



# “La vie en rose”

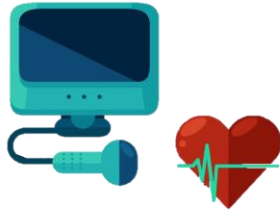
Romero Valero A, Núñez Martínez L, Guedes Ramallo P, Peris Castelló F, Rodríguez Santiago FM, Jaimez E, Martínez Tébar MJ, Mompel A, Coves Orts FJ, Morillas Blasco P



Cardiología

H. General Universitario Elche

# ANTECEDENTES PERSONALES



Mujer 76 años

HTA, DLP

Ictus isquémico  
lacunar semioval  
izquierdo en  
enero 2017



Marzo 2018

VI de tamaño  
normal, sin alt.  
contractilidad y  
FEVI conservada.  
No valvulopatías  
significativas

Carvedilol  
Enalapril  
AAS  
Atorvastatina  
Ameride  
Sertralina  
Seretide  
Spiriva

Acude a  
Urgencias por  
desorientación,  
MEG y  
bradipsiquia

TA 142/78 mmHg,  
FC 100 lpm, SatO2 96%

 Crepitantes bibasales

 Rítmicos, no soplos

No focalidad

 Ligera bradipsiquia

# ANALÍTICA

## BIOQUÍMICA



Glucosa 107 mg/dL, Urea 68 mg/dl

Cr 1,20 mg/dl, FG 44 ml/min/1,73

Na 142 mmol/L, K 3,2 mmol/L  
Proteínas totales 6,3 mg/dl

Función hepática normal

## MARCADORES CARDÍACOS



**CK 128 U/L**

**Tn I 1,0 ng/ml**

**NT-ProBNP 19900 pg/ml**

## HEMOGRAMA



Hb 11,0 g/dL Hto 32%

Leucocitos 12110/uL  
(N 51%, L13%, M4%, **E31%**)  
**Eosinófilos 3750/μL**

Plaquetas 296000/uL

## COAGULACIÓN



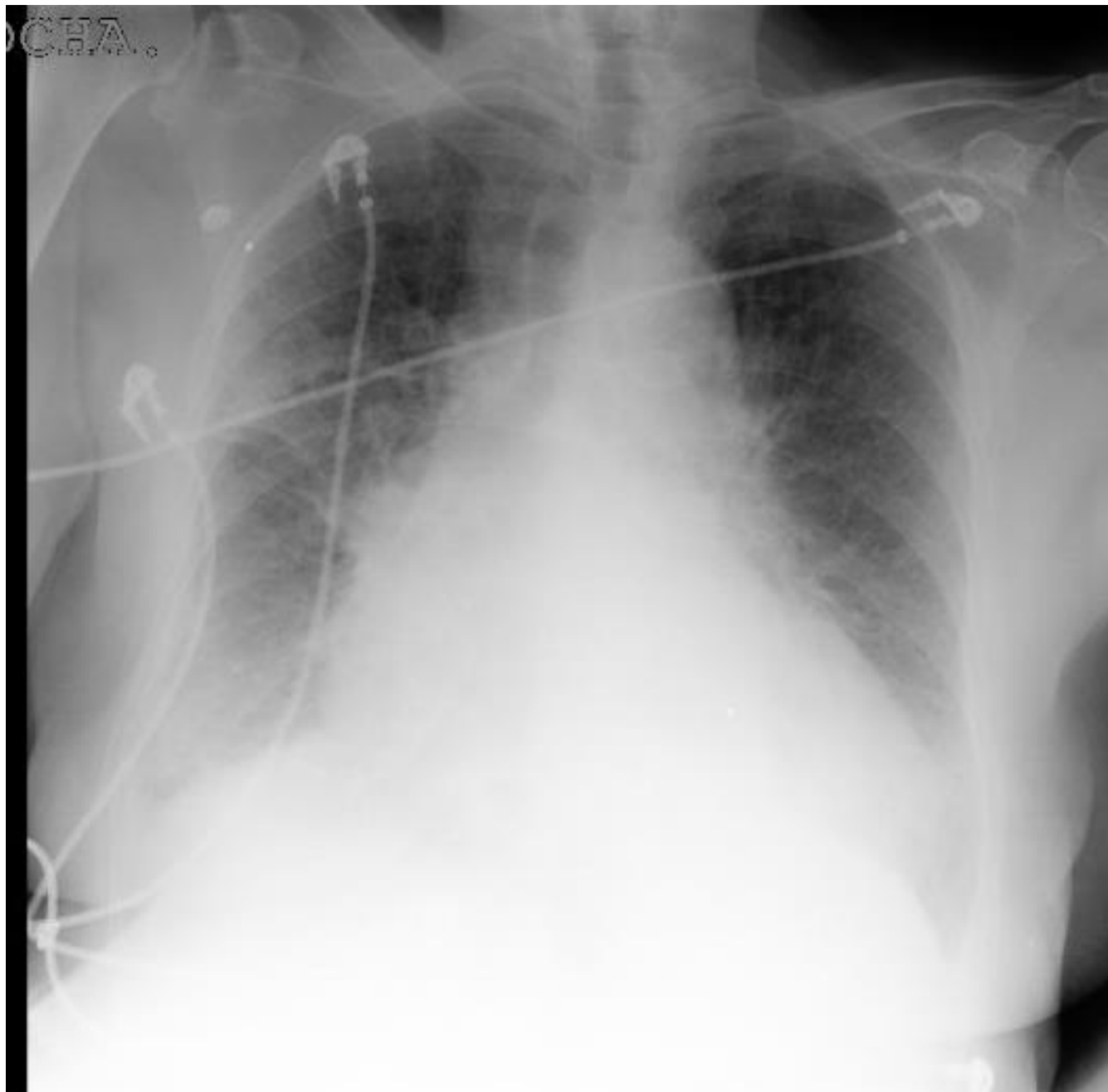
APPT 24 s, TP 13,8 s

Quick 85%

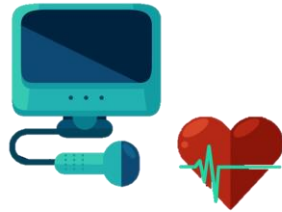
INR 1,1

# RADIOGRAFÍA TÓRAX

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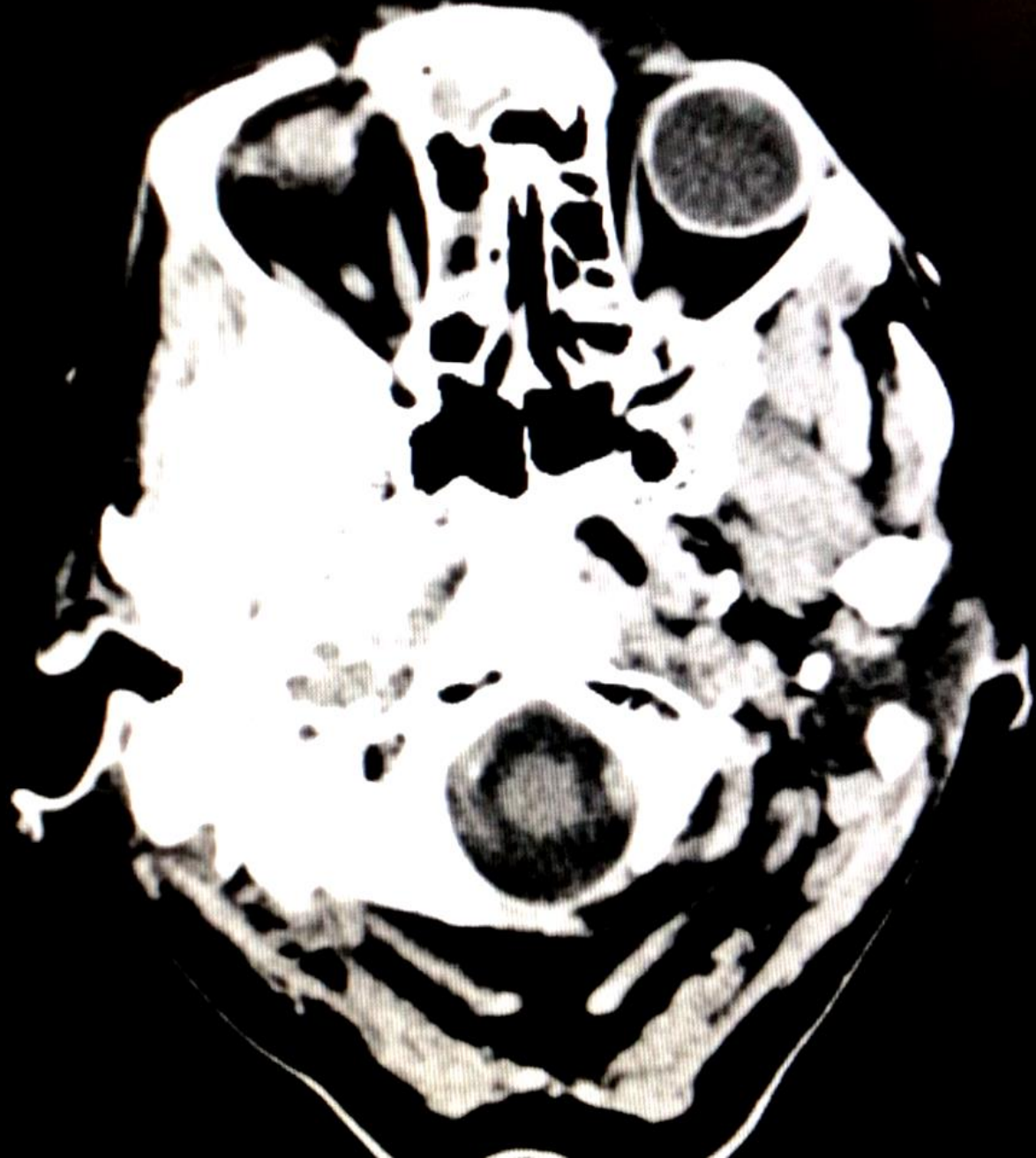
Acude a  
Urgencias por  
desorientación,  
MEG y  
bradipsiquia

INGRESO  
UCI

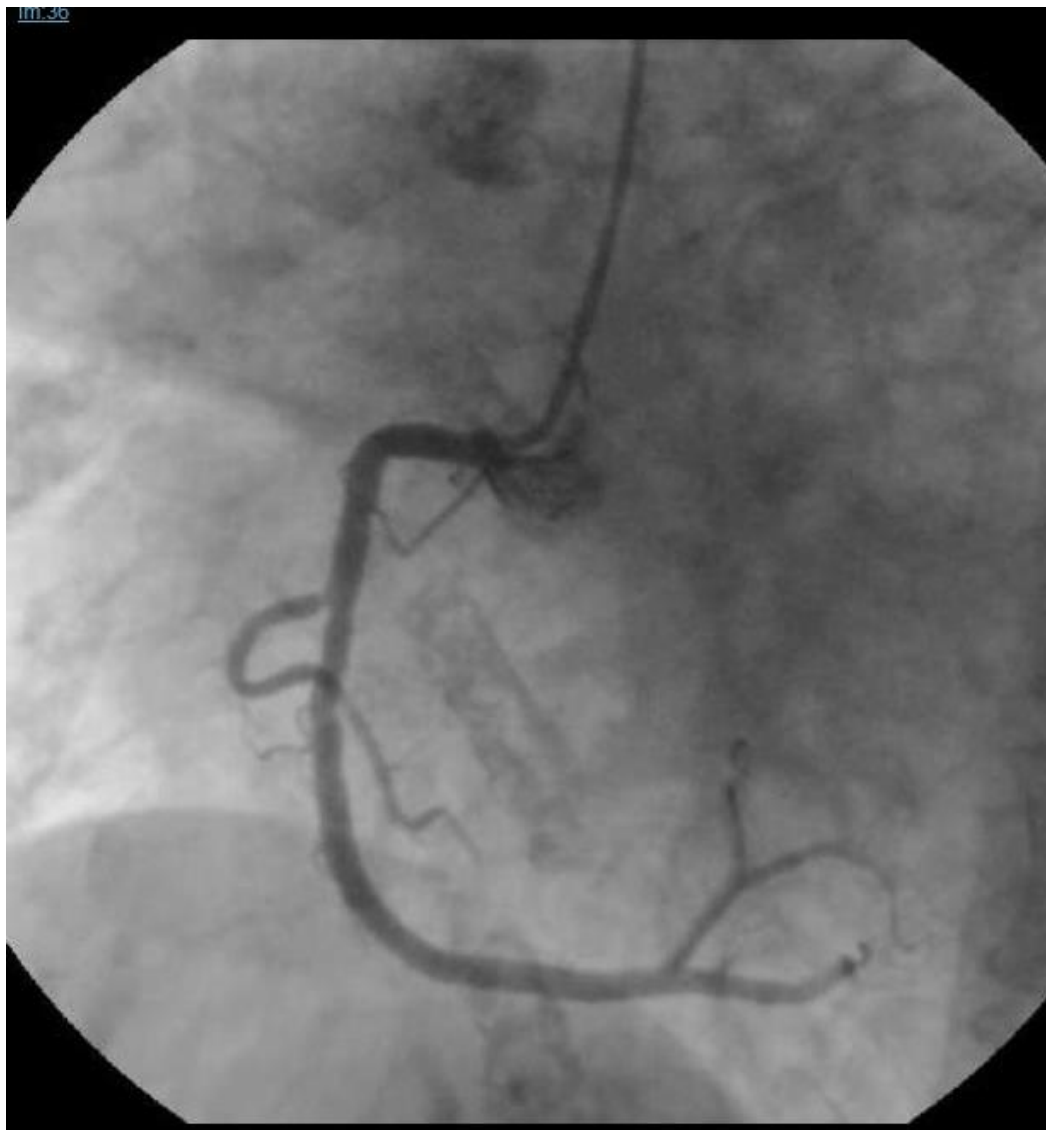
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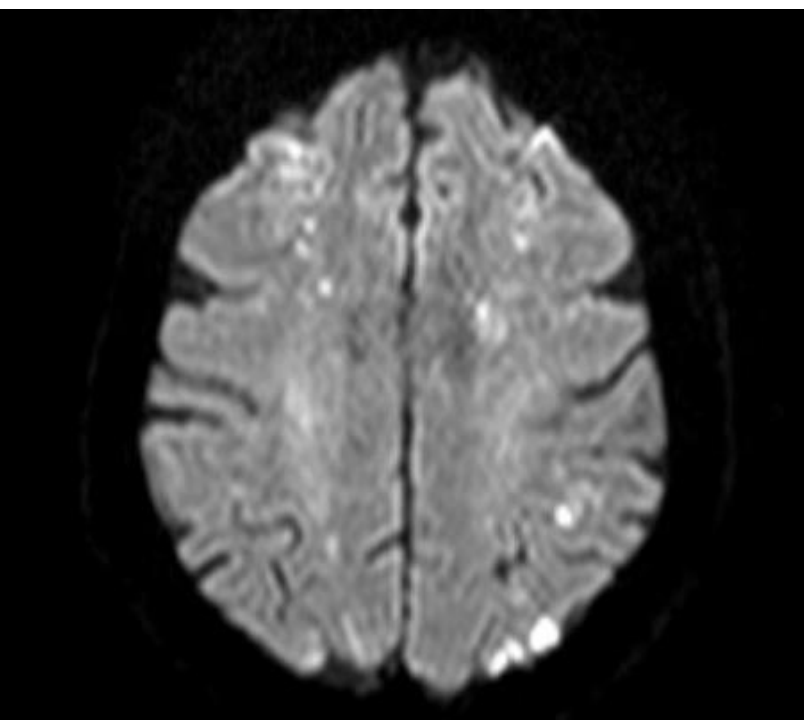
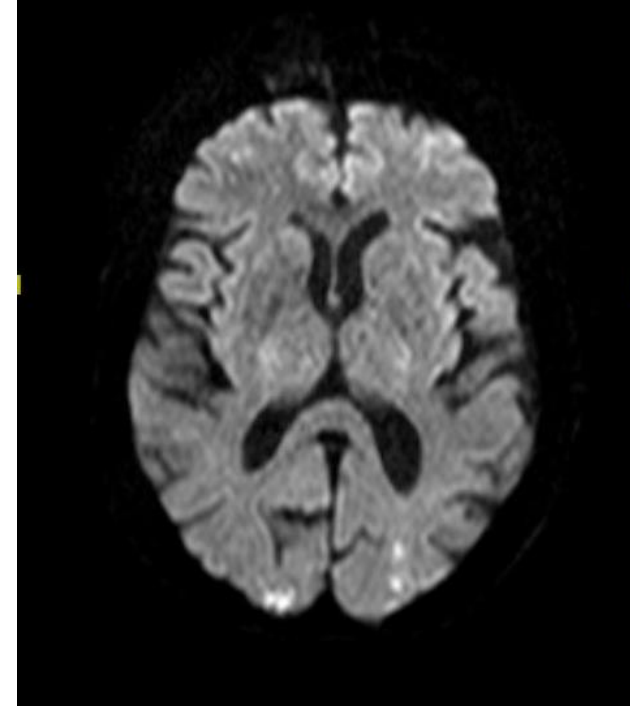
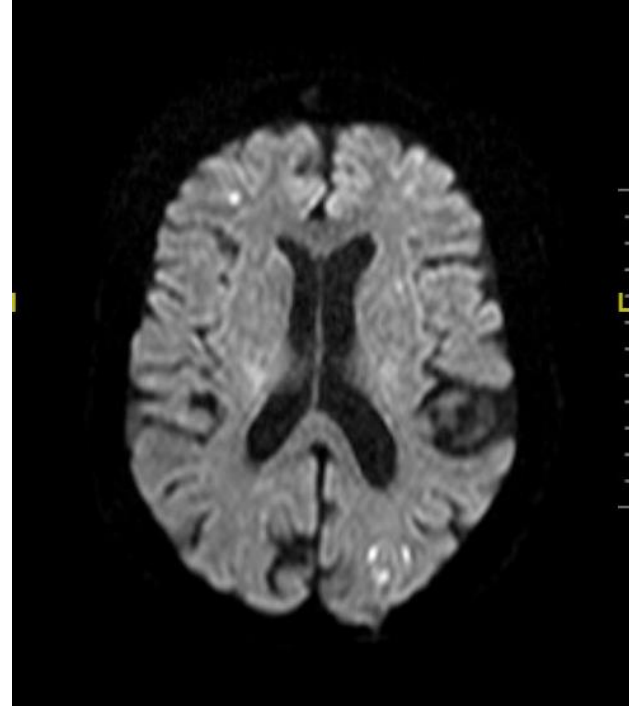
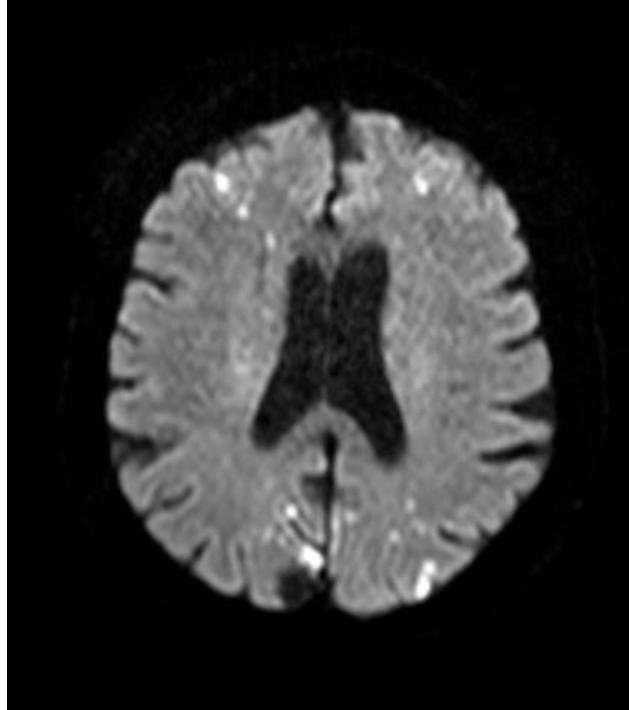
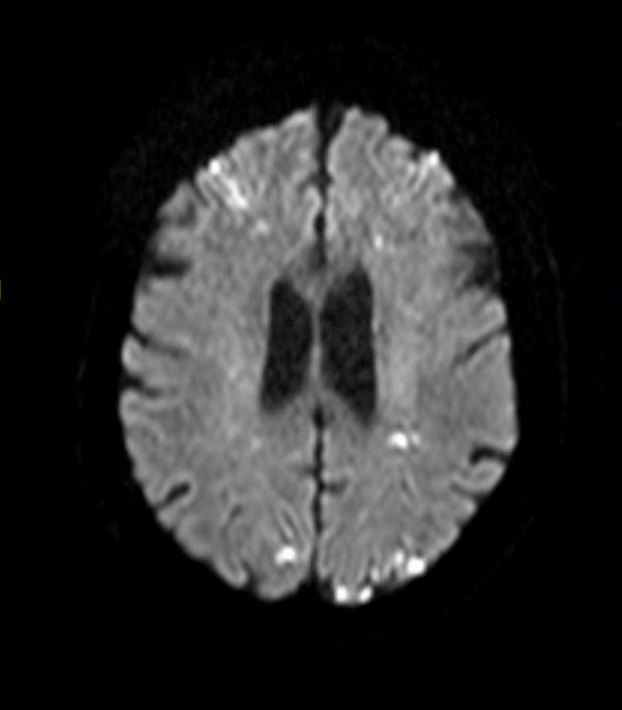
IAMSEST

# TC CRANEAL



# CORONARIOGRAFÍA

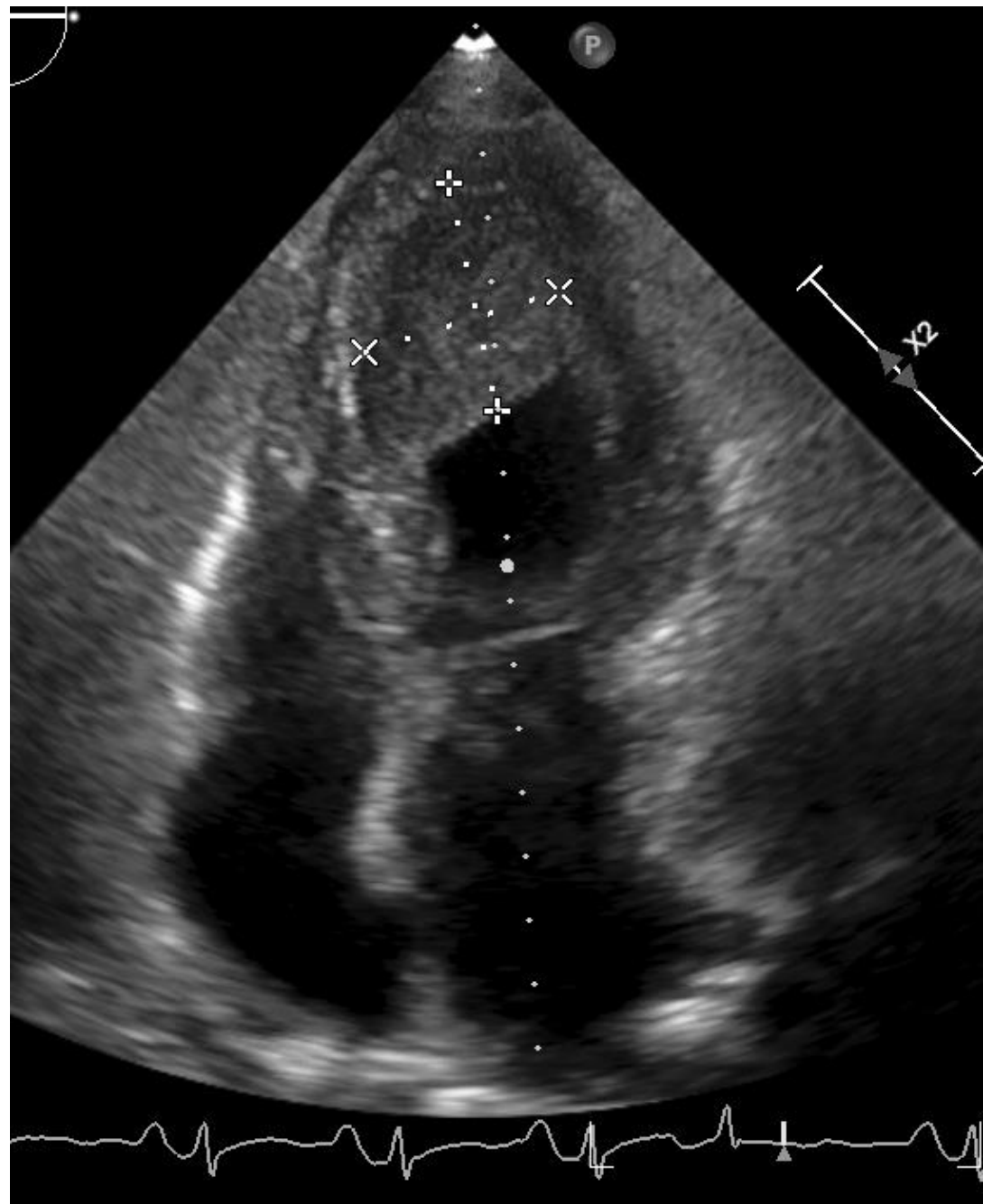
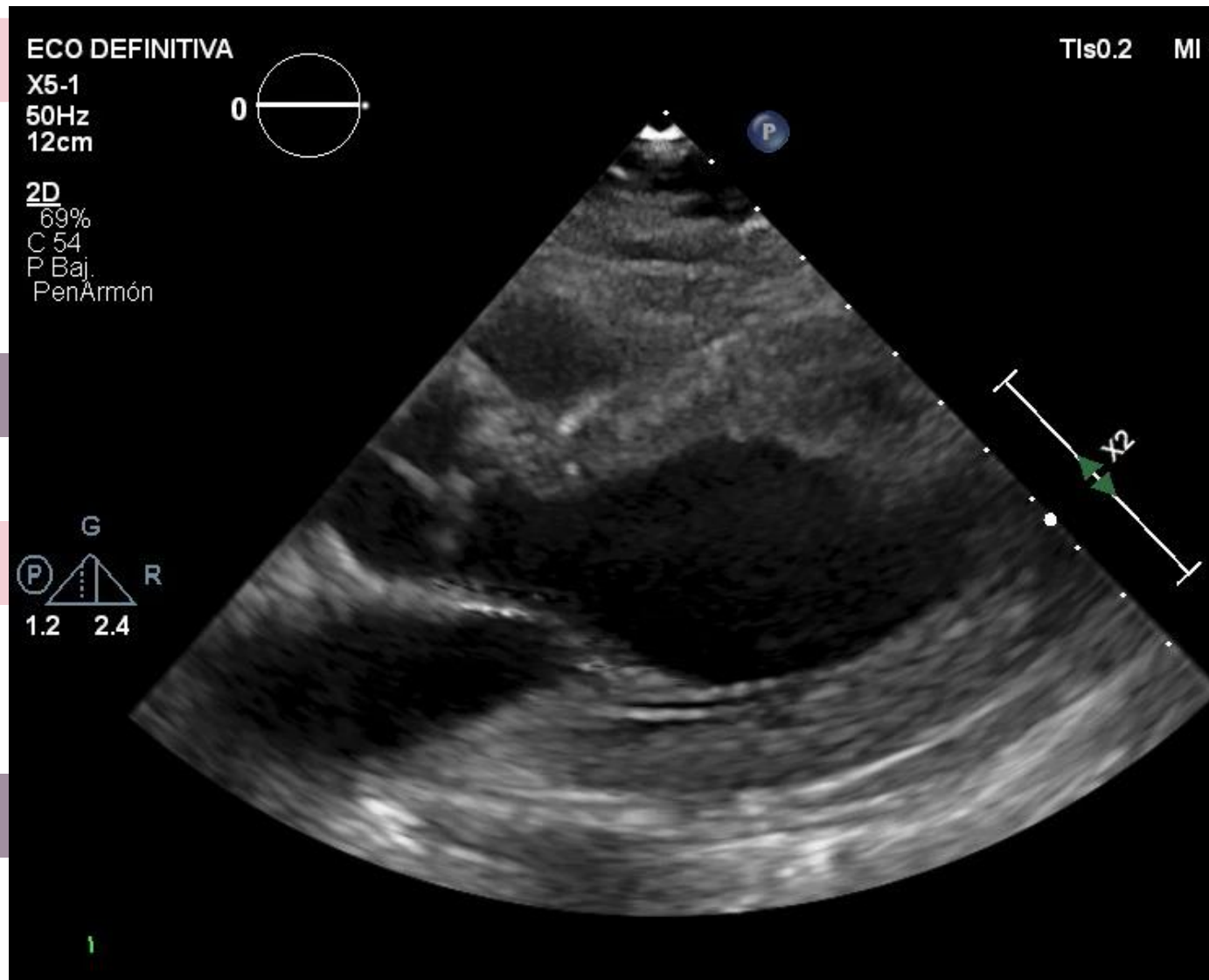




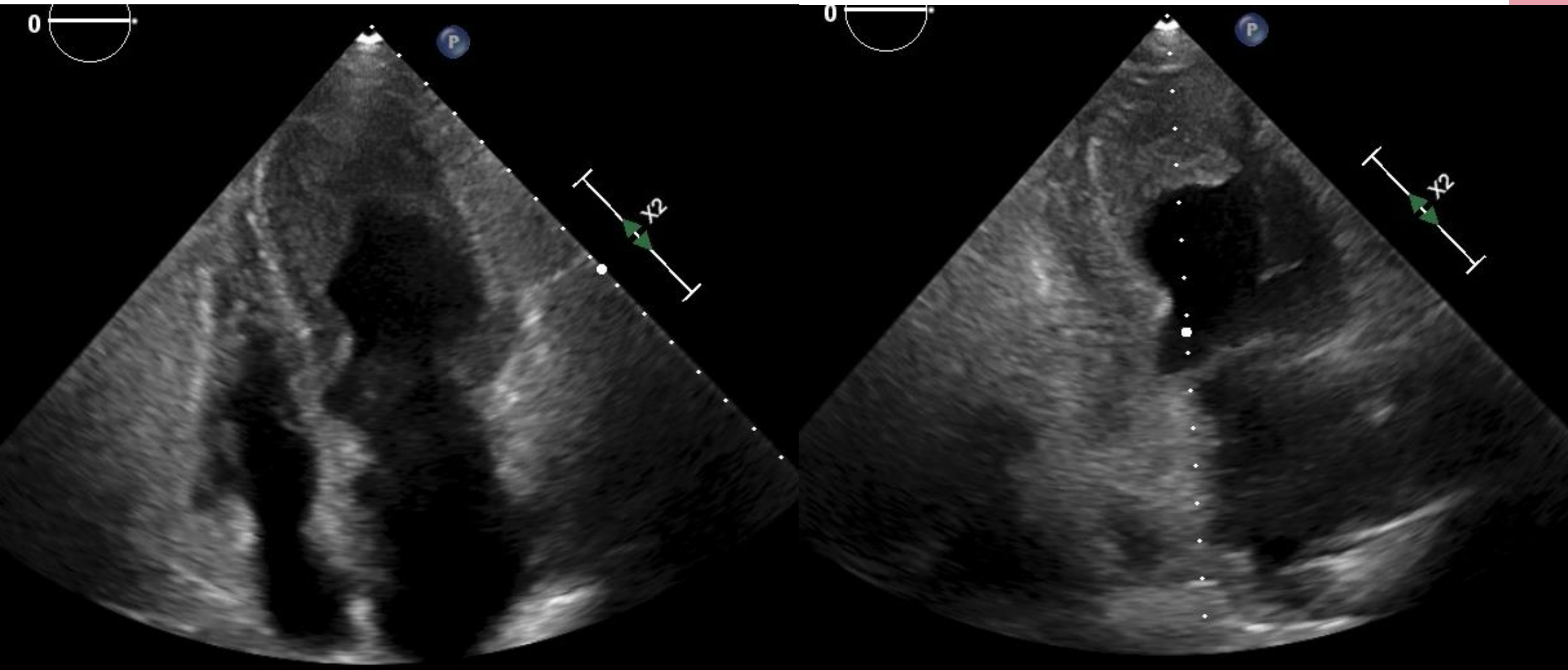
**RESONANCIA ENCEFÁLICA**



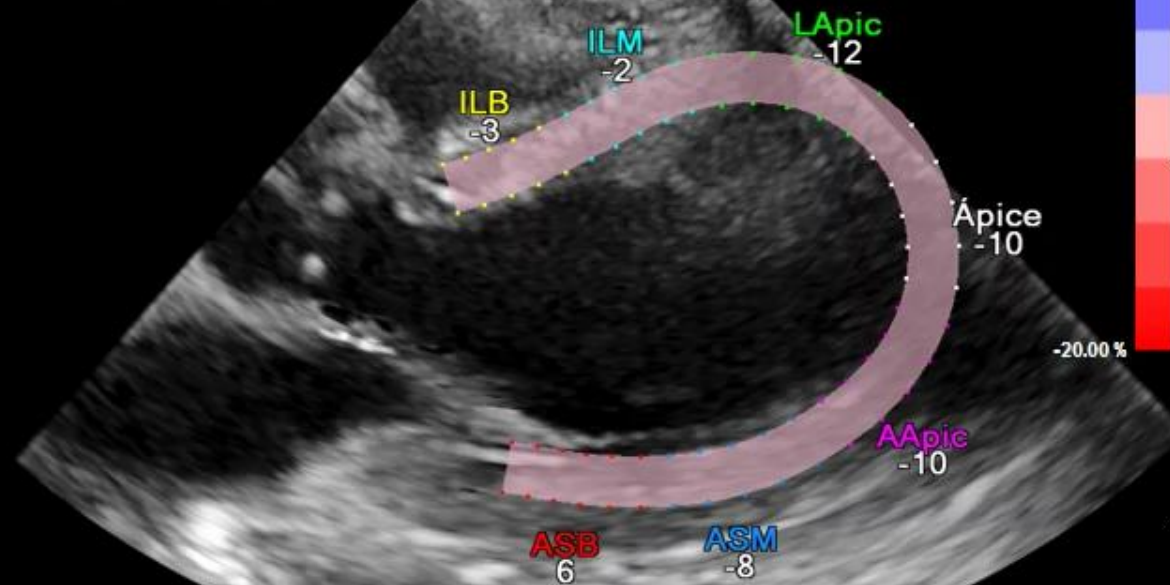
# ECOCARDIOGRAFÍA



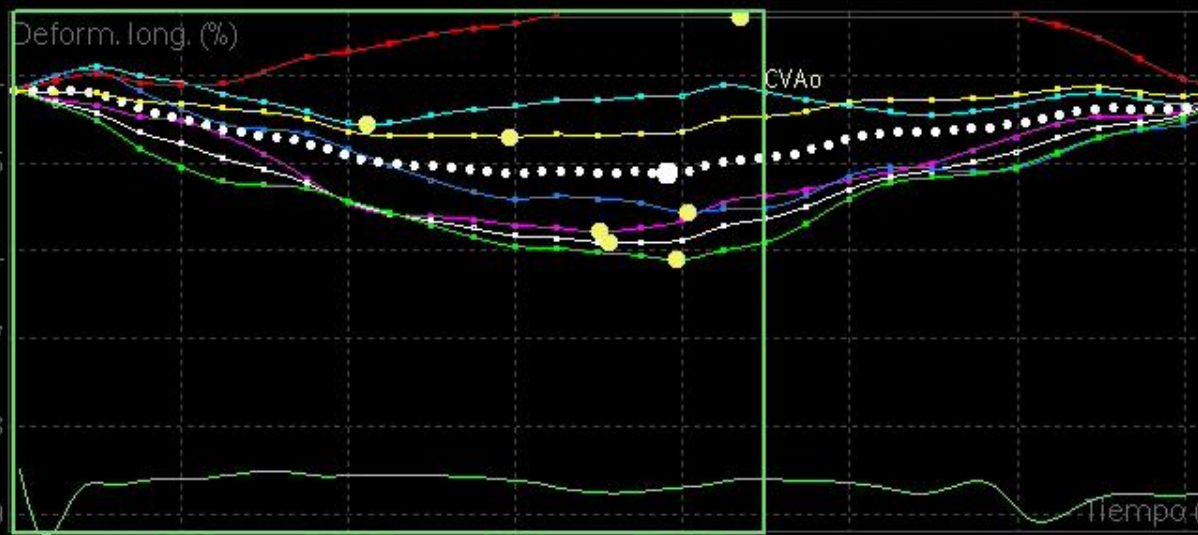
# ECOCARDIOGRAFÍA



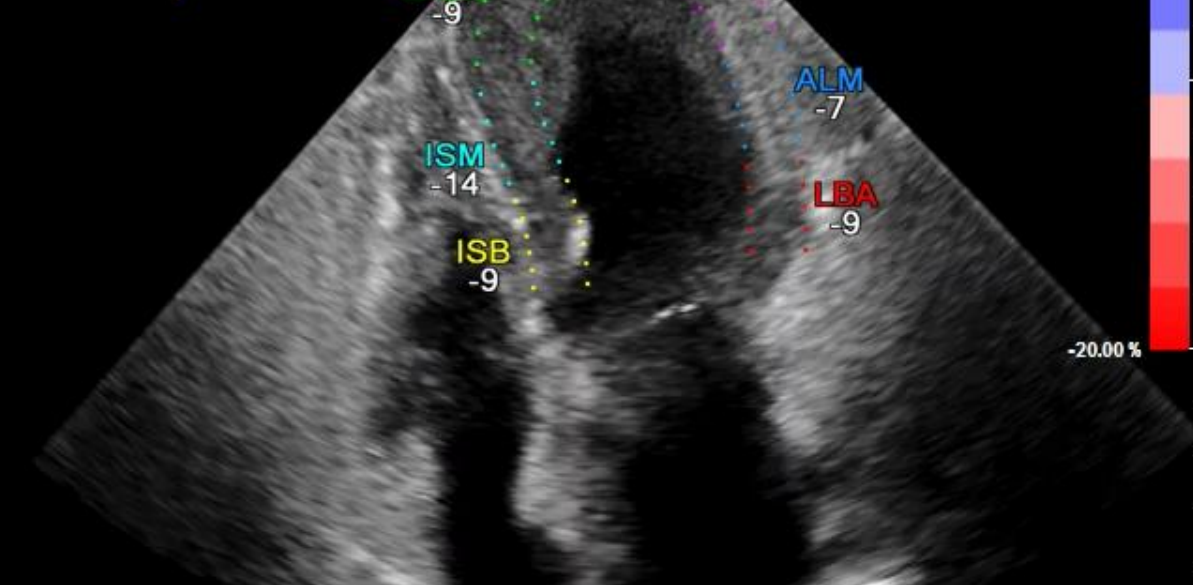
A3C 1/1  
 12:28:03  
 FC = 100 lpm  
 DesvEst tmpo. = 56.0 ms



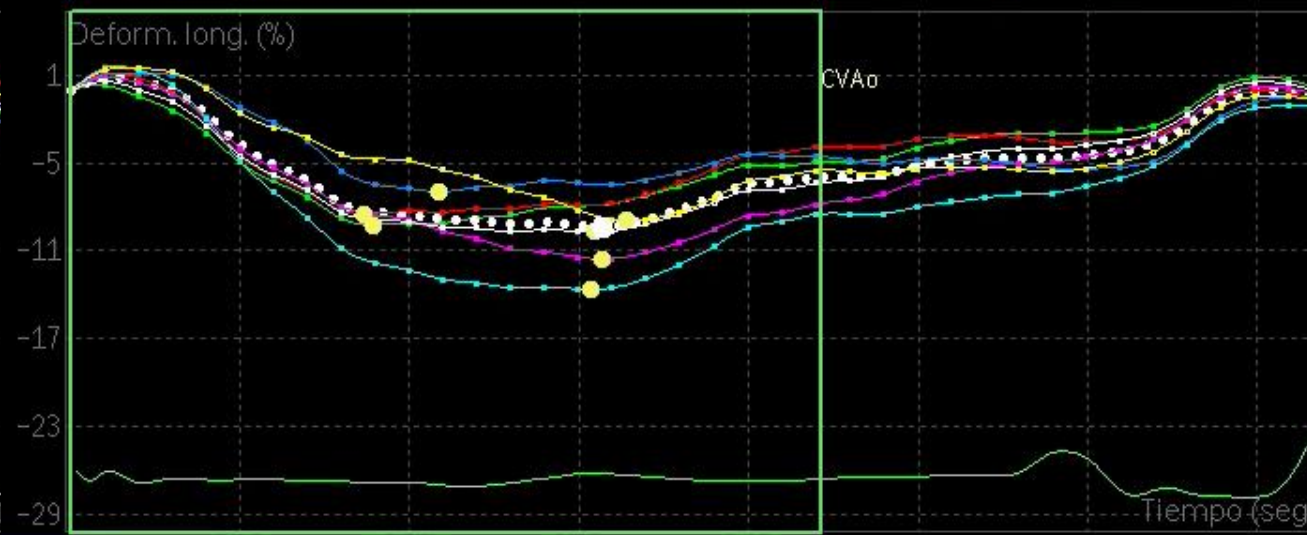
Aceptado  
 A3C Deform. long. = -5.7 %



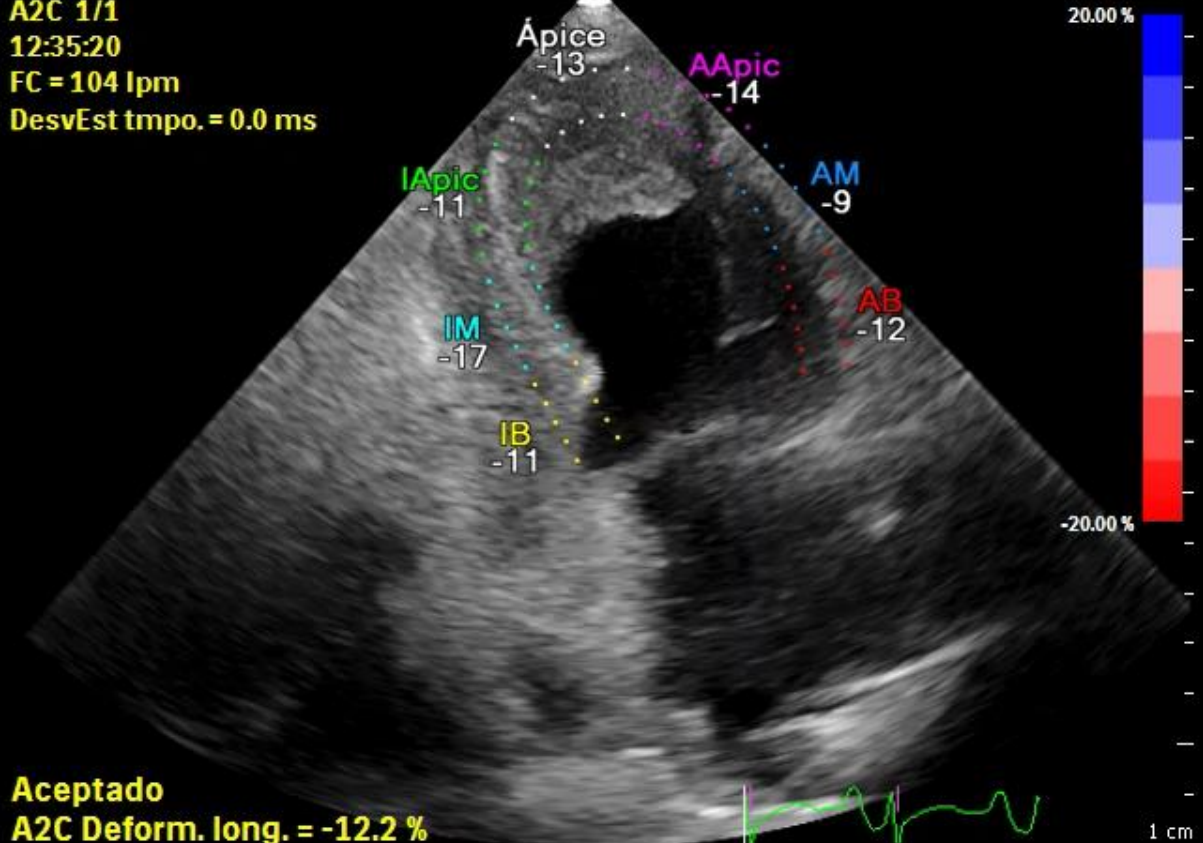
A4C 1/1  
 12:30:23  
 \* FC = 81 lpm  
 (\* Variación de FC > 10 %)  
 DesvEst tmpo. = 63.5 ms



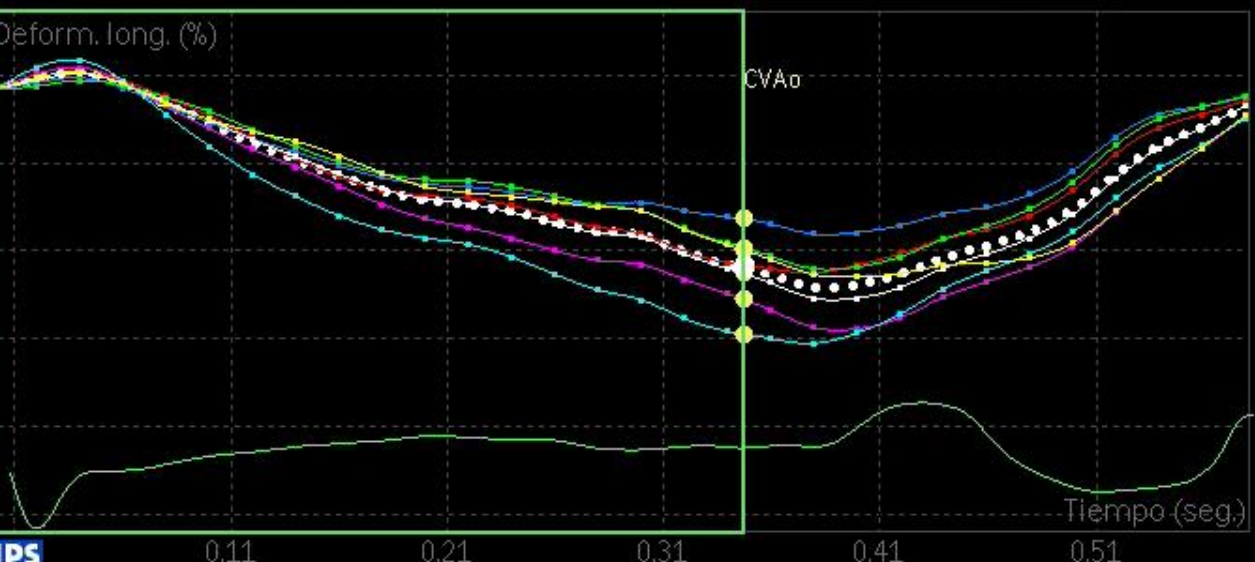
Aceptado  
 \* A4C Deform. long. = -9.4 %



A2C 1/1  
 12:35:20  
 FC = 104 lpm  
 DesvEst tmpo. = 0.0 ms



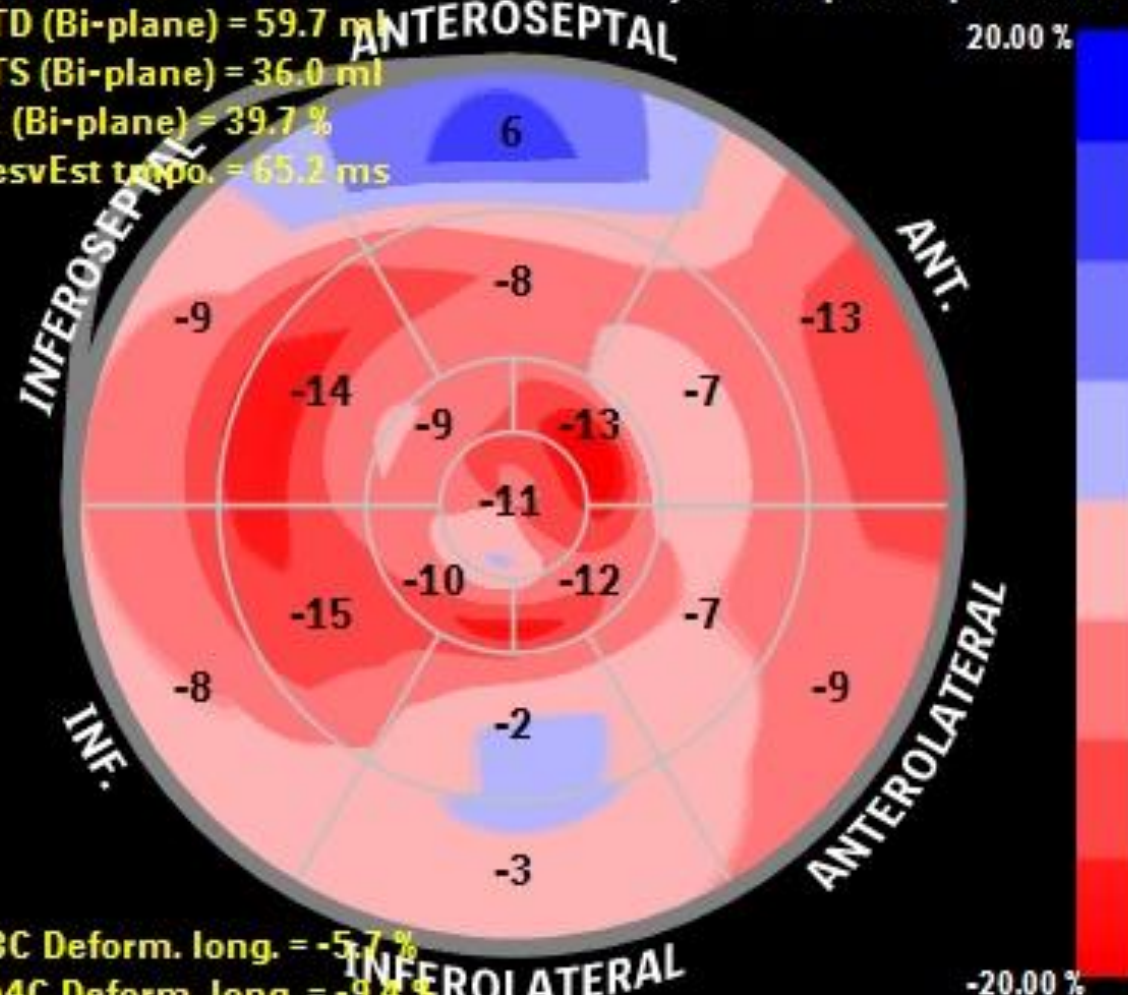
**Aceptado**  
 A2C Deform. long. = -12.2 %



# ECOCARDIOGRAFÍA

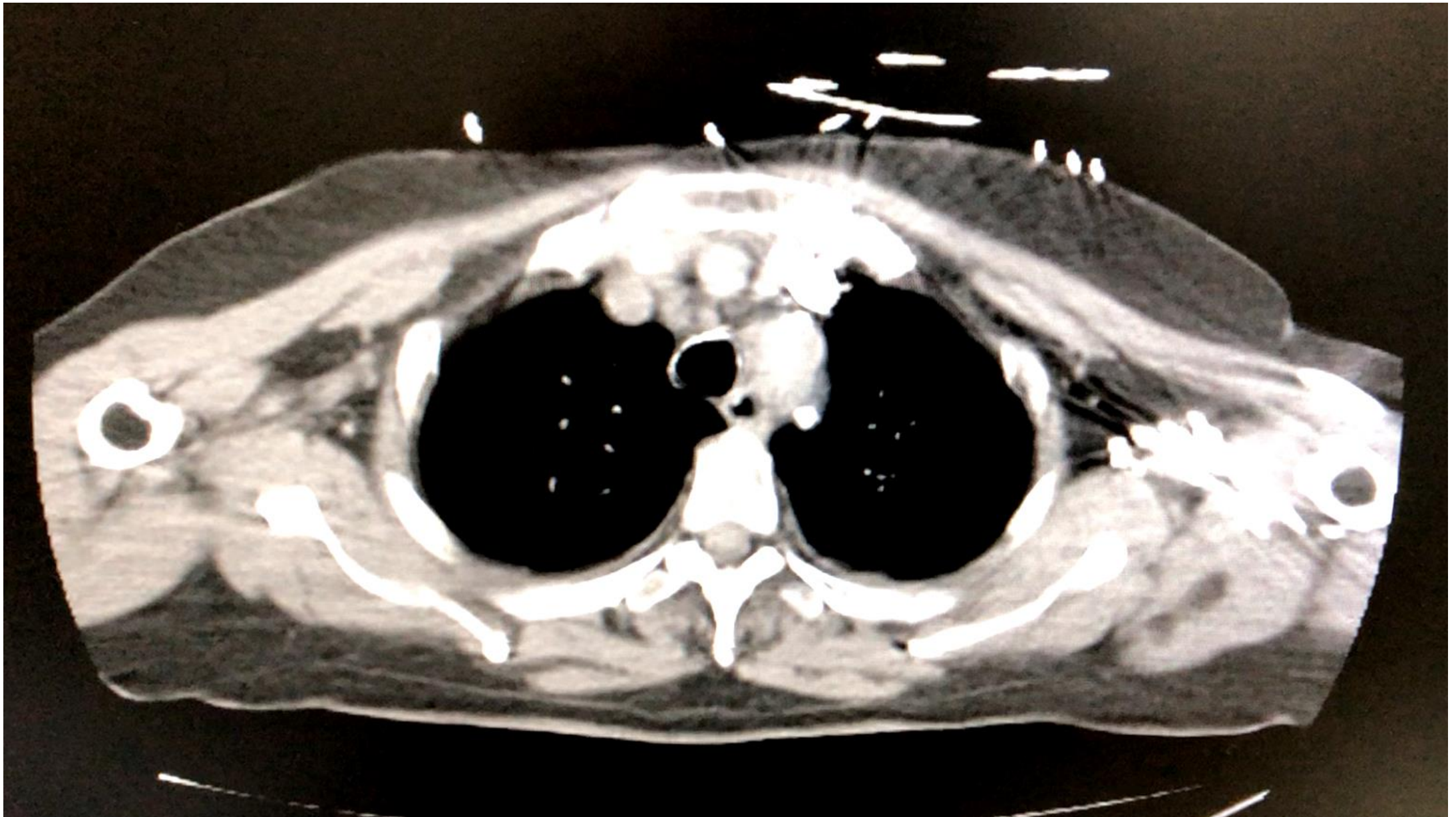
Deform. pico  
 \* FC (Prom.) = 95 lpm  
 VTD (Bi-plane) = 59.7 ml  
 VTS (Bi-plane) = 36.0 ml  
 FE (Bi-plane) = 39.7 %  
 DesvEst tmpo. = 65.2 ms

\* : Variación de FC > 10 %  
 Amarillo: Aceptada  
 Rojo: Aceptación pendiente



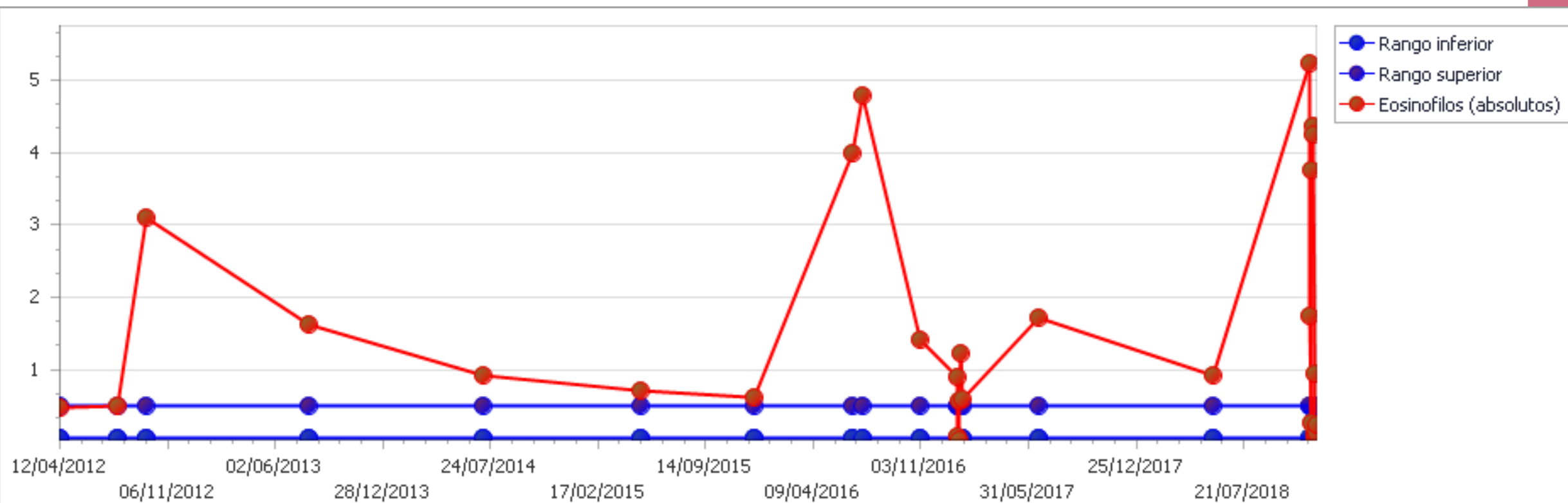
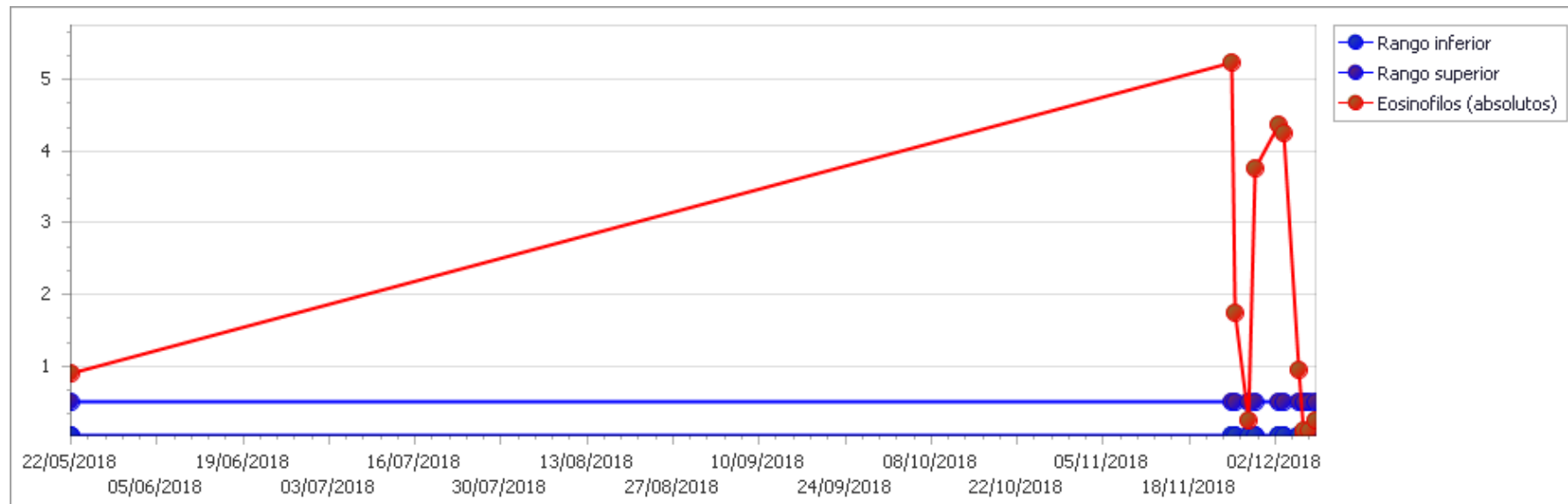
A3C Deform. long. = -5.7 %  
 \*A4C Deform. long. = -9.4 %  
 A2C Deform. long. = -11.5 %  
 Global Deform. long. = -9.2 %

# ANGIOTC PULMONAR





# EOSINOFILIA



# SEROLOGÍA



## Serología de Hidatidosis

Anticuerpos hidatidosis (IgG) **Negativo**

## Detección de antígeno de Aspergillus spp.

Ag Aspergillus (galactomanano) **Negativo 0,2**

## Quantiferón TBC (IGRAS)

Quantiferón Tuberculosis (Interferón gamma) **Anulada**  
*Muestra sin identificar.*

## Serología de Mycoplasma pneumoniae

Mycoplasma pneumoniae IgG **Negativo**

Mycoplasma pneumoniae IgM **Negativo**

## Serología de Virus Herpes Simple

VHS 1+2 IgG **POSITIVO**

VHS 1+2 IgM **POSITIVO**

## Serología de Varicella

Varicella zoster IgG **POSITIVO**

Varicella zoster IgM **Negativo**

## Serología de Parvovirus B19

Parvovirus B19 IgG **POSITIVO**

Parvovirus B19 IgM **Negativo**

VCA (V. Epstein-Barr) IgG **POSITIVO**

VCA (V. Epstein-Barr) IgM **Negativo**

*Patrón serológico compatible con infección pasada por el virus de Epstein-Bar.*

## Serología de Enfermedad de Lyme

IgG Borrelia burgdorferi **Negativo**

IgM Borrelia burgdorferi **Negativo**

## Serología de Fiebre Q

Coxiella burnetti IgG (Fiebre Q) **Negativo**

Coxiella burnetti IgM (Fiebre Q) **Negativo**

## Serología de Fiebre Q

Anticuerpos Coxiella burnetti IgG Fase I **Negativo**

Anticuerpos Coxiella burnetti IgG Fase II **Negativo**

Anticuerpos Coxiella burnetti IgM Fase I **Negativo**

Anticuerpos Coxiella burnetti IgM Fase II **Negativo**

Anticuerpos Coxiella burnetti IgA Fase I **Negativo**

Anticuerpos Coxiella burnetti IgA Fase II **Negativo**

## Serología de Rickettsia conorii (Fiebre botonosa)

Rickettsia conorii IgG **Negativo**

Rickettsia conorii IgM **Negativo**

## Serología de Leishmania

Ac. totales Leishmania **Negativo**

## Investigación de Enfermedad de Chagas

Ac. IgG T. cruzi (Chagas) **Negativo**

Anticuerpos CHAGAS IC **Negativo**

# AUTOINMUNIDAD



C4 49 mg/dL (14-44)

Beta-2 microglobulina 4,3 mg/L  
(0.8 – 2,3)

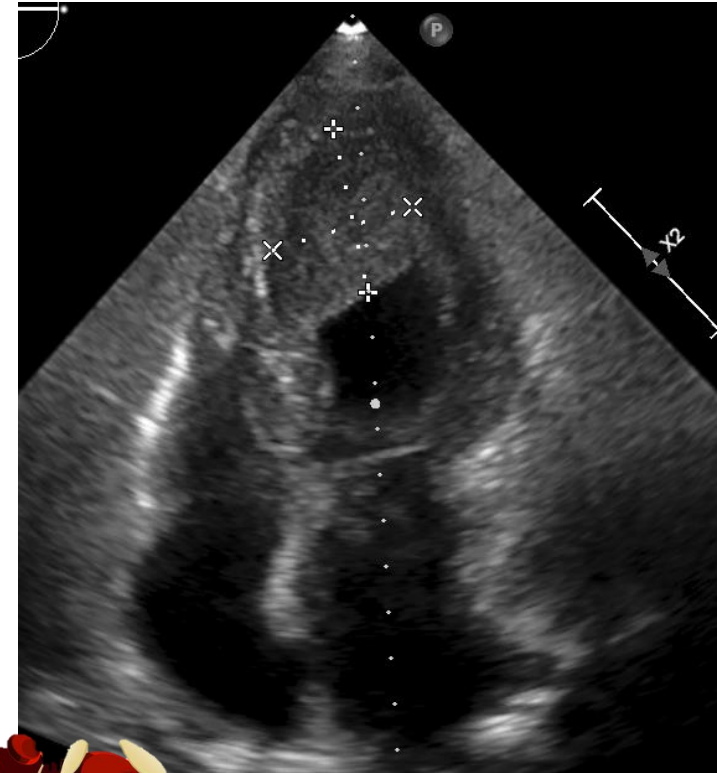
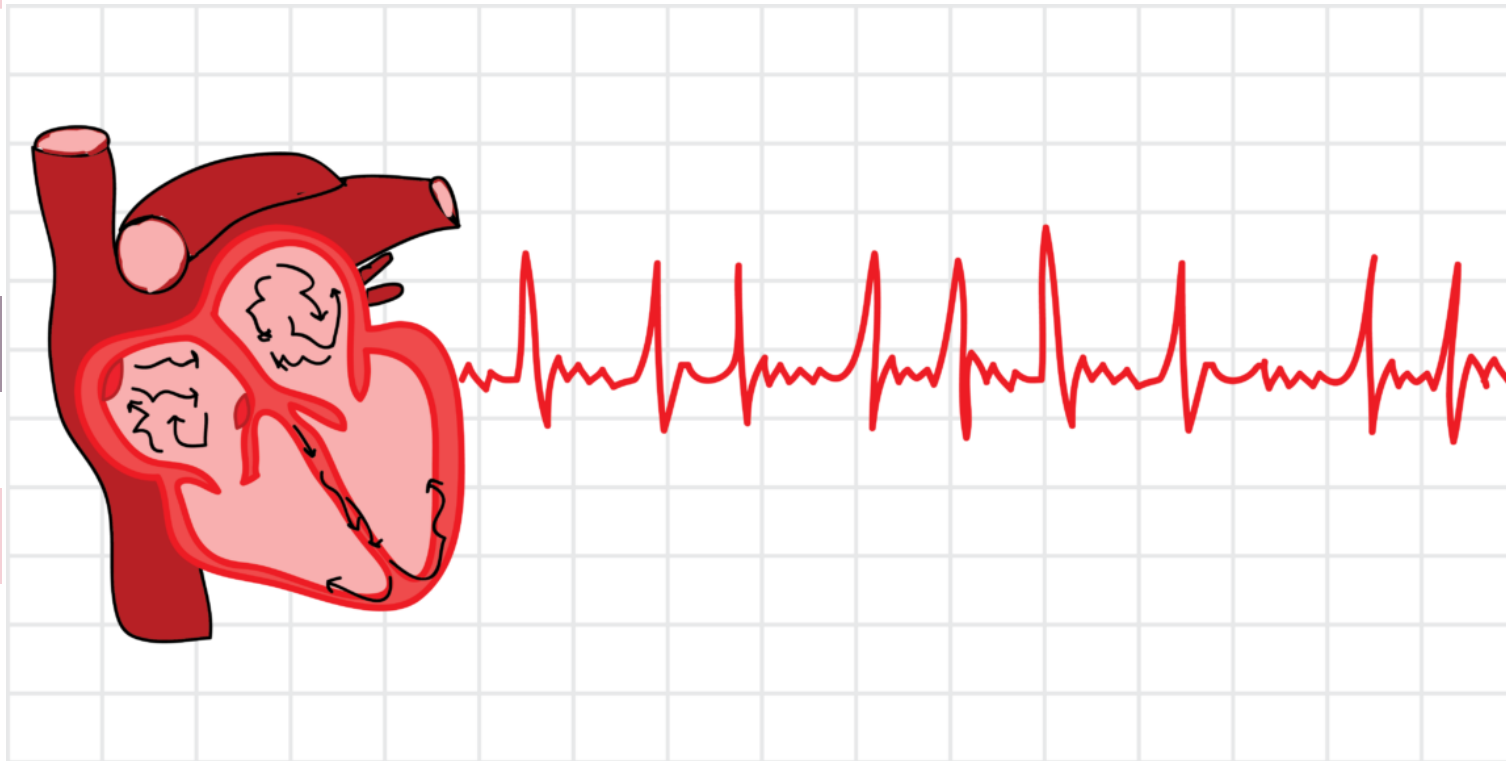
IgE 197 kU/L (<100)

# TROMBOFILIA



**NEGATIVO**

# EVOLUCIÓN

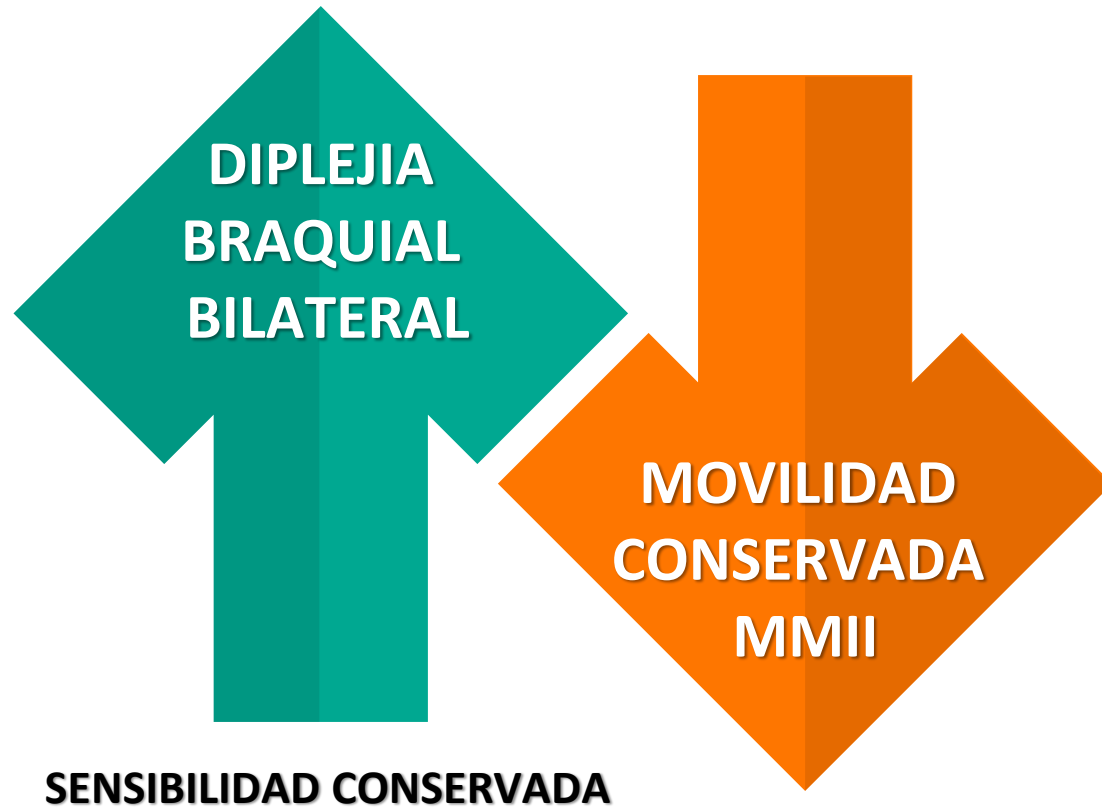


**ANTICOAGULACIÓN**

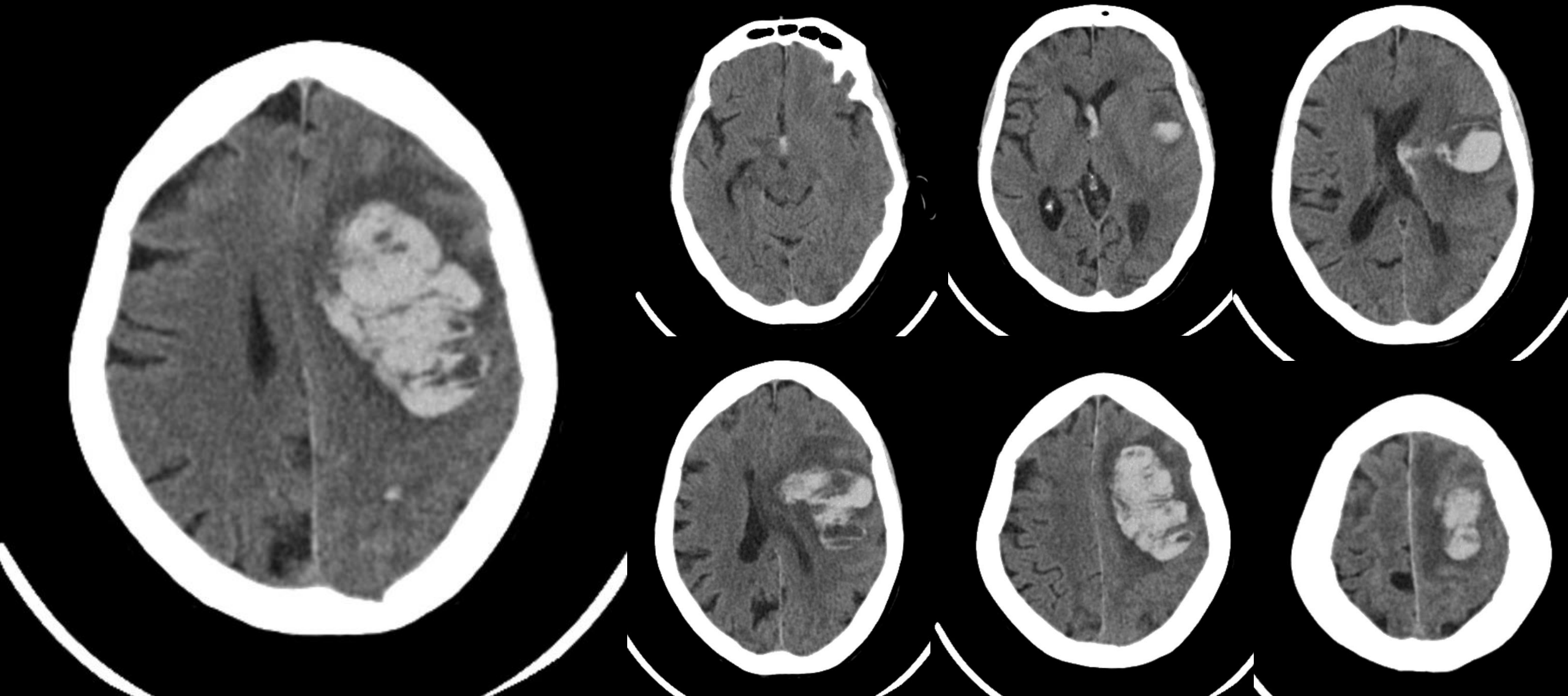




# Evolución: **Síndrome del hombre en barril**



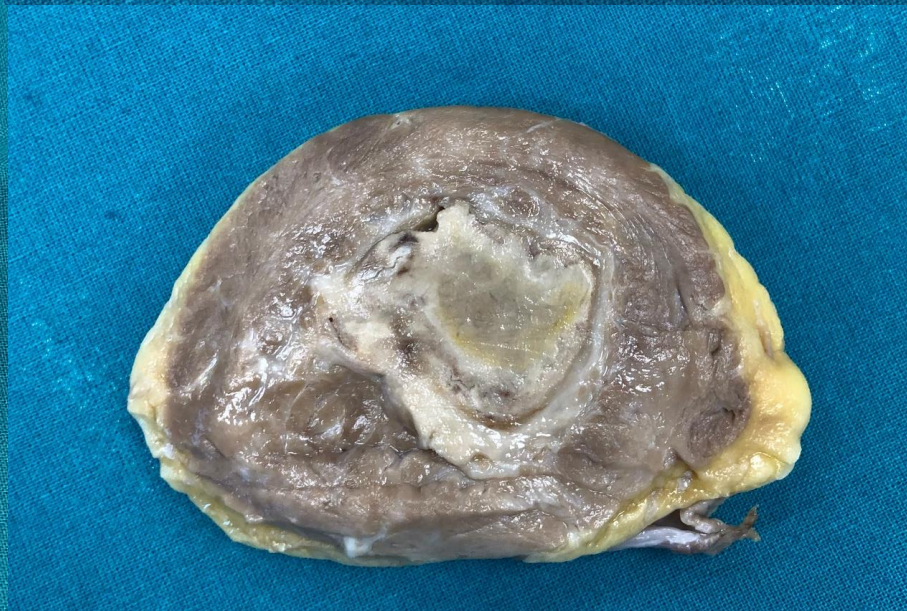
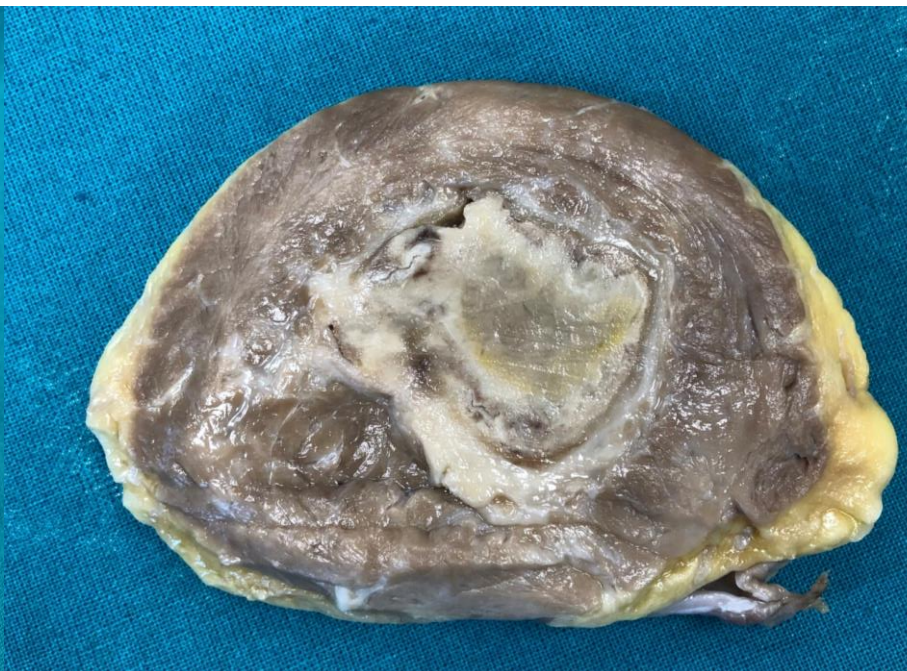
# EVOLUCIÓN

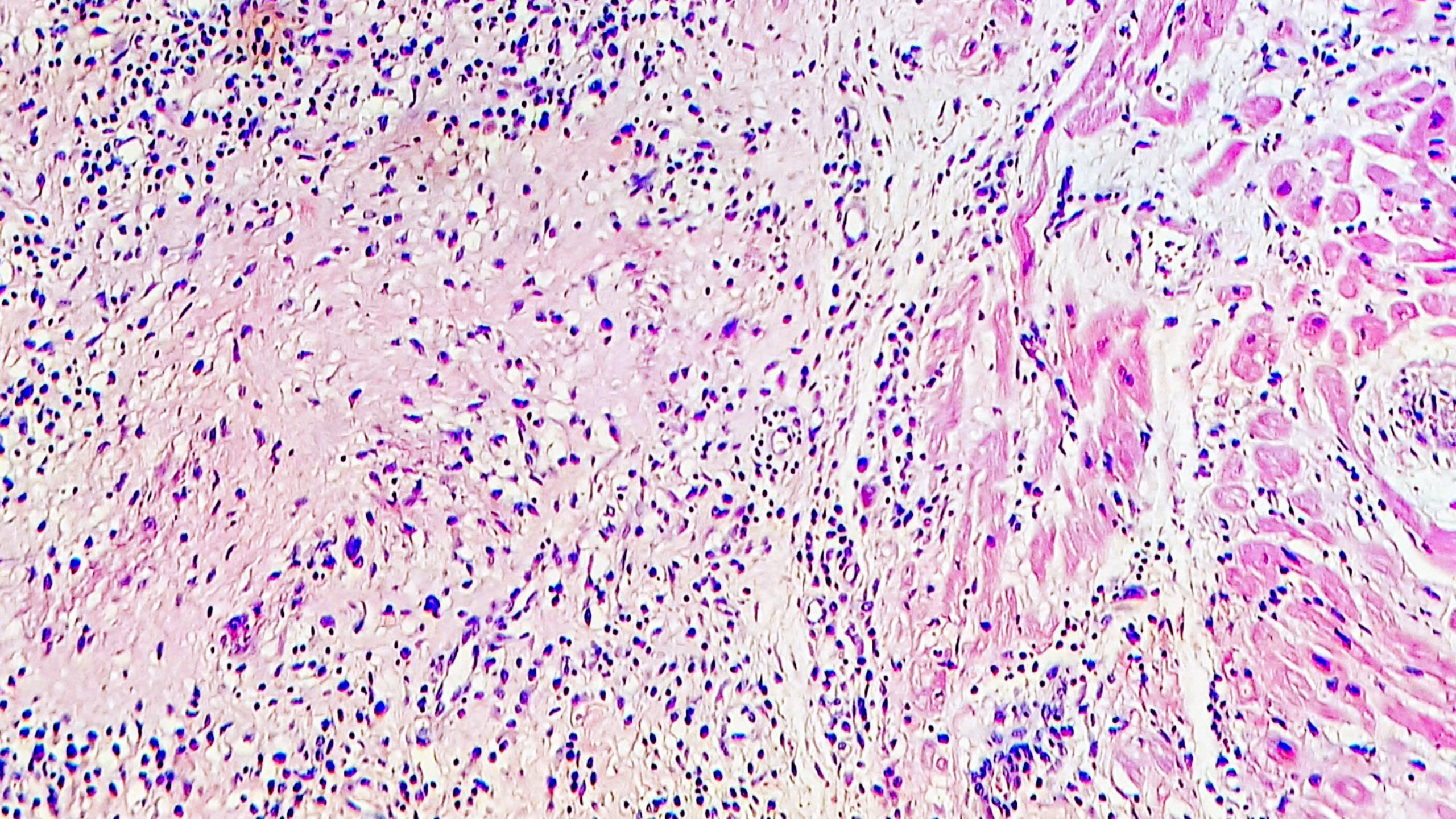


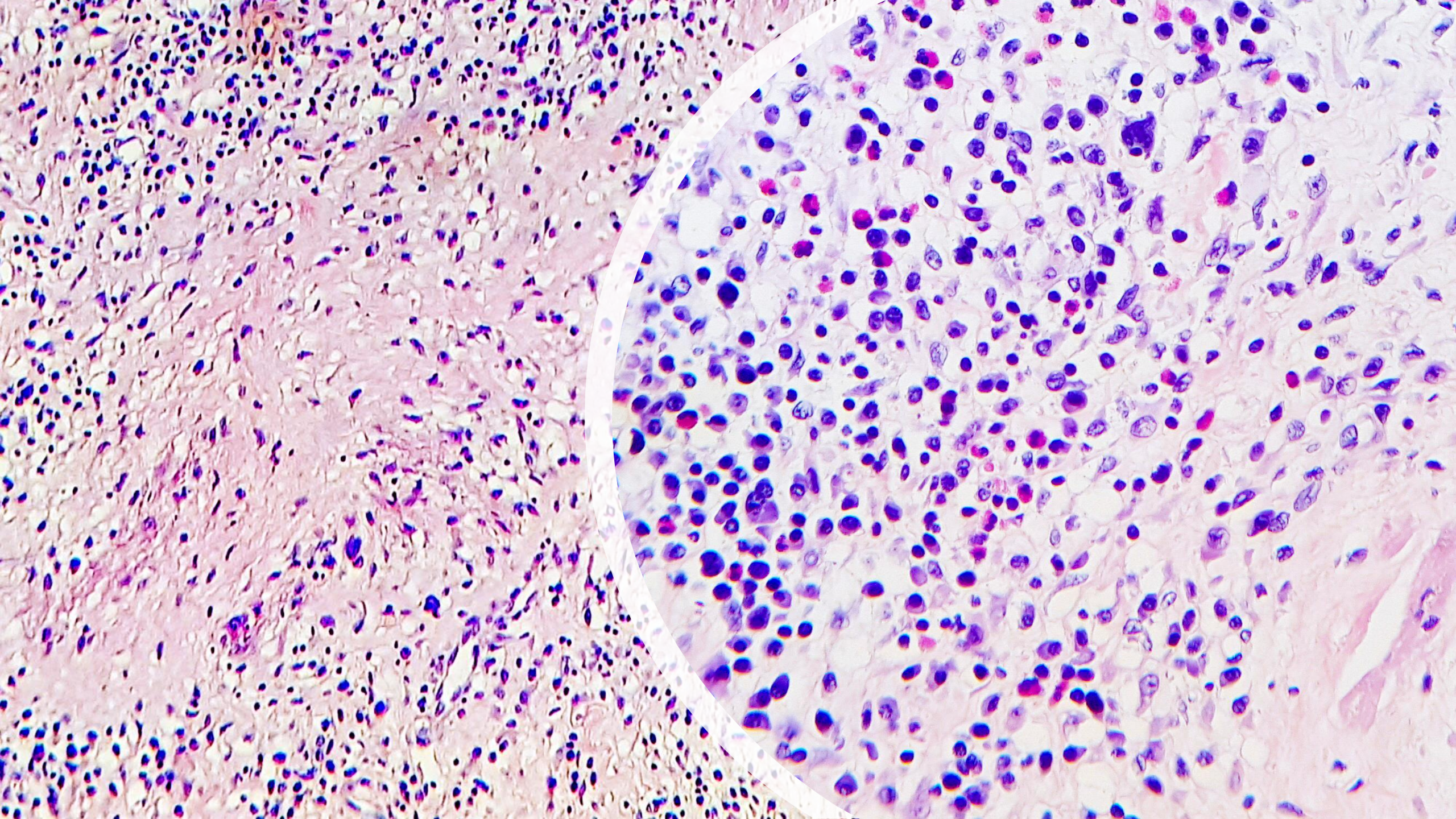
# EVOLUCIÓN

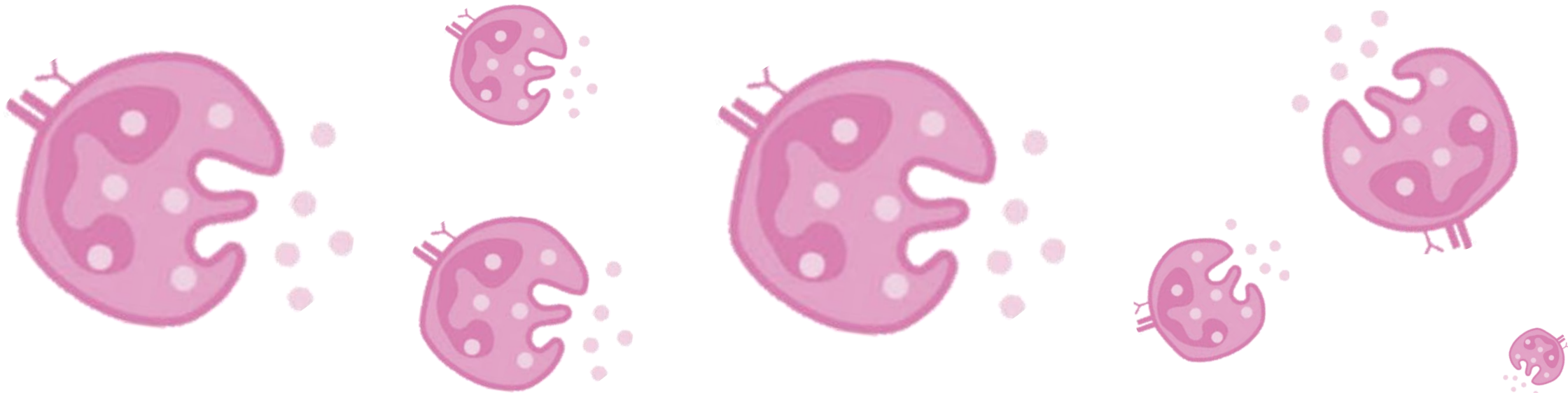


 **AUTOPSY**

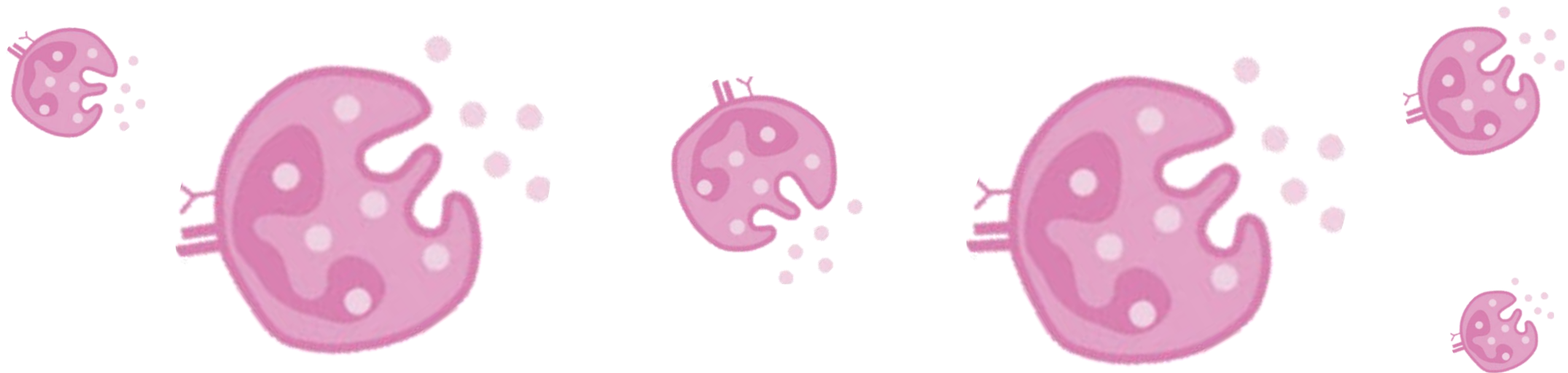




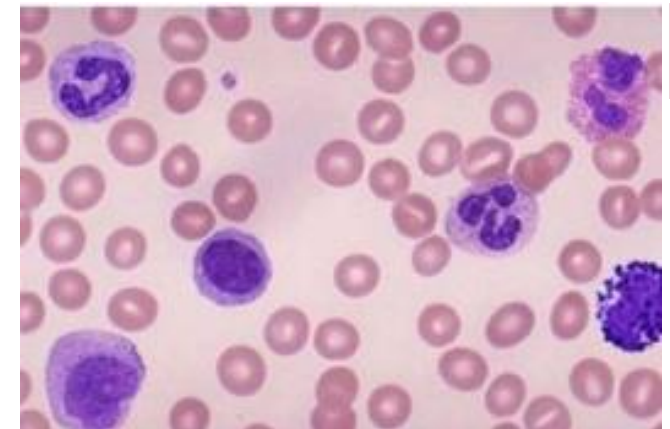
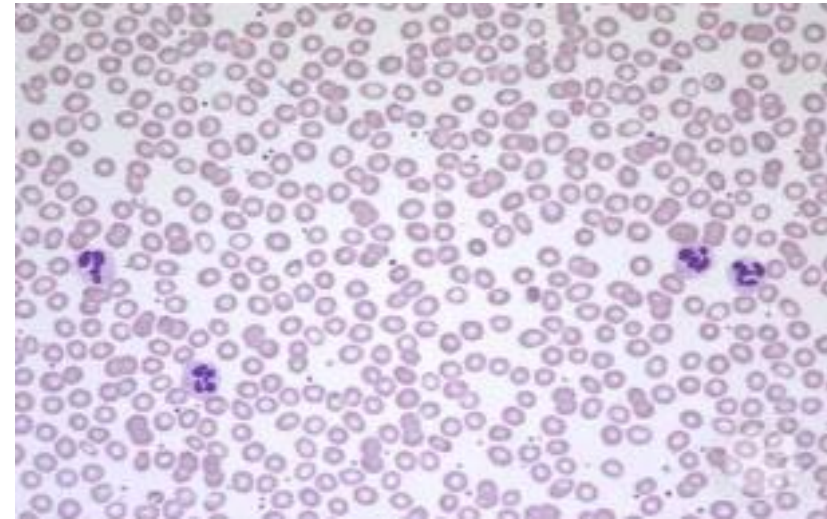
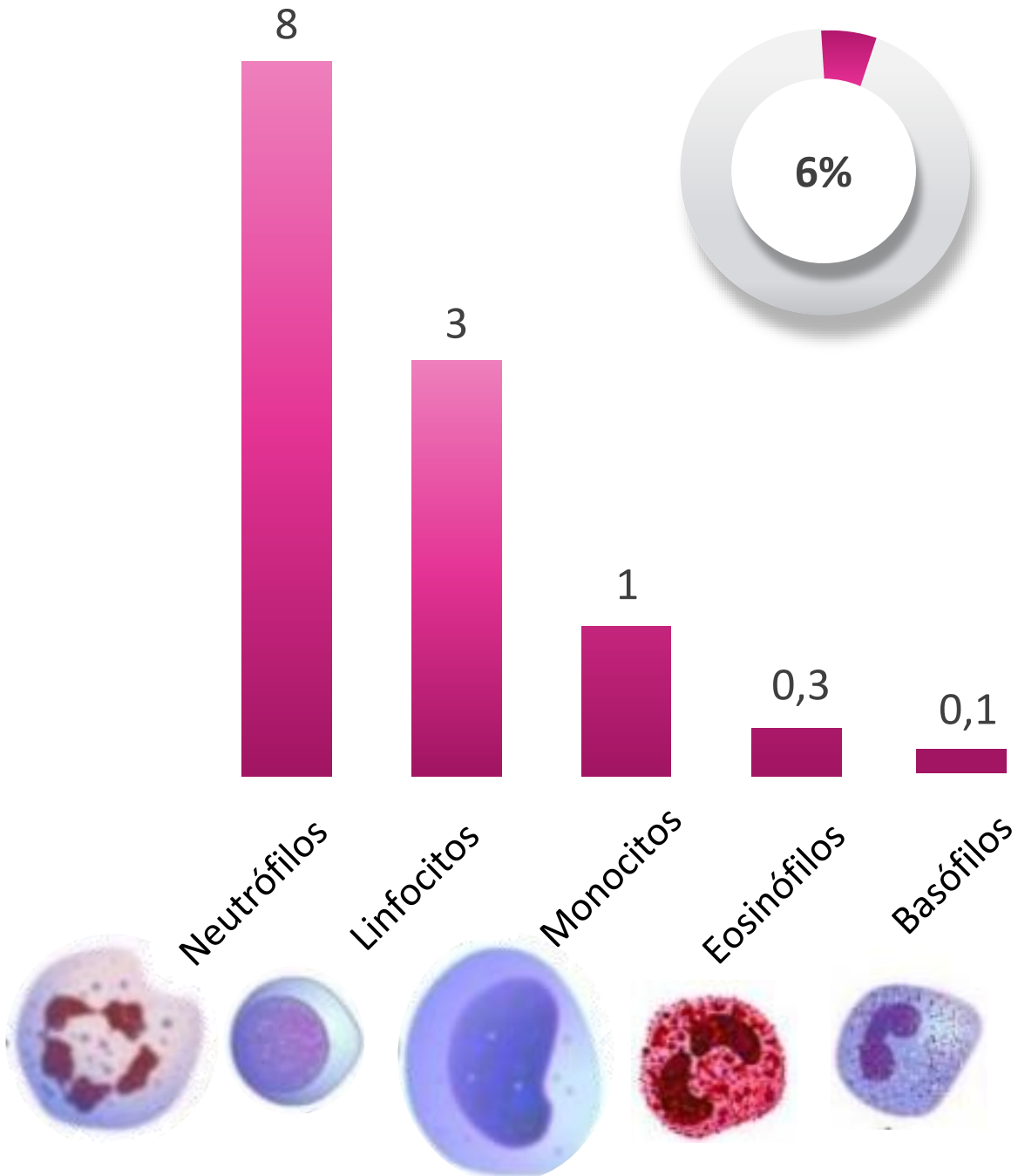




S í n d r o m e  
h i p e r e o s i n o f í l i c o

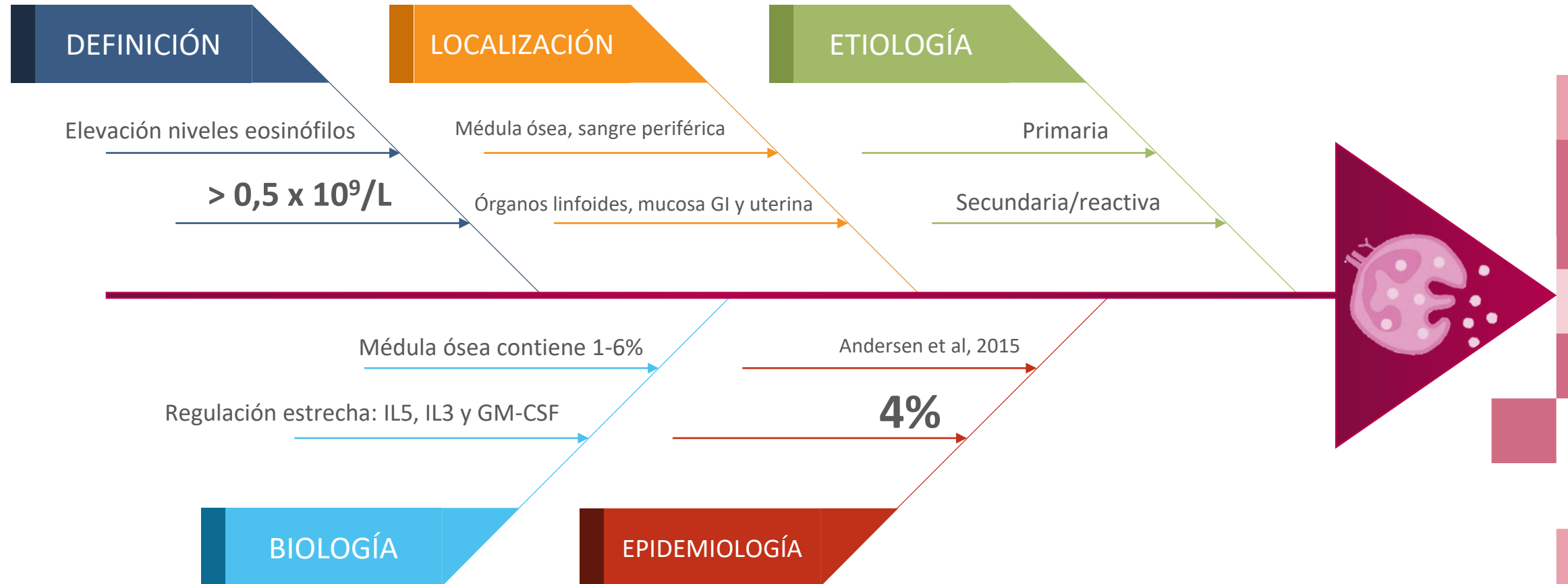


# RECuento LEUCOCITARIO



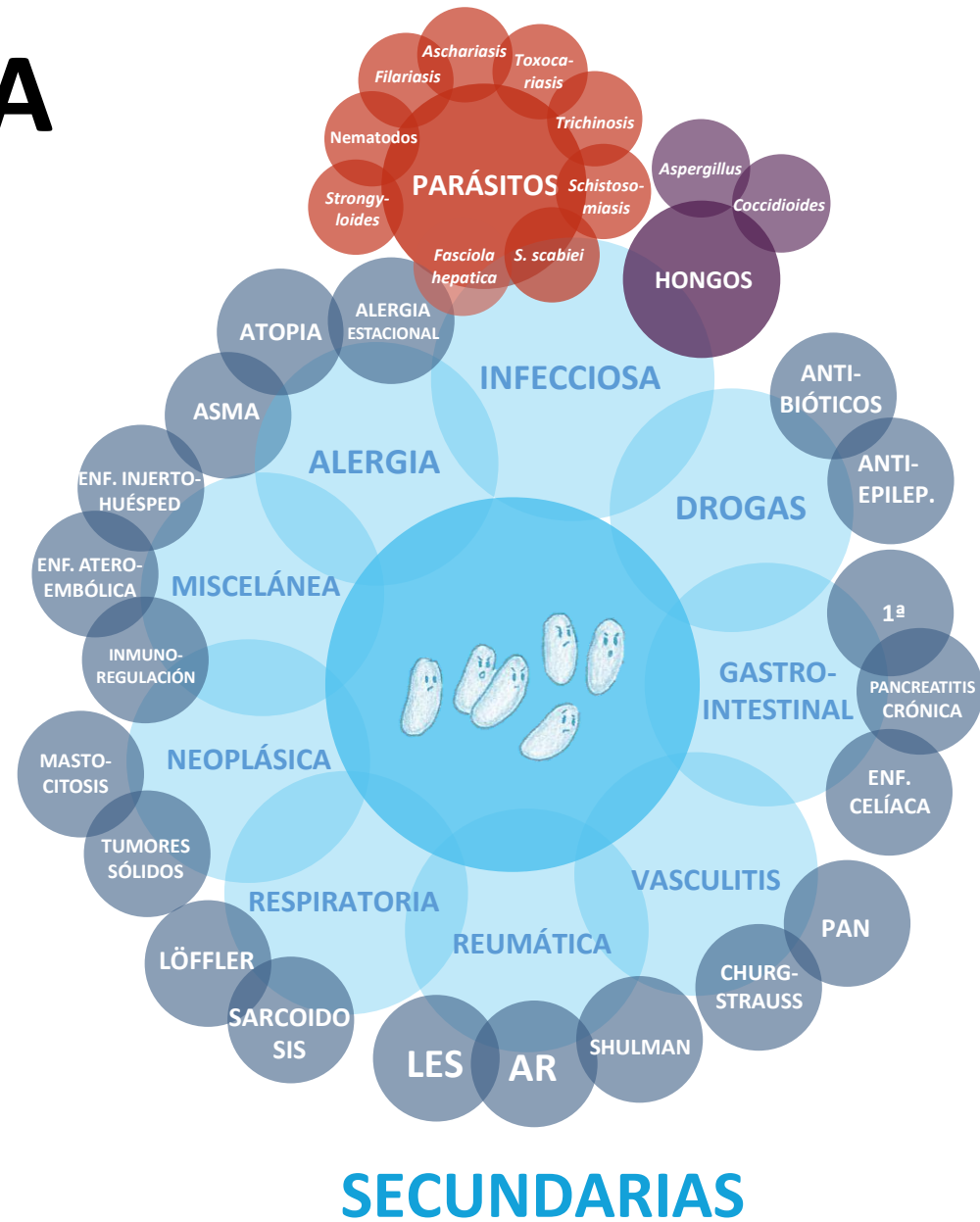
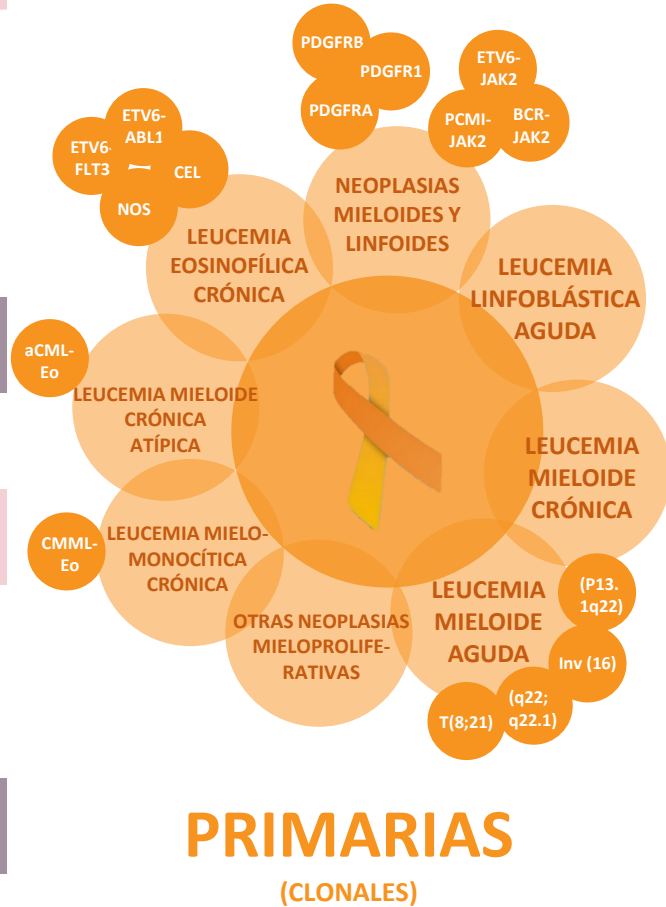


# EOSINOFILIA





# ETIOLOGÍA



# DIAGNÓSTICO

Modificado de Guideline for the investigation and management of eosinophilia. BJH 2017

3

2

1

3

## Si eosinofilia $> 1,5 \times 10^9 /L \rightarrow$ descartar causas 2<sup>as</sup>

Si sospecha **etiología alérgica:**

- IgE total en suero
- IgE específica para alérgenos
- Prick-test



Si sospecha **etiología dermatológica** no alérgica: biopsia cutánea

Si sospecha **etiología infecciosa:**

- Examen en fresco de heces en busca de huevos, quistes y parásitos
- Serologías de parásitos: *Strongyloides*, *Schistosoma*, *Filaria*, toxocariasis
- Considerar VIH o HTLV-1 en pacientes con infecciones oportunistas



Si sospecha **etiología gastrointestinal:**

- Gastroscopia, cápsula endoscópica, colono o sigmoidoscopia
- Amilasa sérica
- Serología para enfermedad celíaca (antitransglutaminasa)



Si sospecha **etiología reumática/vasculítica:**

- Anticuerpos antinucleares (ANA), anti DNA doble cadena, anti péptido cíclico citrulinado
- Anti citoplasma de neutrófilo (ANCA) y serología VHB, VHC, VIH, CMV y Parvovirus B19



Si sospecha **etiología respiratoria:** técnica de imagen + BAL/EBUS



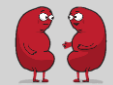
Si sospecha **etiología hematológica:**

- Técnica de imagen + biopsia tisular
- Inmunogenotipo células T y estudios de reordenamiento de genes del receptor de células T



Si no... quizá **miscelánea:**

- Test de enfermedad aterosclerótica
- Niveles de Ig y C1



2

## Si eosinofilia $0,5 - 1,5 \times 10^9/L$ y tests 1 normales

No se requieren más pruebas.

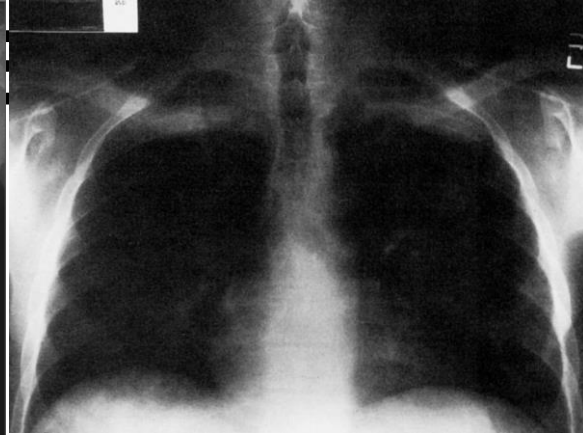
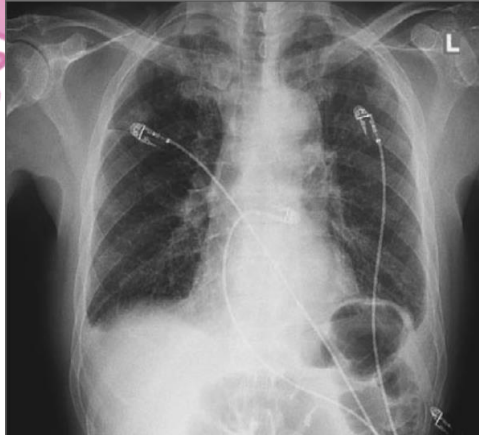
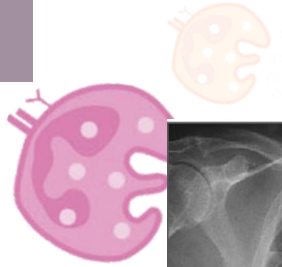


1

## En todos los casos

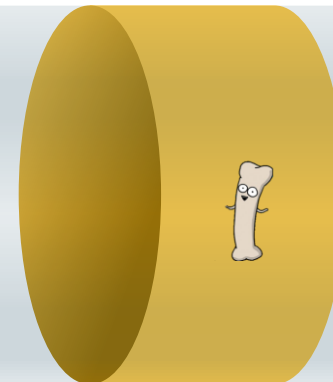
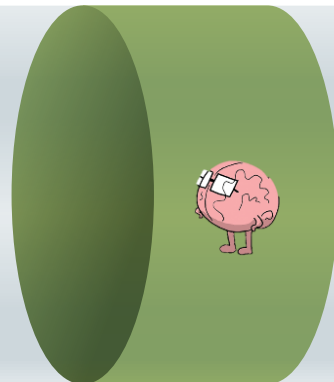
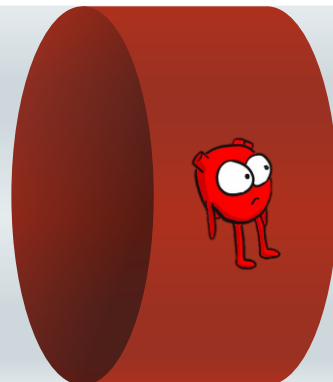
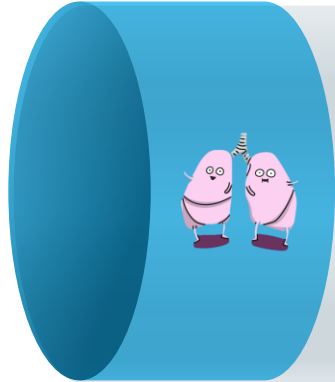
- Recuento sanguíneo y frotis
- Bioquímica sérica: VSG + PCR, función renal y hepática, perfil óseo, LDH y vit. B12





EDEMA, PRURITO,  
MASAS O NODULARES  
PAPULARES

**NEAS**



## REUMATOLÓGICAS

ARTRALGIA  
MIALGIAS

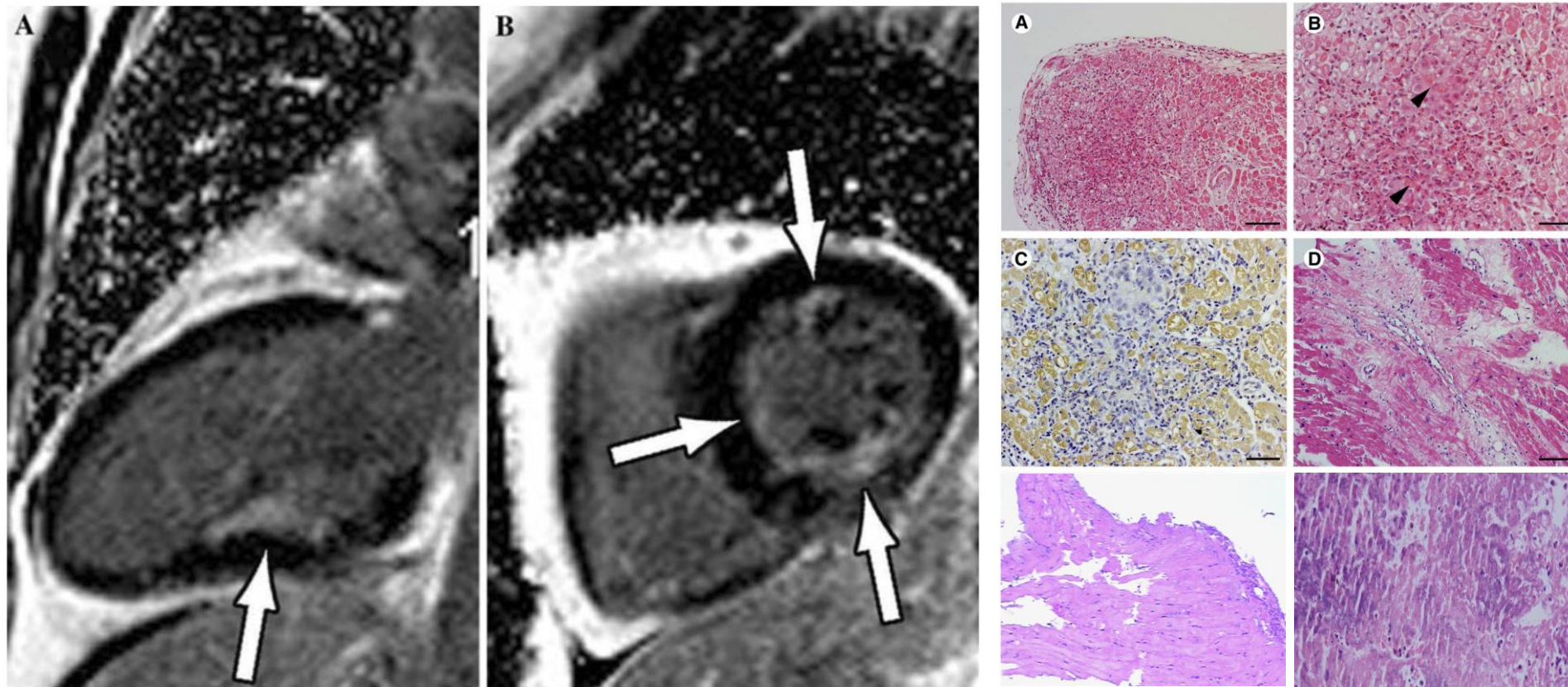
ARTRITIS  
RAYNAUD

## GASTROINTESTINALES

DIARREA, DISPEPSIA, DISFAGIA



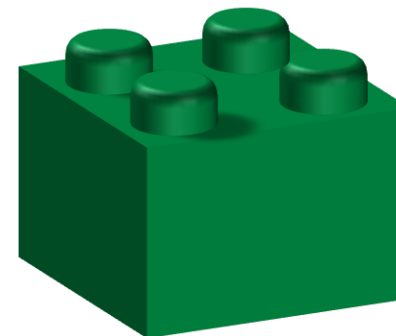
# MANIFESTACIONES CLÍNICAS CARDÍACAS



PRIMERAS SEMANAS

**MIOCARDITIS**

NECROSIS MIOCÁRDICA





# MANIFESTACIONES CLÍNICAS CARDÍACAS



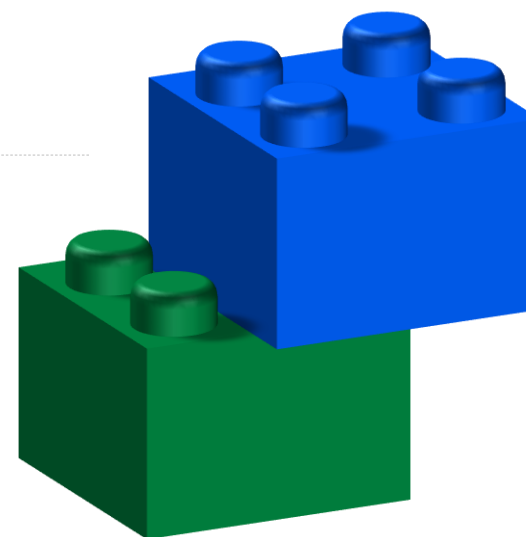
PRIMEROS MESES

**VALVULOPATÍAS**

PRIMERAS SEMANAS

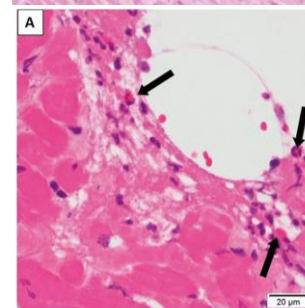
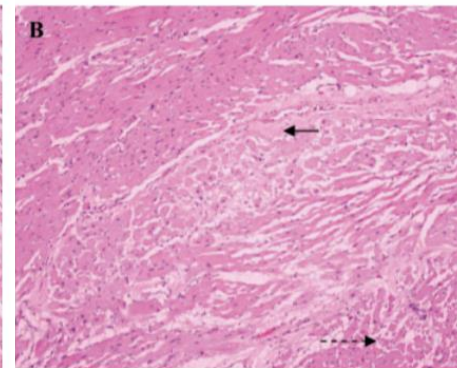
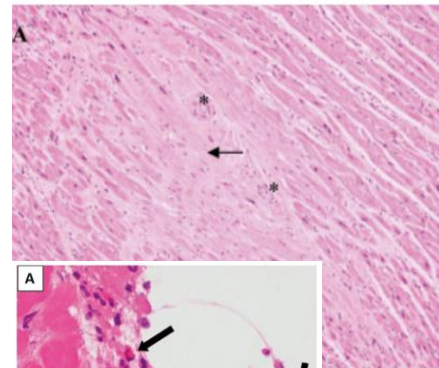
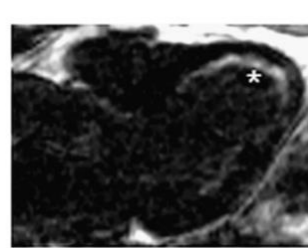
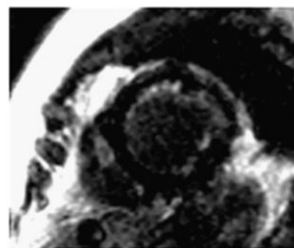
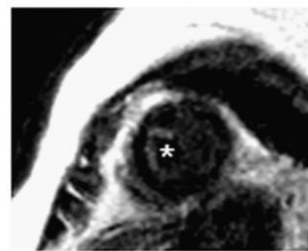
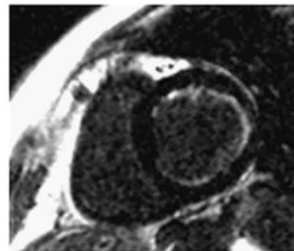
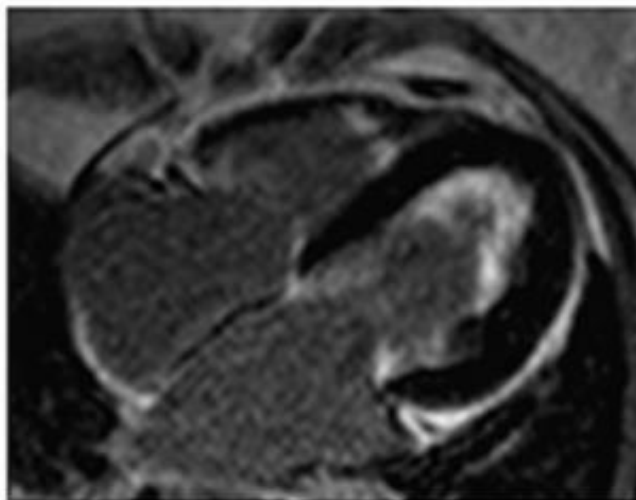
**MIOCARDITIS**

NECROSIS MIOCÁRDICA





# MANIFESTACIONES CLÍNICAS CARDÍACAS



PRIMEROS MESES

**FIBROSIS**

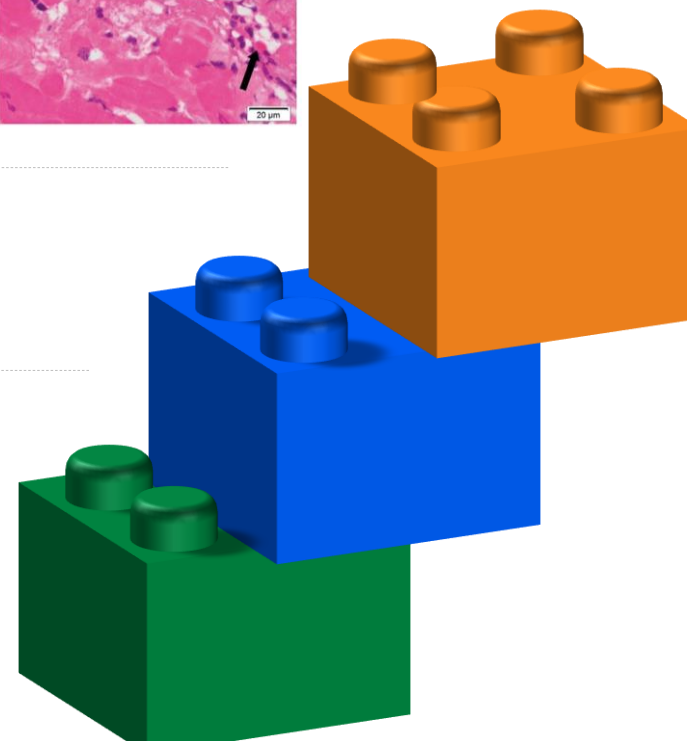
PRIMEROS MESES

**VALVULOPATÍAS**

PRIMERAS SEMANAS

**MIOCARDITIS**

NECROSIS MIOCÁRDICA





# MANIFESTACIONES CLÍNICAS CARDÍACAS



## LOEFFLER ENDOCARDITIS

ESTADÍOS FINALES

## FIBROSIS

PRIMEROS MESES

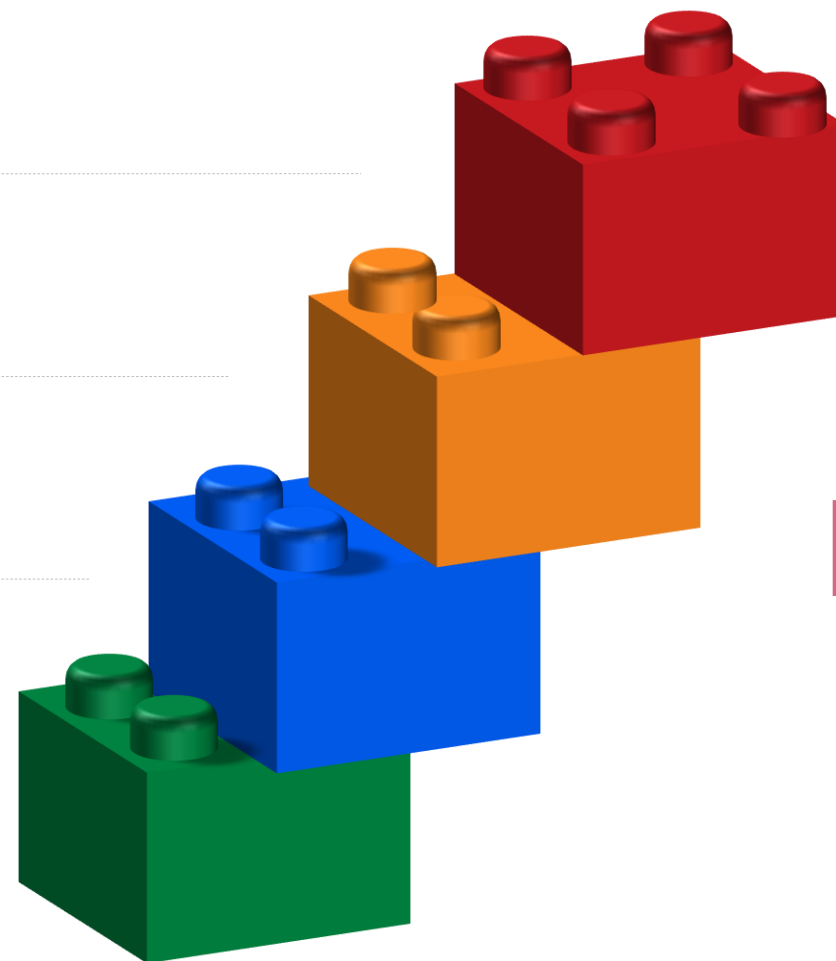
## VALVULOPATÍAS

PRIMEROS MESES

## MIOCARDITIS

PRIMERAS SEMANAS

NECROSIS MIOCÁRDICA







# MANIFESTACIONES CLÍNICAS CARDÍACAS



## TROMBO INTRACARDÍACO

ESTADÍOS FINALES

## LOEFFLER ENDOCARDITIS

ESTADÍOS FINALES

## FIBROSIS

PRIMEROS MESES

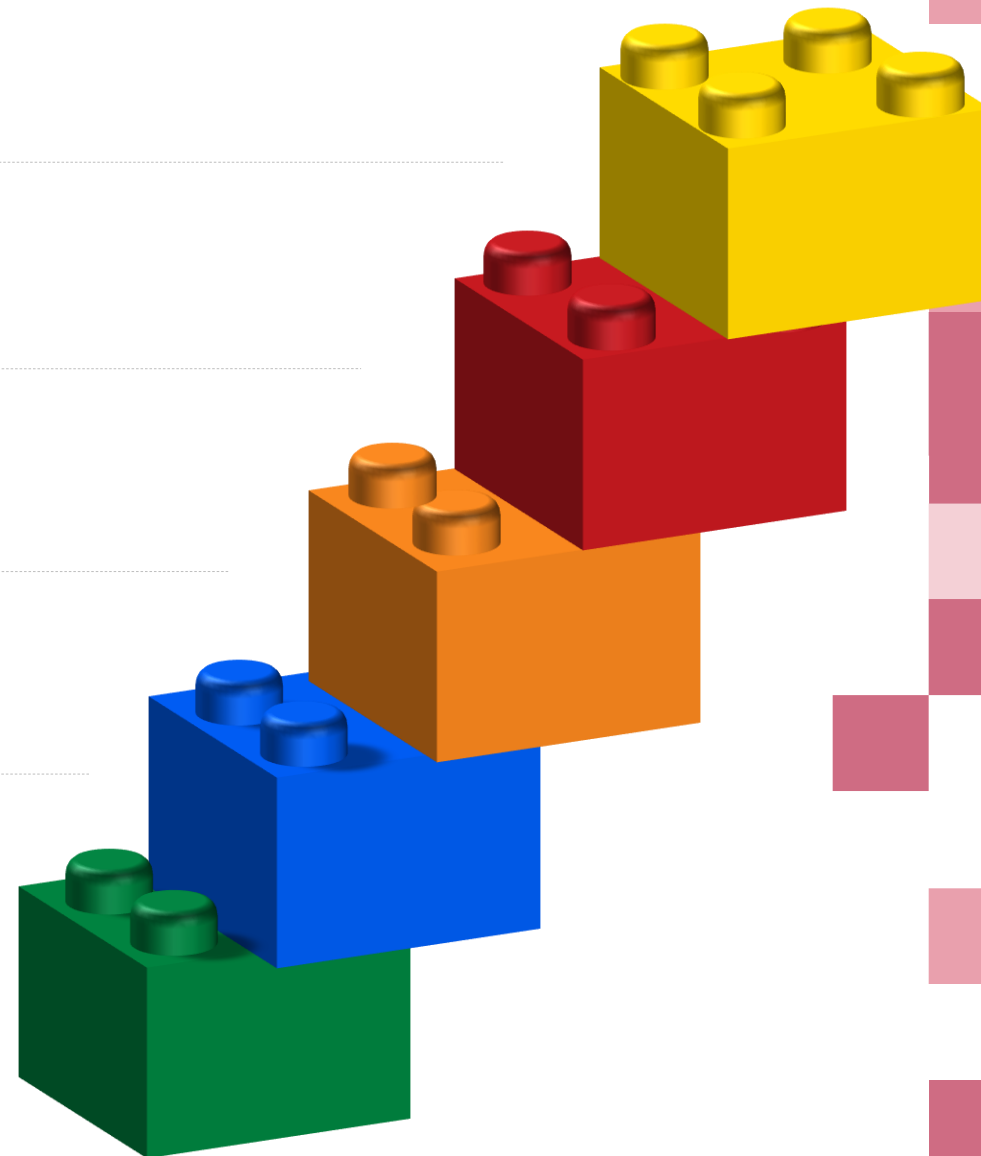
## VALVULOPATÍAS

PRIMEROS MESES

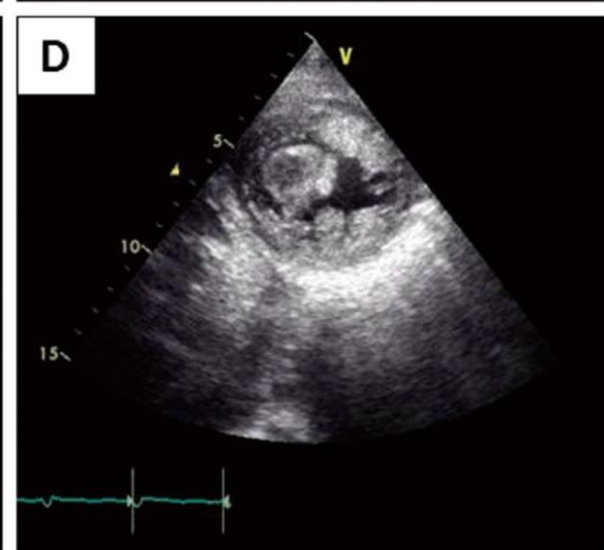
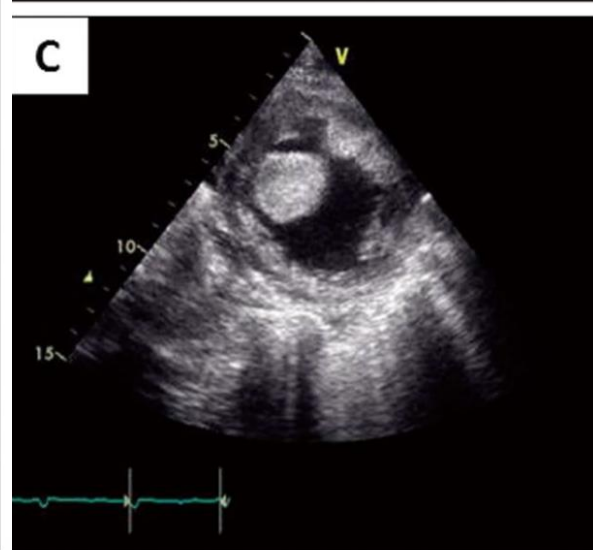
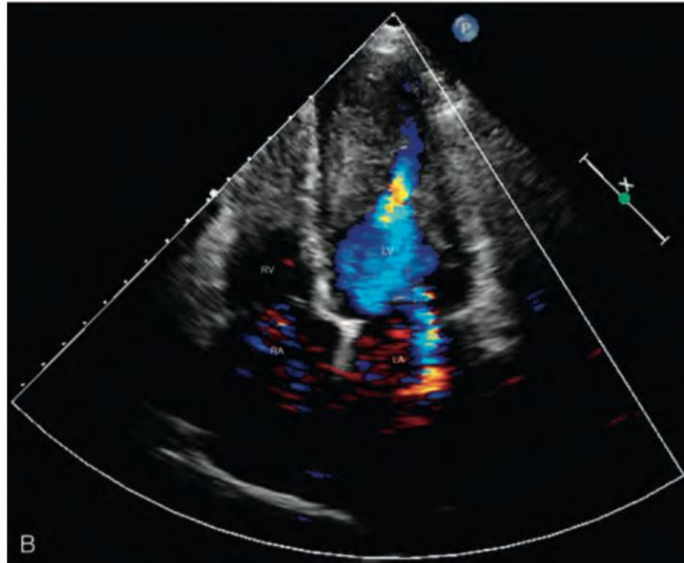
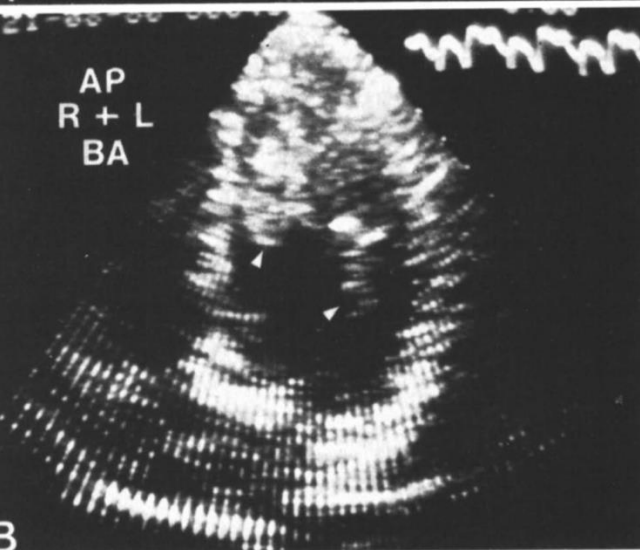
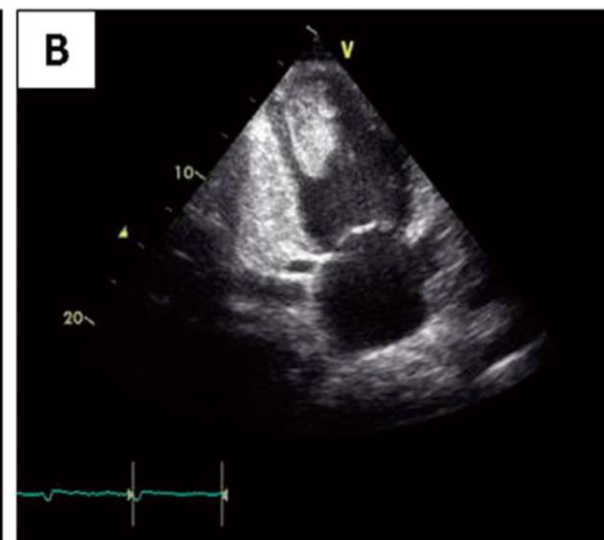
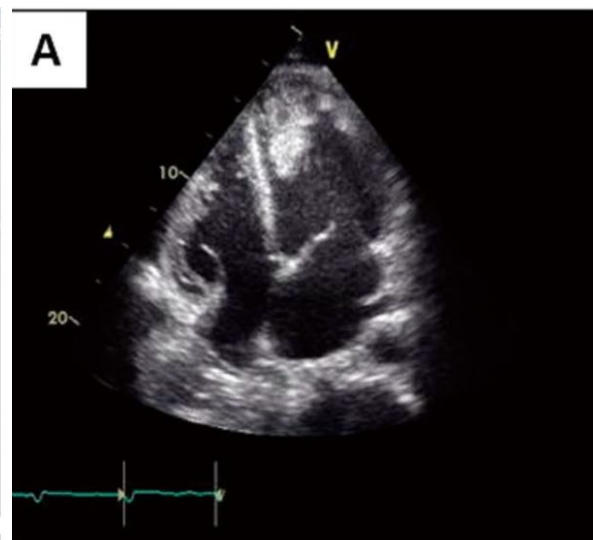
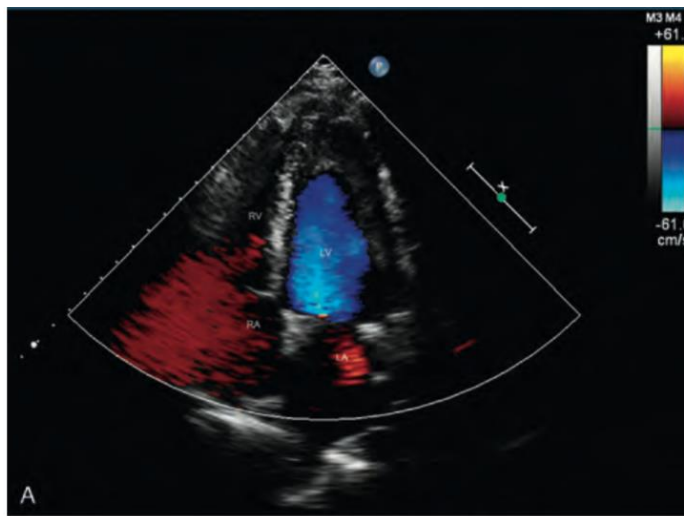
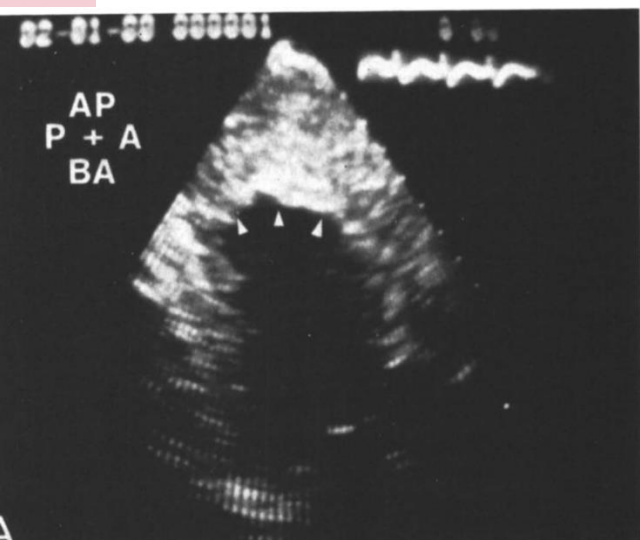
## MIOCARDITIS

PRIMERAS SEMANAS

NECROSIS MIOCÁRDICA

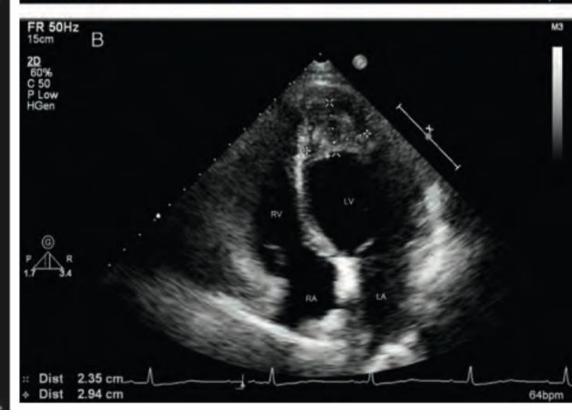
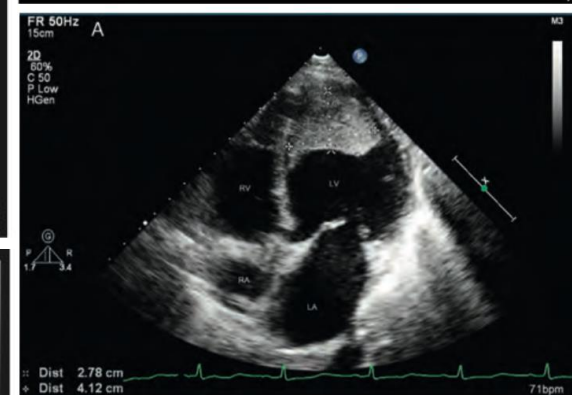
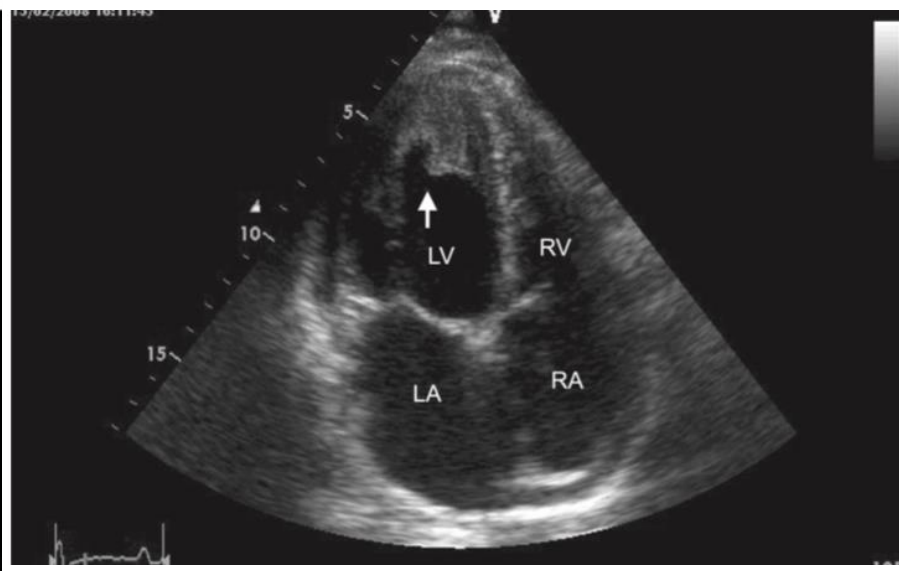
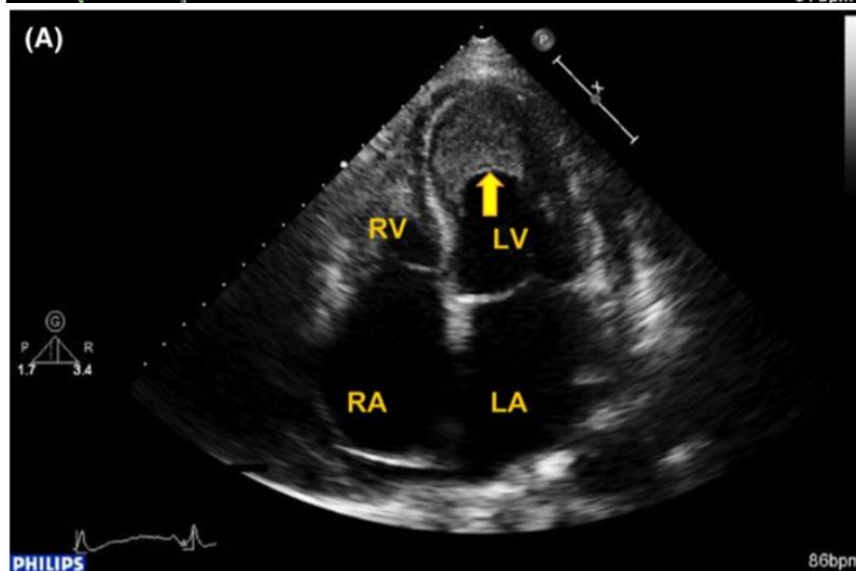
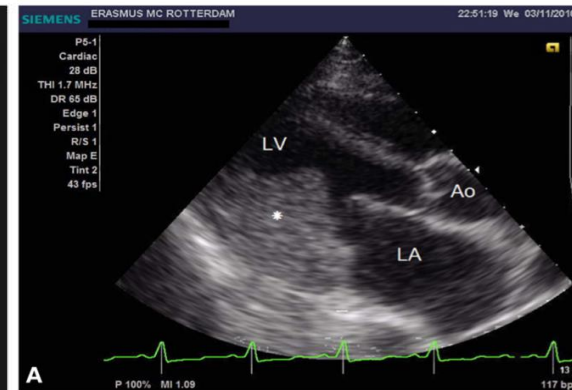
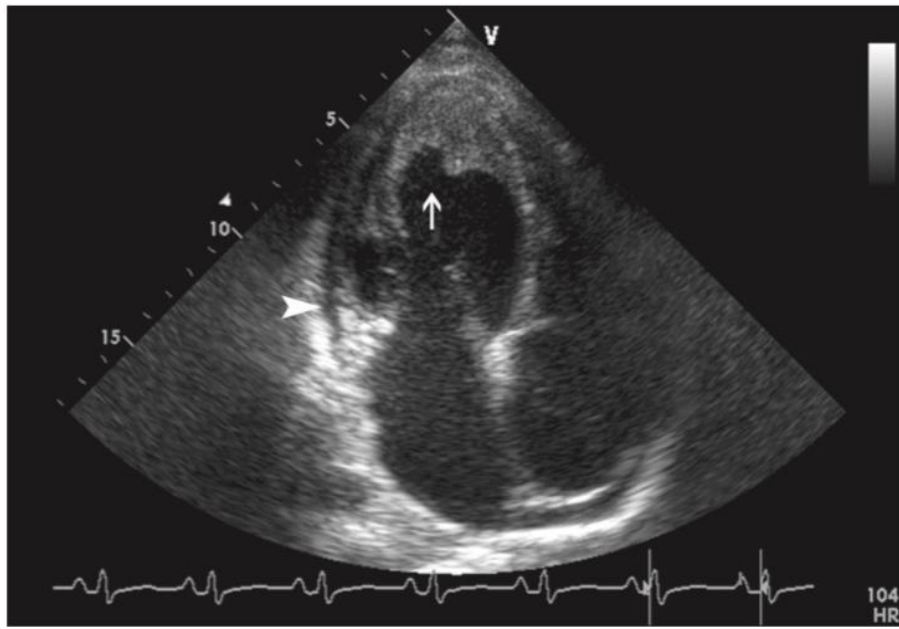
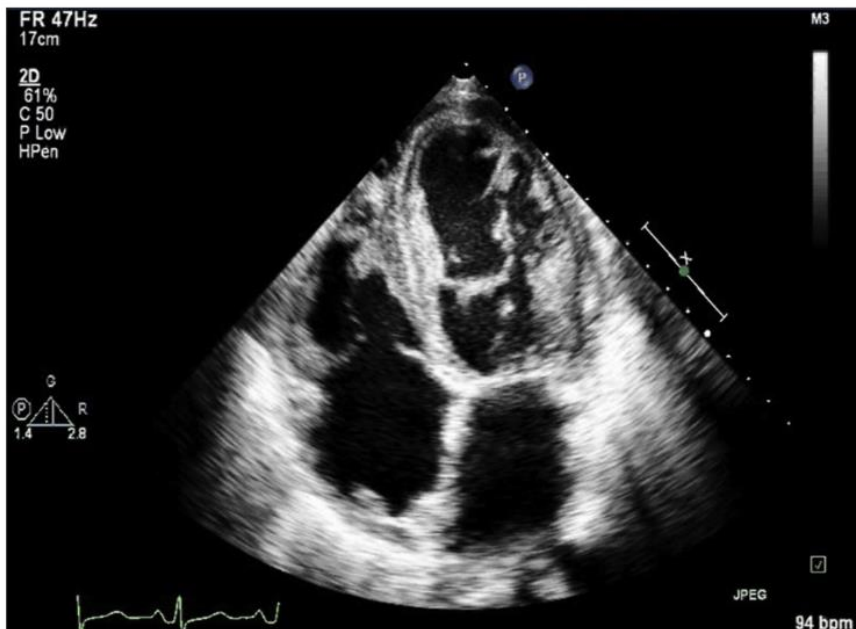


# MANIFESTACIONES CLÍNICAS CARDÍACAS



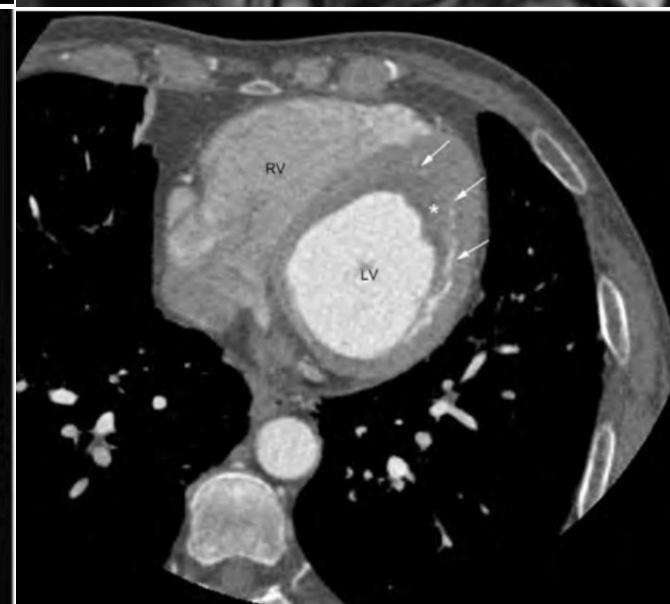
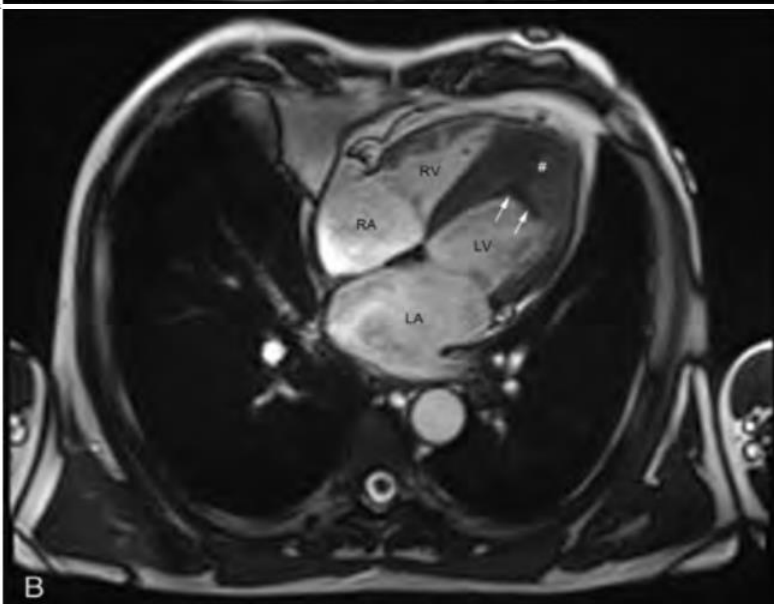
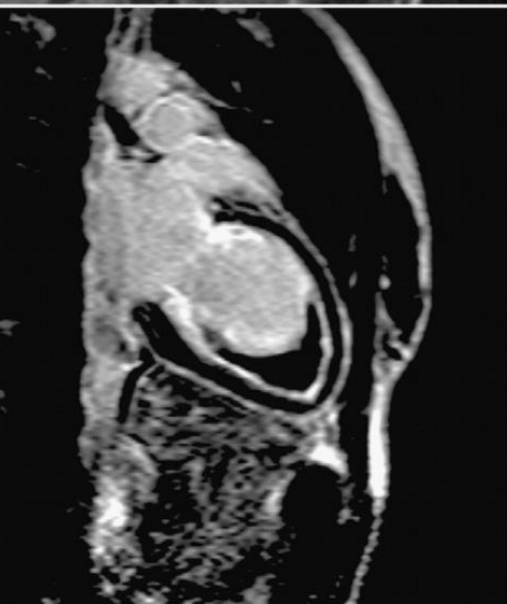
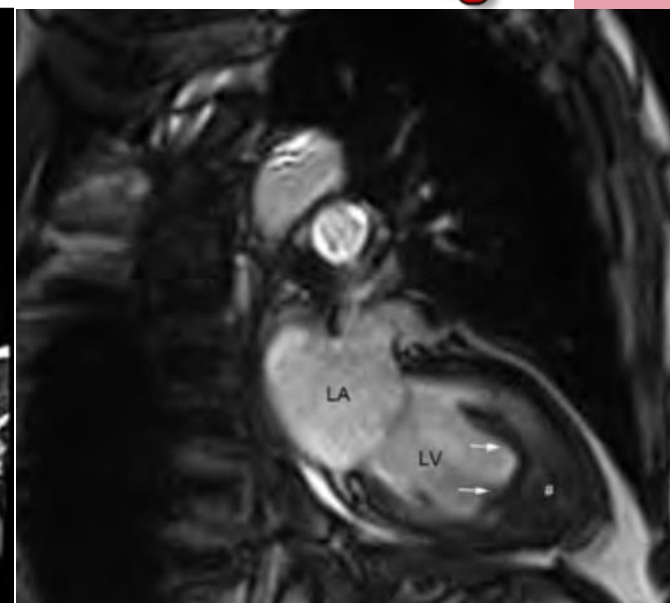
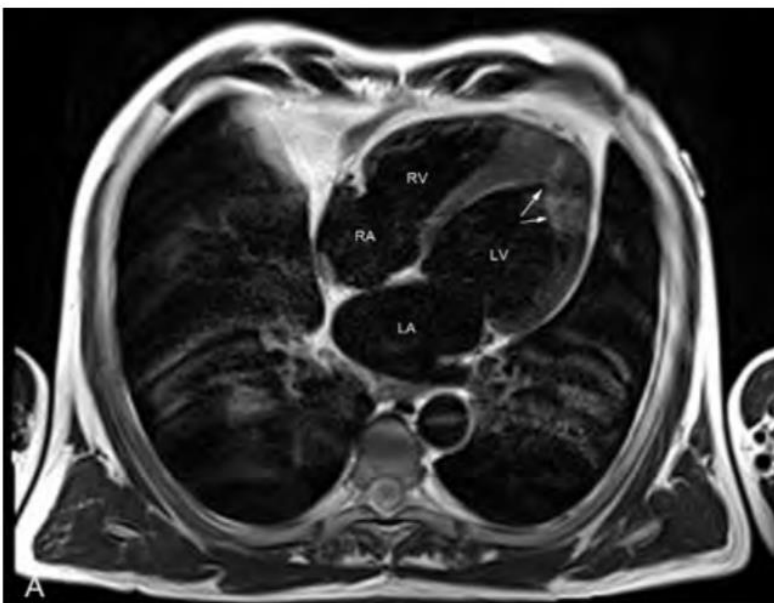
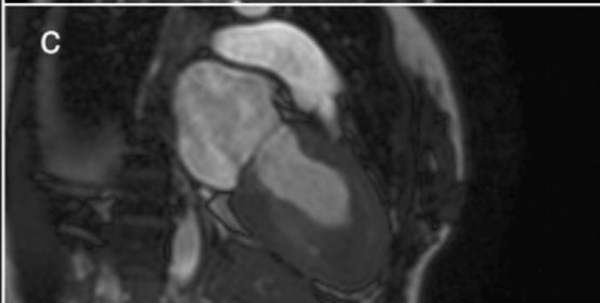
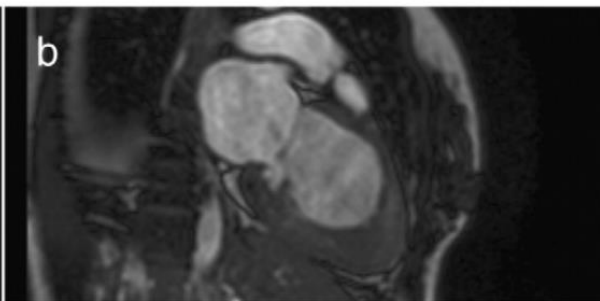
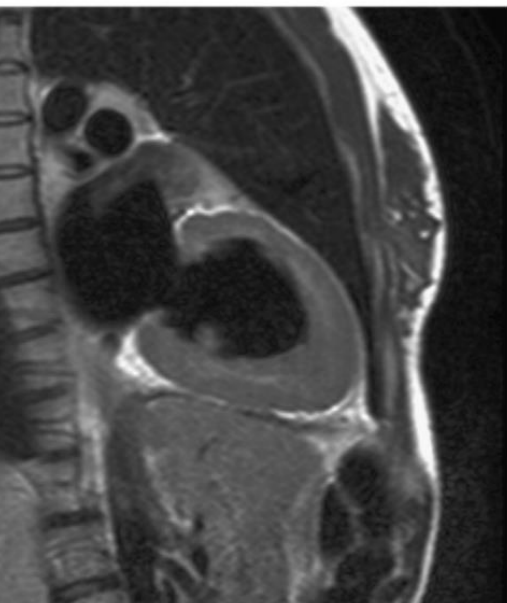


# MANIFESTACIONES CLÍNICAS CARDÍACAS





# MANIFESTACIONES CLÍNICAS CARDÍACAS



# MANIFESTACIONES CLÍNICAS NEUROLÓGICAS

ENCEFALOPATÍA

SDME.  
MOTONEURONA  
SUPERIOR

COGNITIVA

SENSITIVA

EMBÓLICO

MOTORA

NEUROPATÍAS  
PERIFÉRICAS

**TROMBOSIS CEREBRAL**

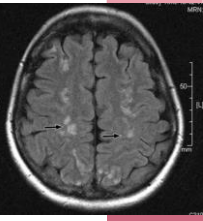
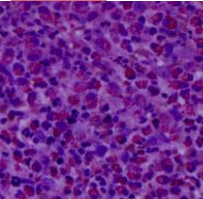
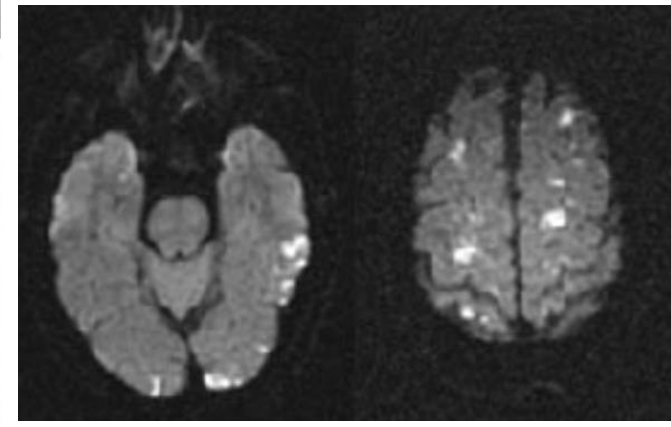
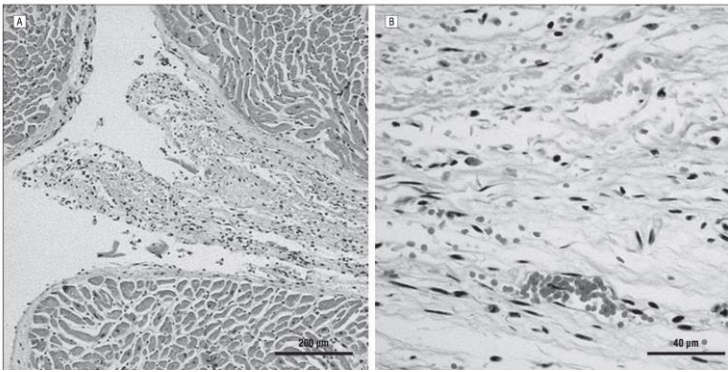
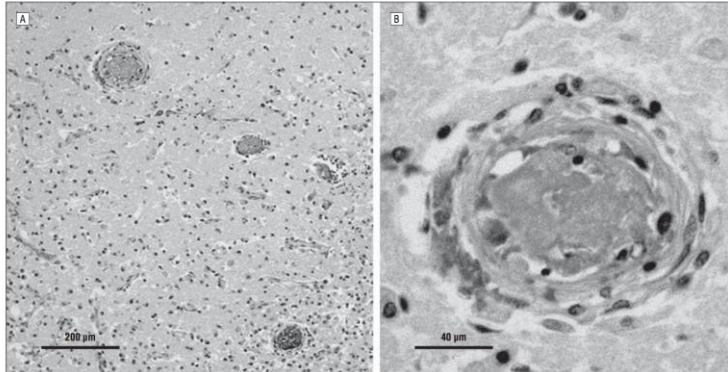
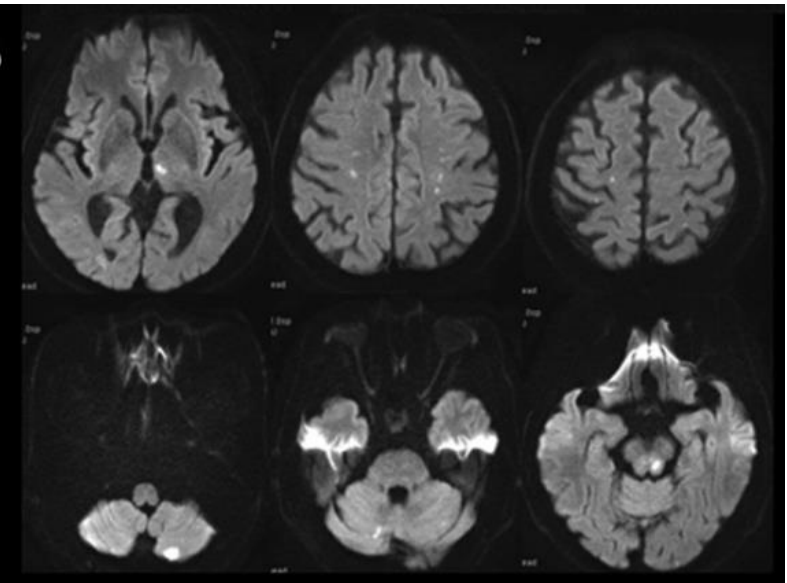
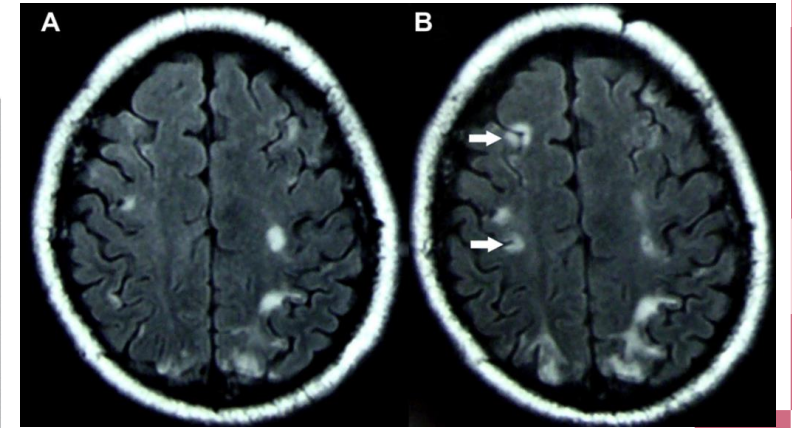
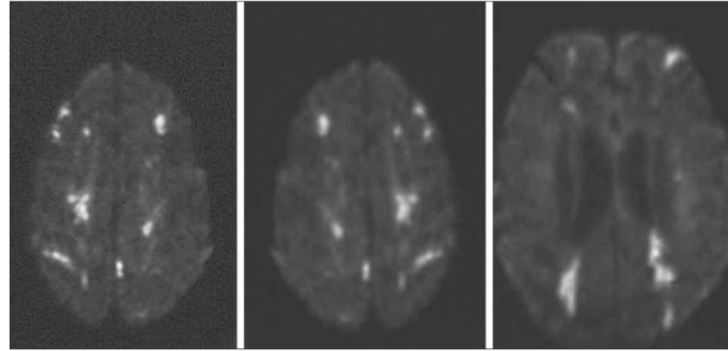
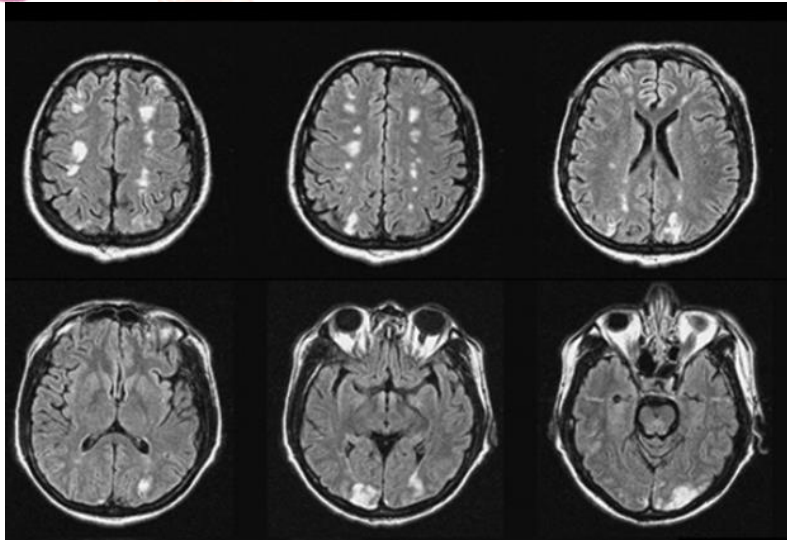
ISQUEMIA DE ORIGEN ARTERIAL Y TRANSITORIA

FORMACIÓN  
LOCAL



# MANIFESTACIONES CLÍNICAS

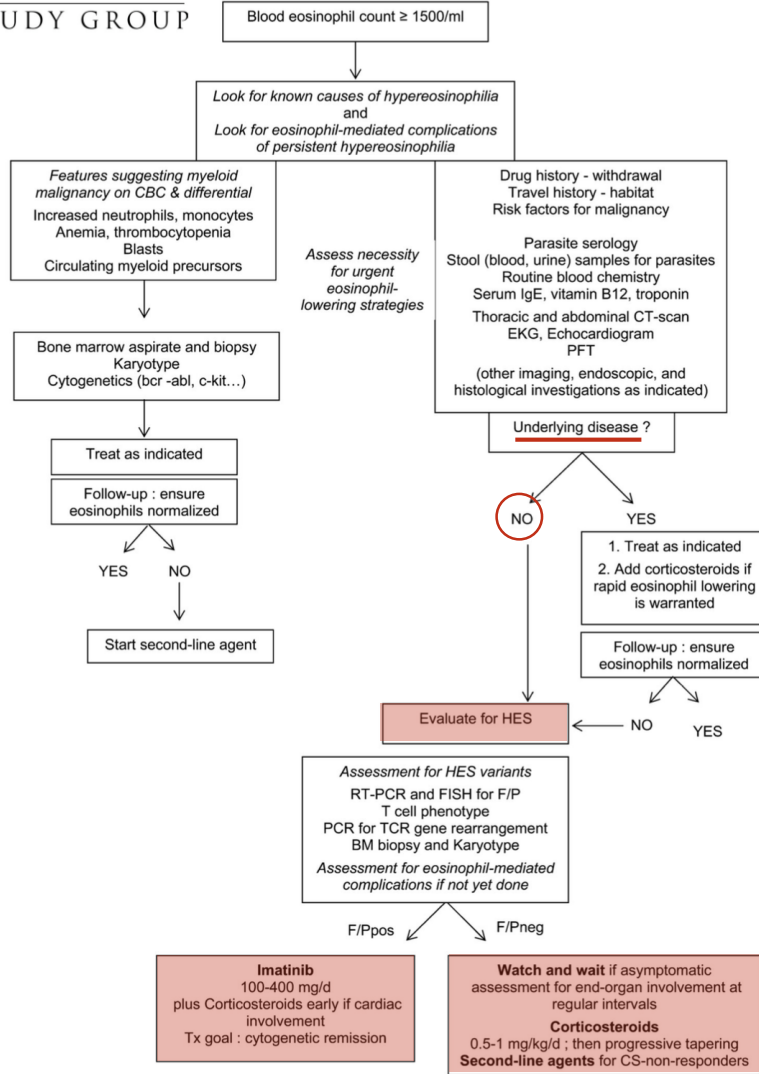
## TROMBOSIS CEREBRAL



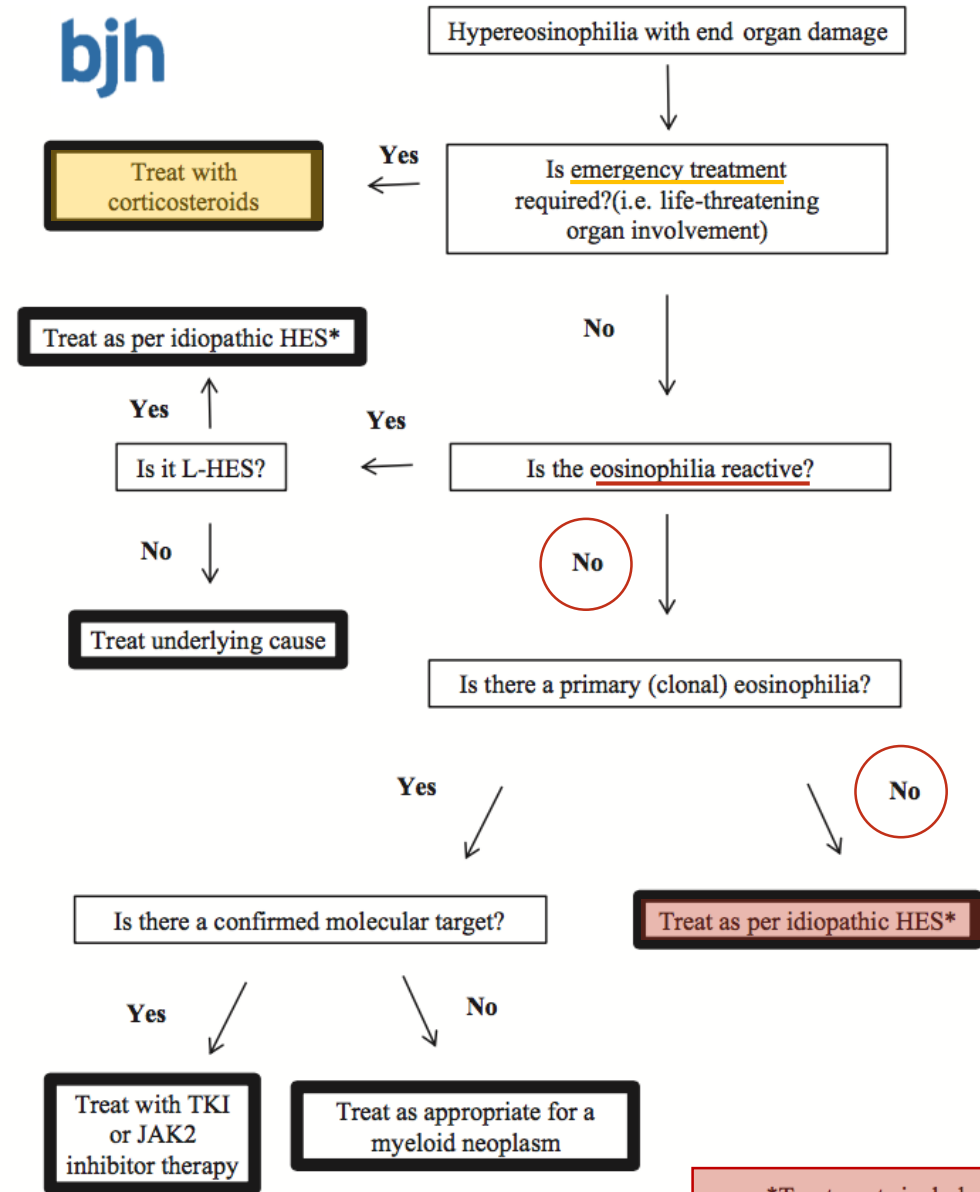


# TRATAMIENTO

NORDIC MPD  
STUDY GROUP

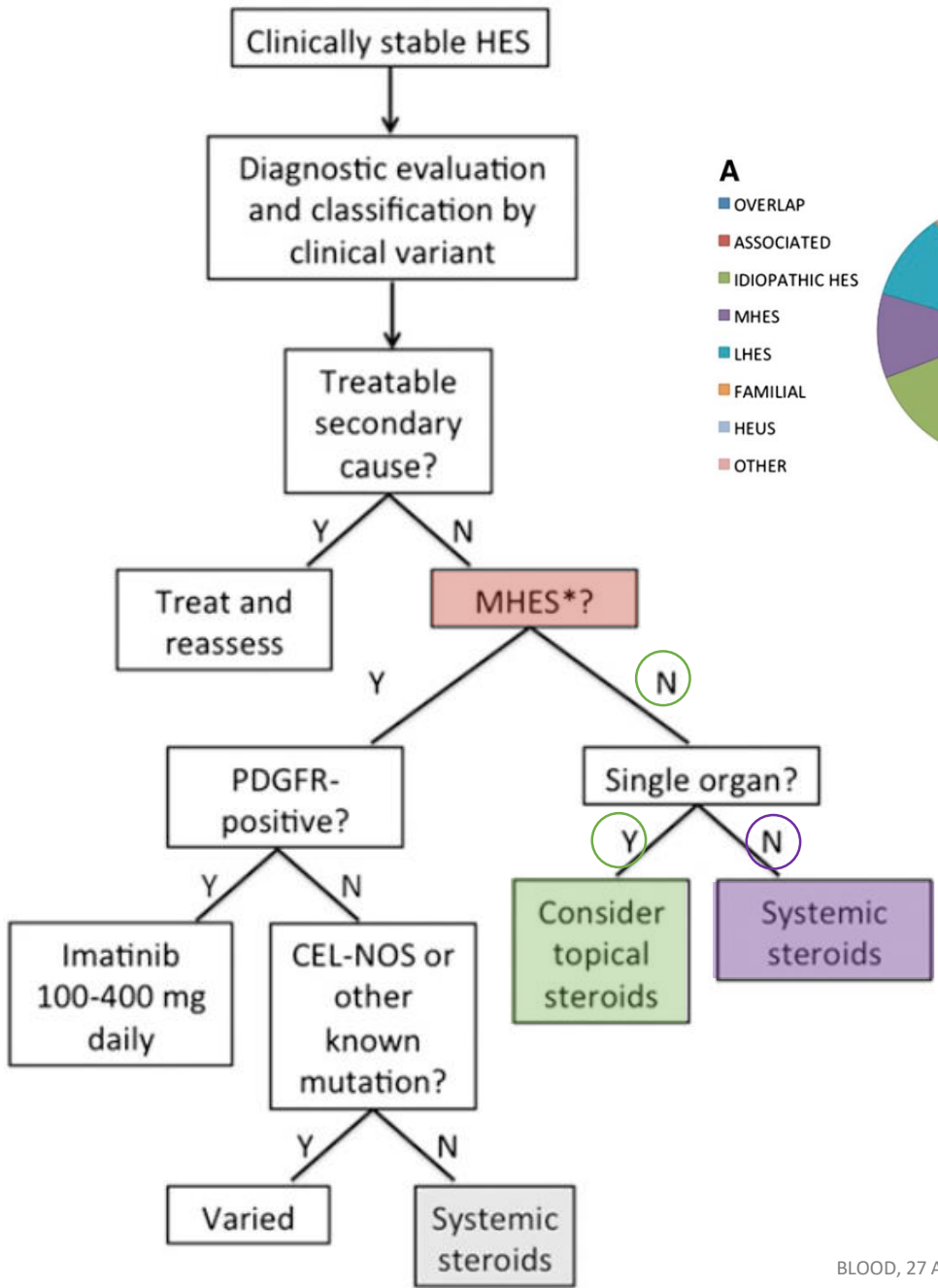


bjh

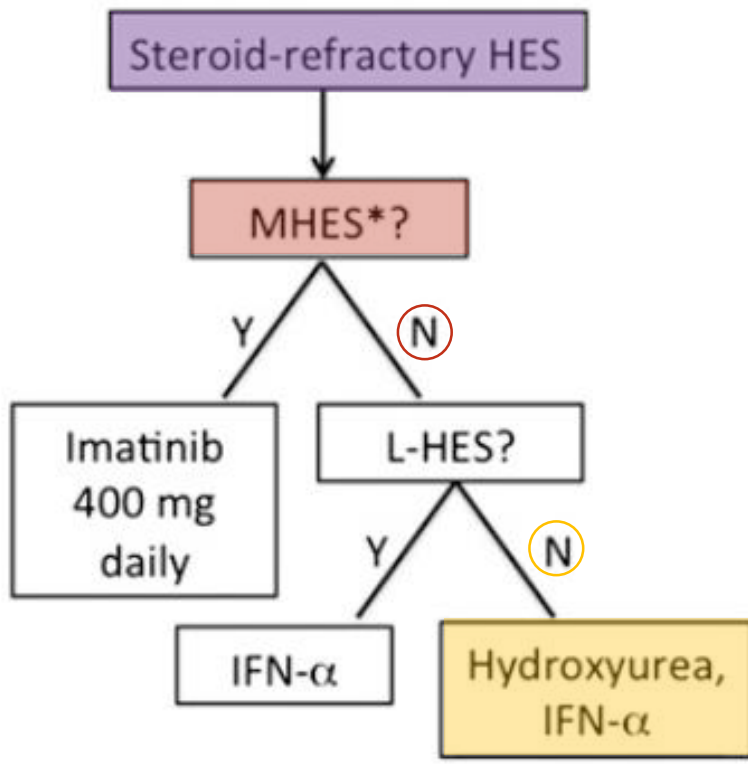
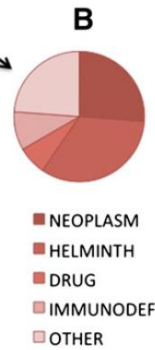
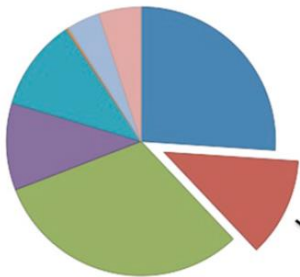


\*Treatments include corticosteroids, trial of TKI therapy, interferon, ciclosporin, azathioprine, hydroxycarbamide. See text for details.

# TRATAMIENTO



- A**
- OVERLAP
  - ASSOCIATED
  - IDIOPATHIC HES
  - MHES
  - LHES
  - FAMILIAL
  - HEUS
  - OTHER





# CONCLUSIONES

El síndrome hipereosinofílico es una entidad relativamente poco frecuente.

Su tratamiento se basa en inmunosupresores como son corticoides, inhibidores de la tirosinkinasa e hidroxiurea

Es un factor de riesgo cardiovascular inusual pero a tener en cuenta, que requiere una alta sospecha clínica.

Sus manifestaciones clínicas dependen del órgano diana afecto. Se debe llevar a cabo un examen minucioso para evaluarlas.

Se debe de tener en cuenta en el diagnóstico diferencial de las masas intracardíacas.

GRACIAS

