE DU SINUS DROIT

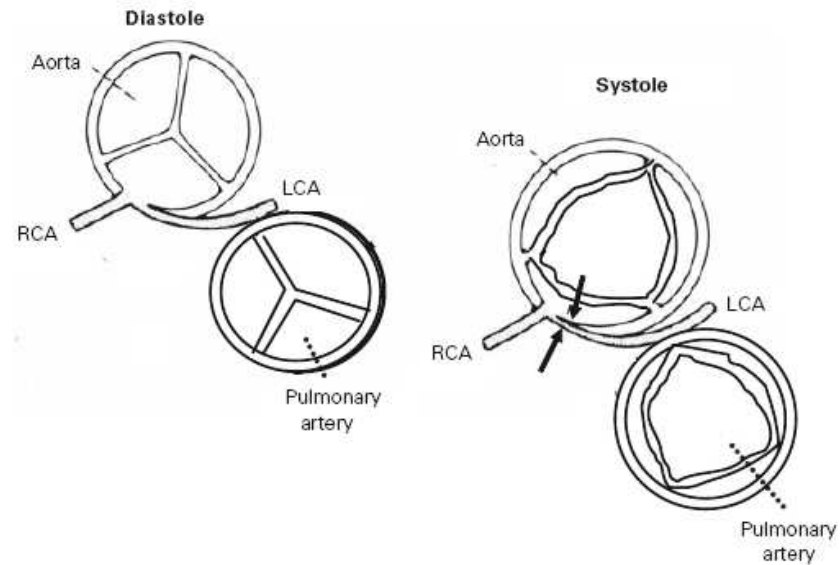
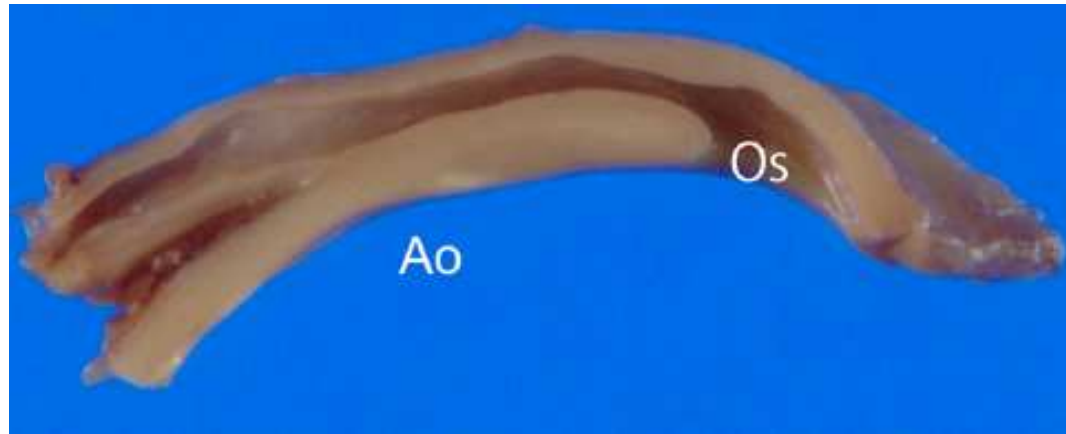


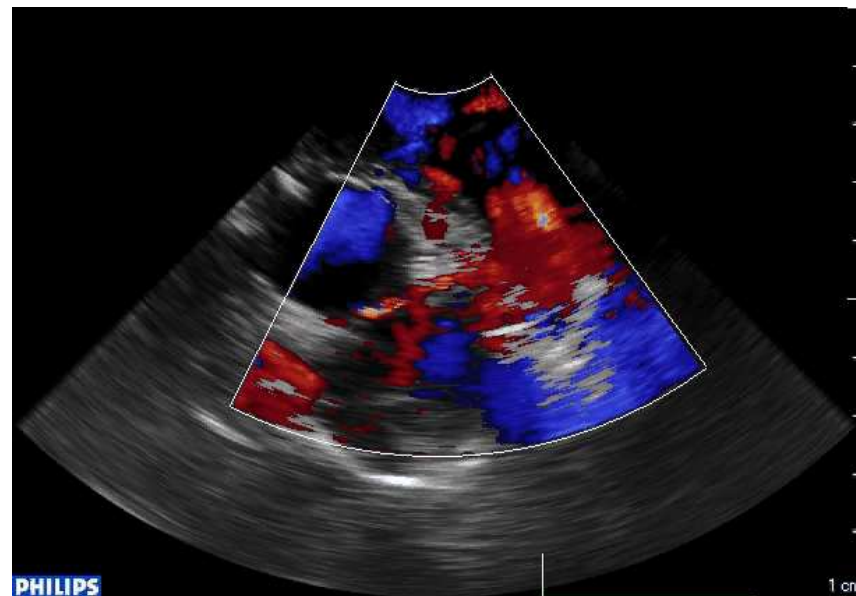
- Ostium en fente ++
- Trajet inter-aortico pulmonaire / intramural

# CORONAIRE DROITE DU SINUS GAUCHE



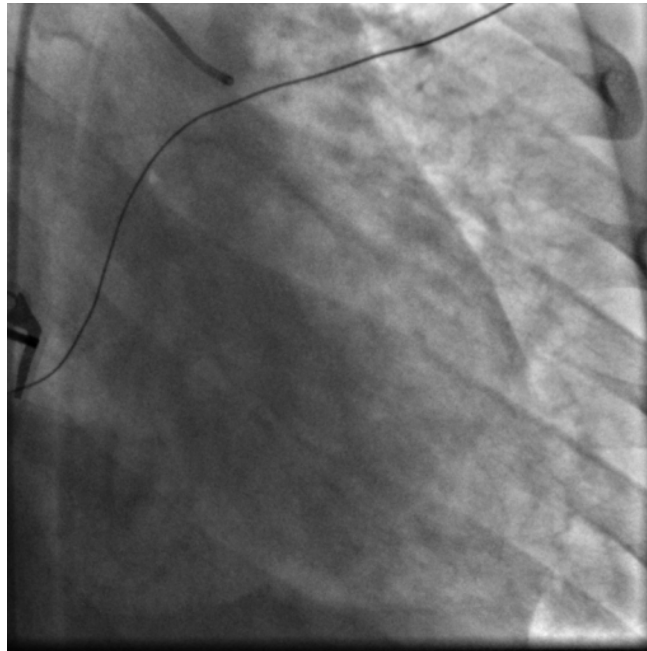
# TRAJET INTRA-MURAL



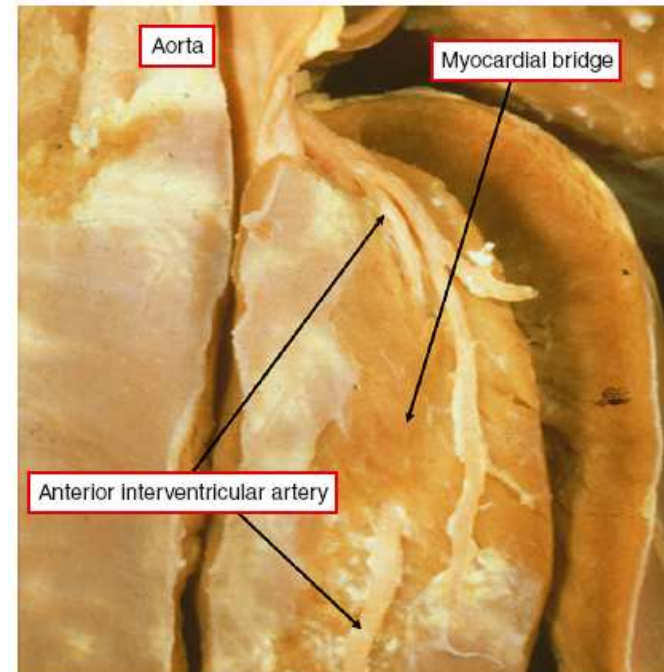
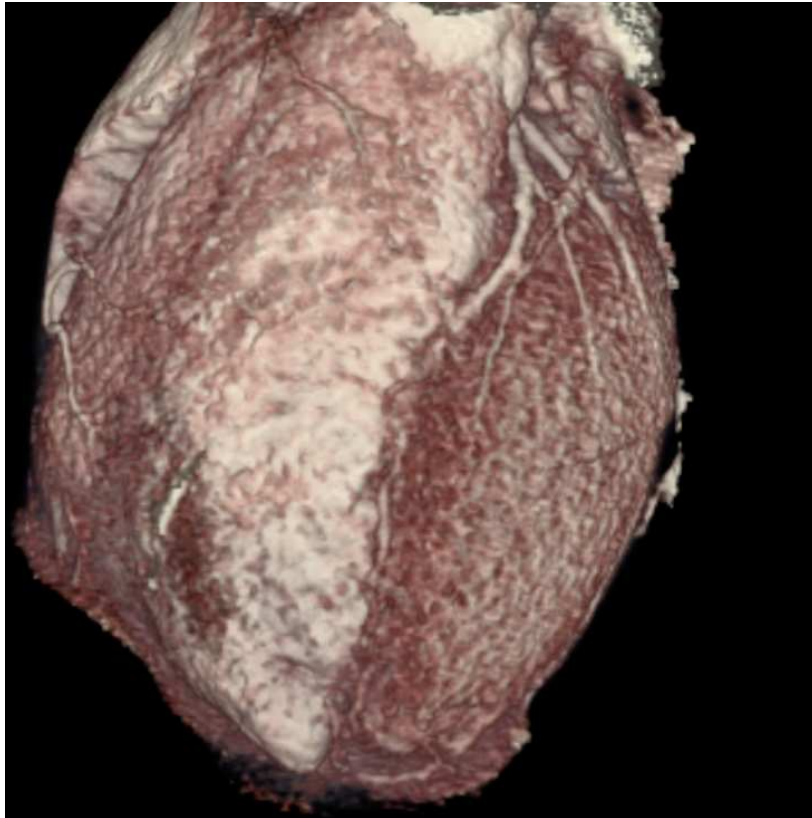


14 ans

Douleurs thoraciques

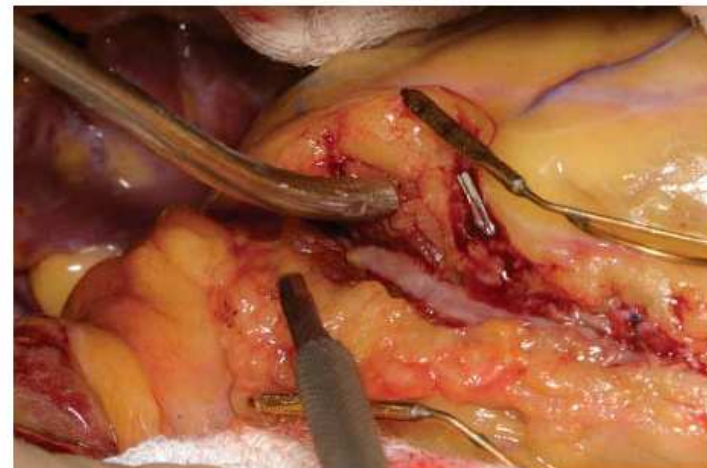


# PONT INTRAMYOCARDIQUE



16 ans

Mort subite récupérée à l'effort



# **FISTULES CORONAIRES**

# Fistules

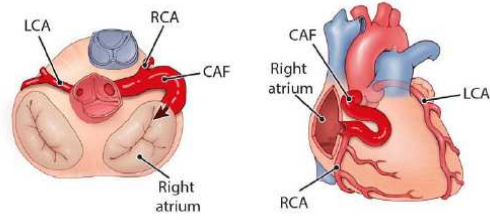
- Isolée ou associée à une autre CC
- 2/3: anomalie congénitale, 1/3: lésion acquise (trauma, post-op, takayasu,...)
- Embryologie: persistance des sinusoïdes ?
- Fistule unique = 90%
- Fistules multiples = 10%
- IVA et CD +++
- Drainage dans les cavités droites: 92%



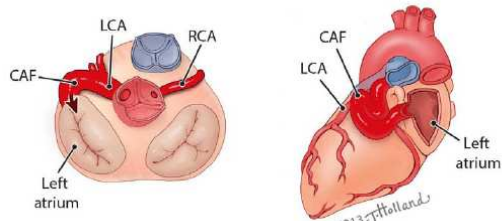
# Clinique

- Petite fistule: asymptomatique
- Insuffisance cardiaque si shunt important
- Souffle continu
- Arythmies
- RP: cardiomégalie
- Complications à long terme: endocardite, arythmies, ischémie (si athérosclérose)

Type 1

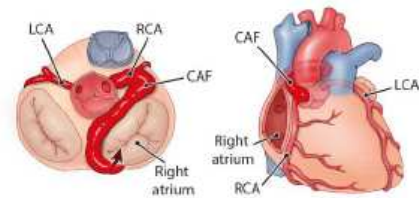


RCA to right atrium

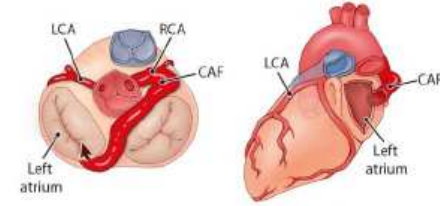


LCA to left atrium

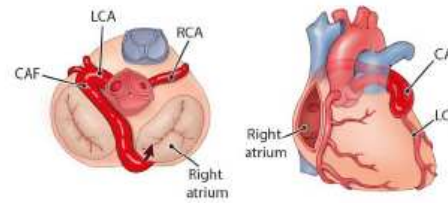
Type 2



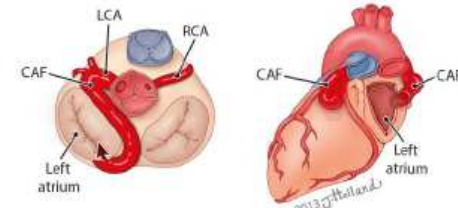
RCA to right atrium via interatrial route



RCA to left atrium via interatrial route

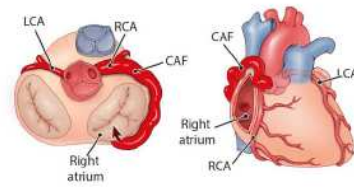


LCA to right atrium via interatrial route

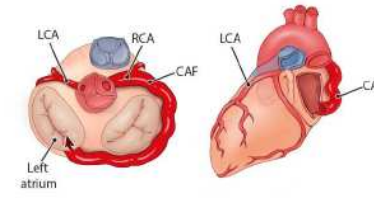


LCA to left atrium via interatrial route

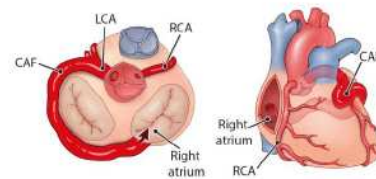
Type 3



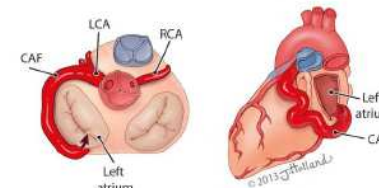
RCA to right atrium via circumferential route terminating at AV groove



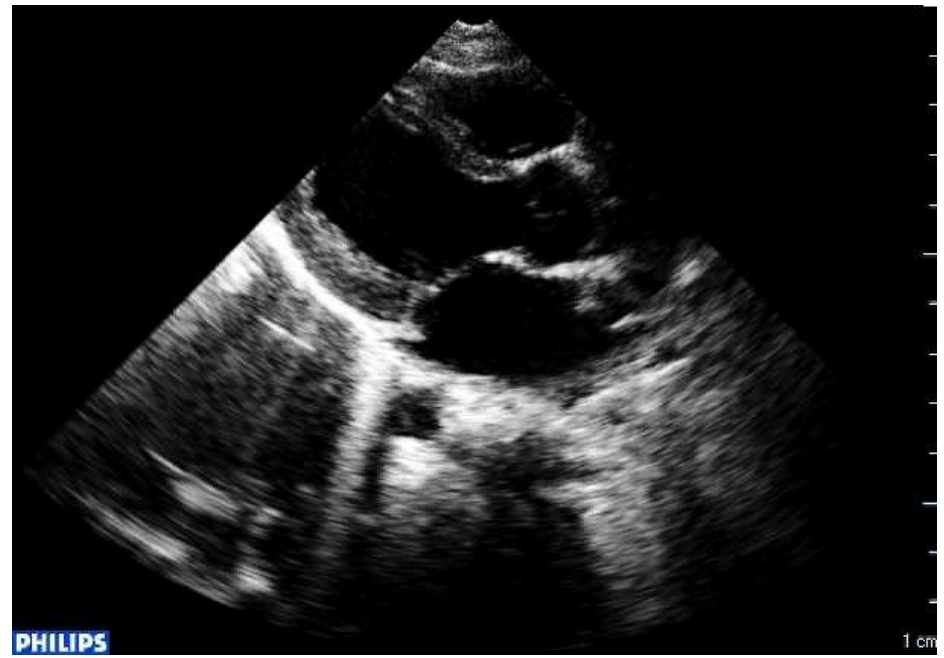
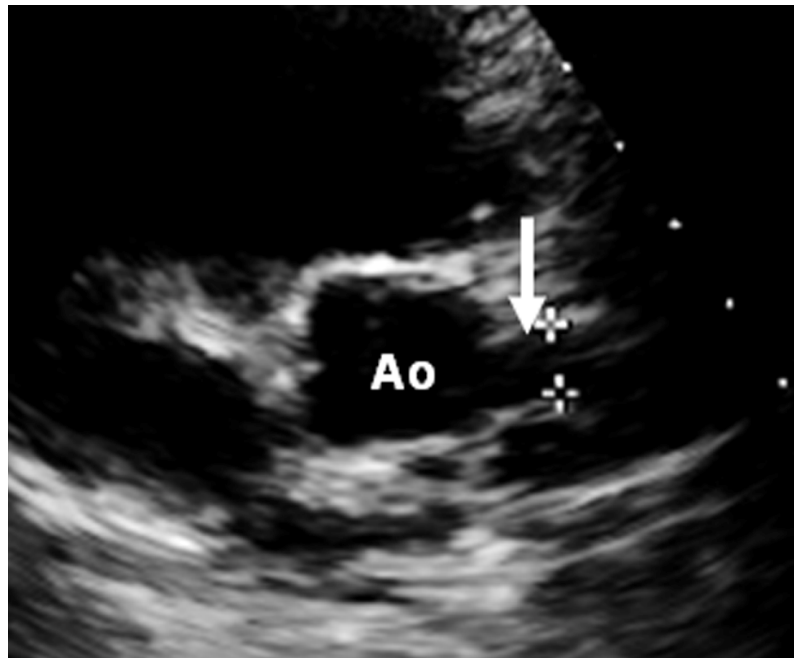
RCA to left atrium via circumferential route terminating at AV groove

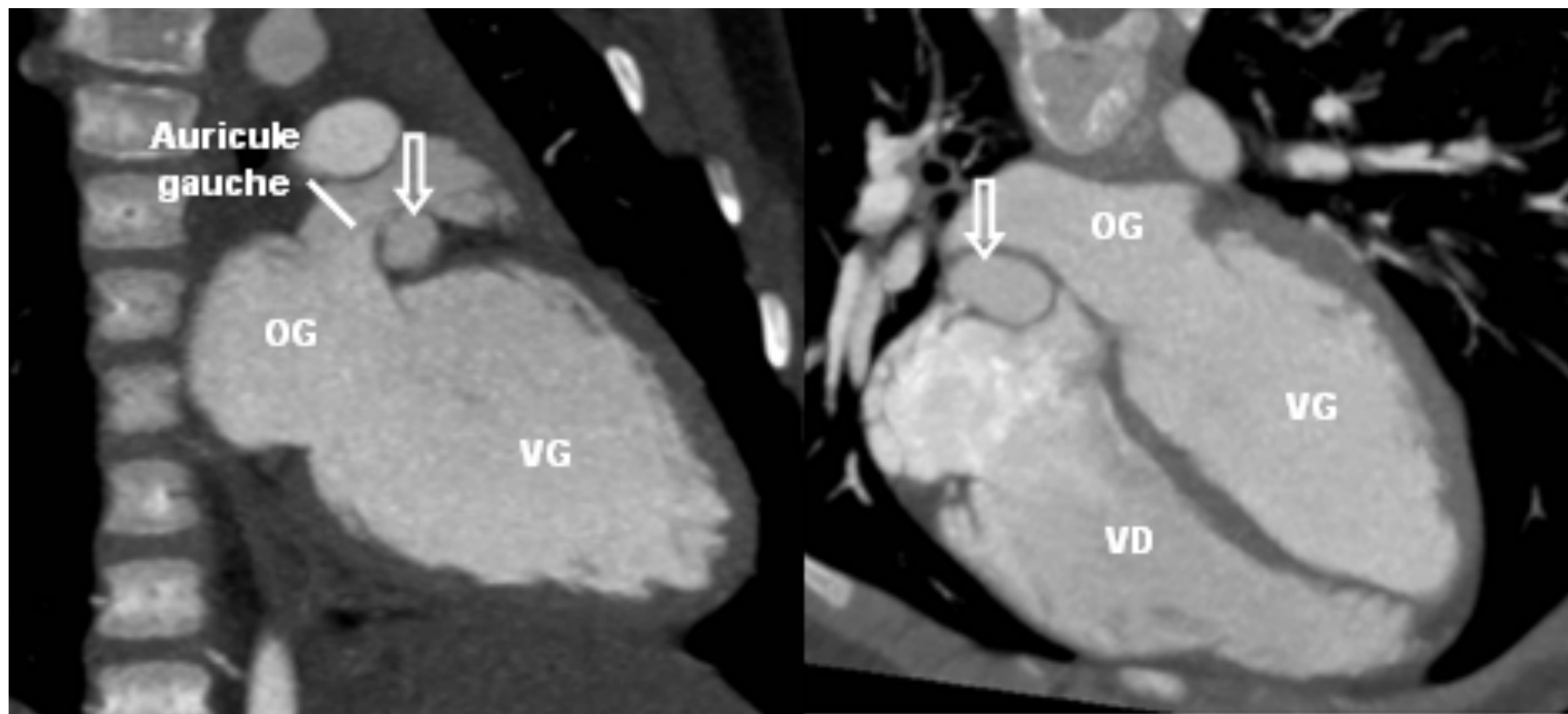


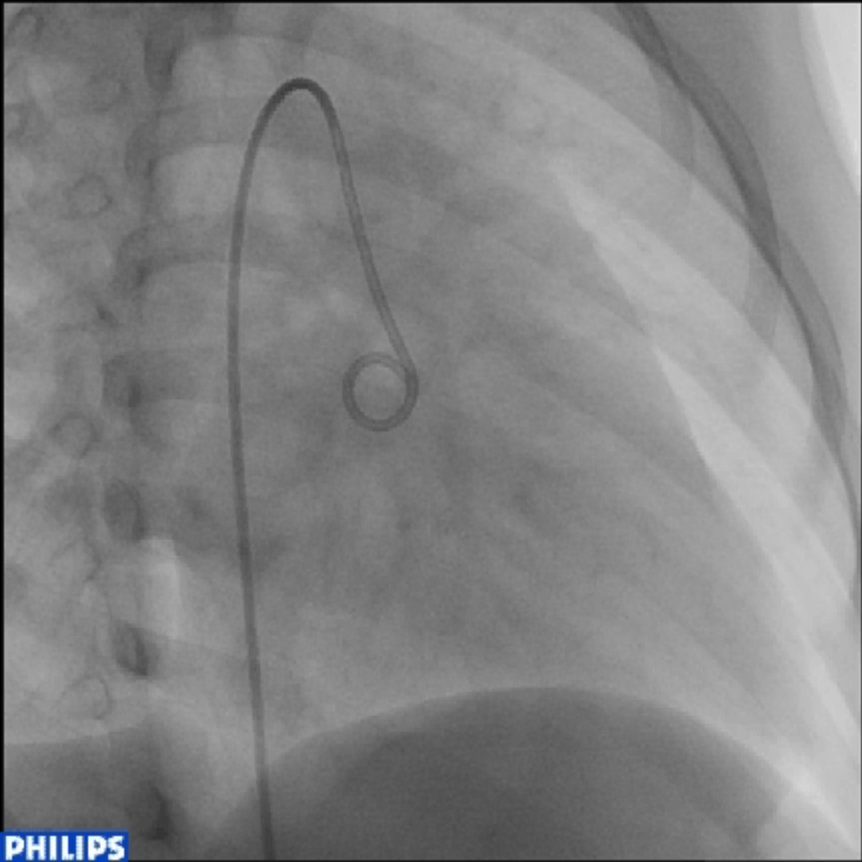
LCA to right atrium via circumferential route terminating at AV groove



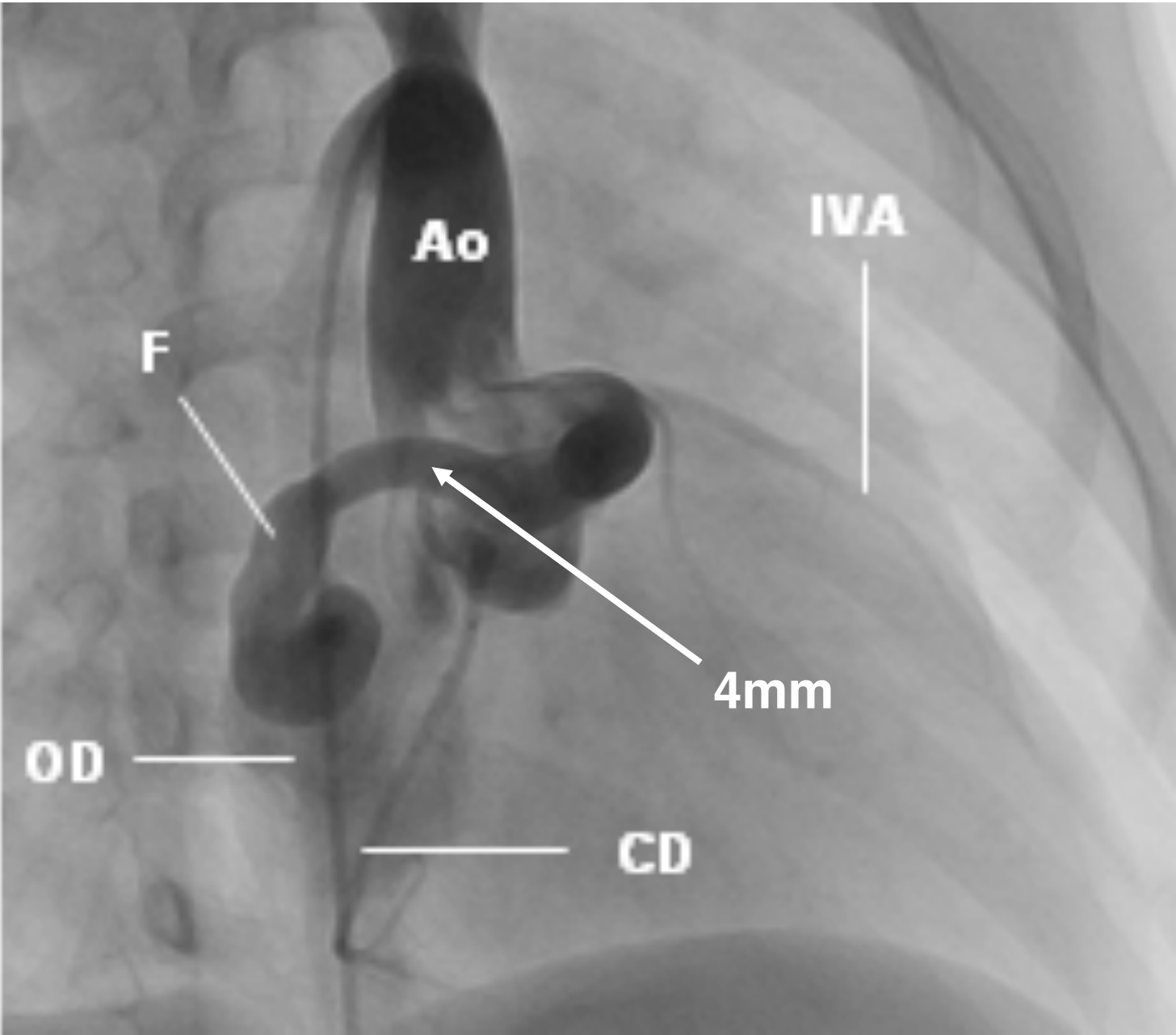
LCA to left atrium via circumferential route terminating at AV groove

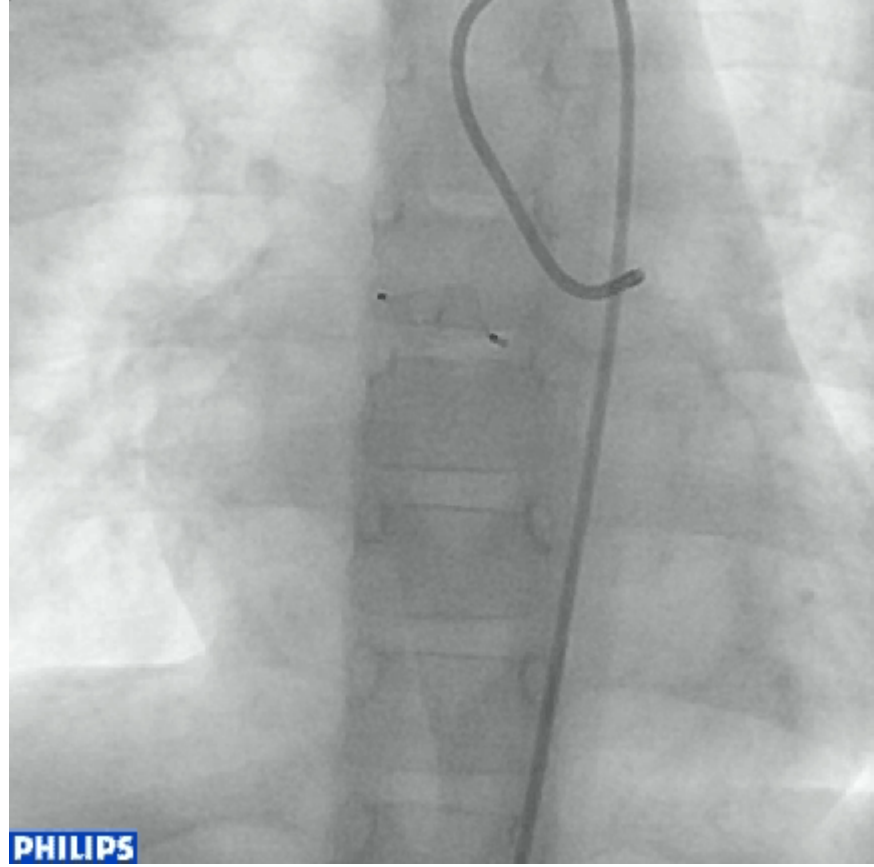






PHILIPS





# Indications de fermeture

- Patients symptomatiques (tout âge)
- Patients asymptomatiques: après 3-5 ans si:  
fistule moyenne/grande
- Endocardite

⇒ Cathétérisme ou chirurgie