

# XXI Jornada de Residents: Taller d'ecografia

*GdT ecografía clínica ecoAP. CAMFIC*

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@ecoapcat



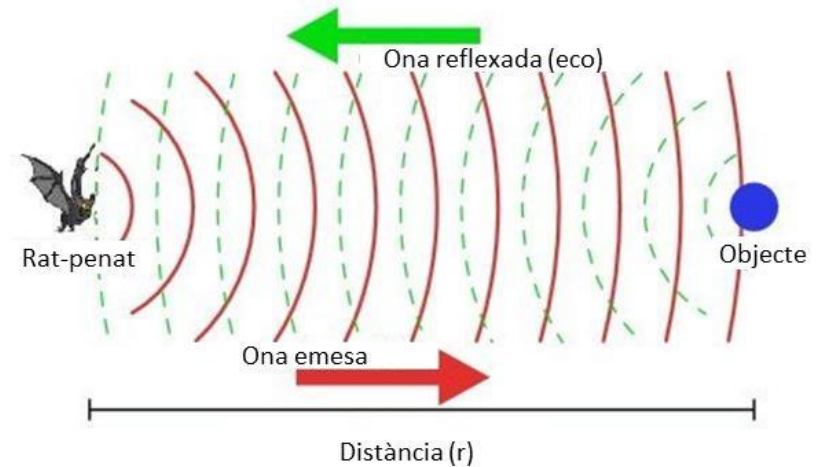
# Què és l'ecografia clínica?

Aquella ecografia realitzada pel metge de Primària com a complement a una anamnesi i exploració física adequades



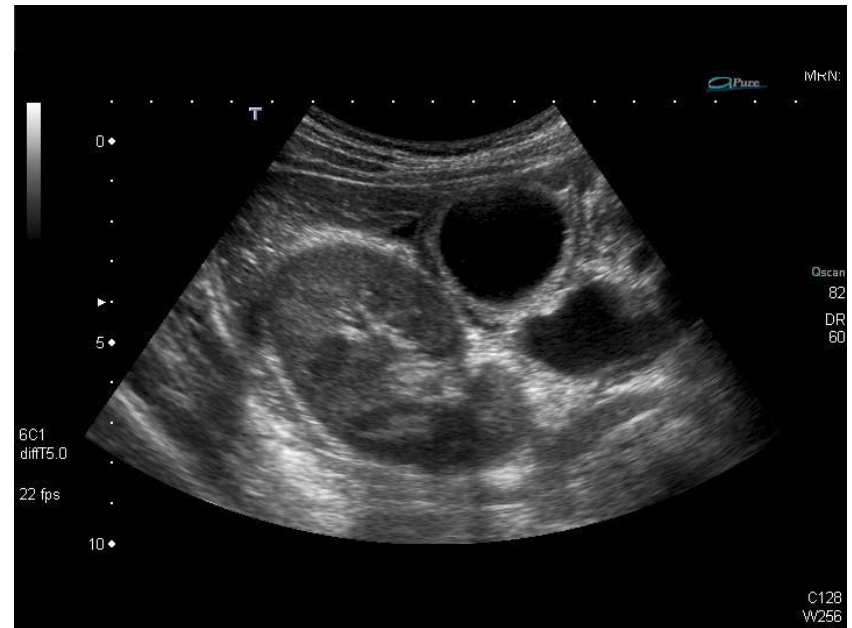
# Principis físics

- L'efecte piezoelèctric consisteix en transformar energia elèctrica en sonora
- L'ultraso és una ona mecànica d'alta freqüència (1,5 – 16 MHz)
- Les diferents sondes treballen a freqüències diferents:
  - Linial: alta freqüència (7.5-16MHz): millor resolució, menys profunditat



# Llenguatge ecogràfic

- Ecogenicitat (homogènia o heterogènia)
  - Hiperecogènica (blanc)
  - Hipoecogènica (gris)
  - Isoecogènica (iguals)
  - Anecogènica (negre)



# Descripció imatge ecogràfica

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- Intensitat (iso, hipo, hiper, a)
- Ecoestructura (homo, hetero)
- Delimitació de la imatge (ben/mal definit, marges, càpsula)
- Forma (arrodonida, ovalada, fusiforme)
- Número (únic, múltiple)
- Situació (normal, ectòpic)
- Relació amb altres estructures

# Alguns artefactes en ecografia

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Ombra posterior



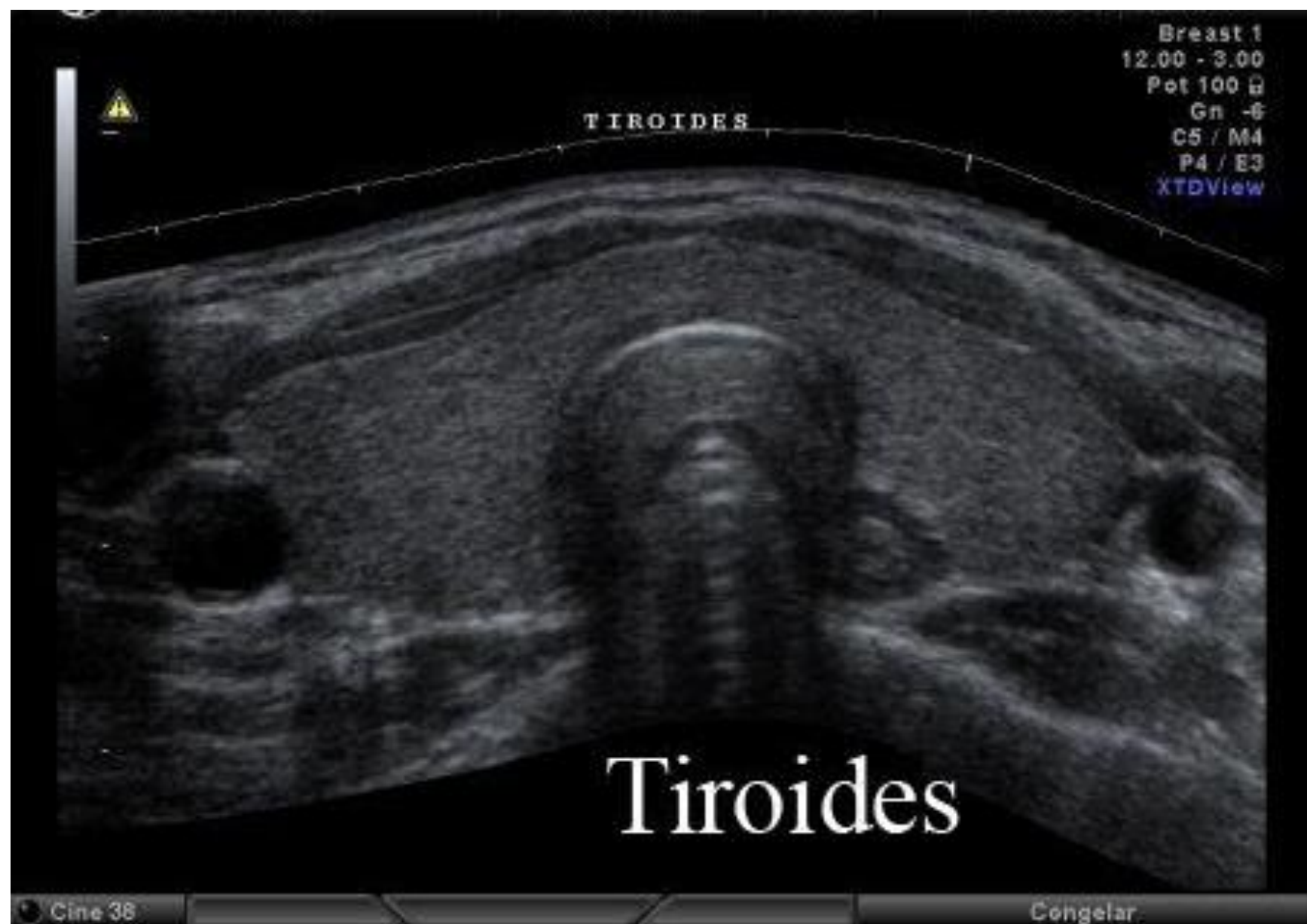
Reforç posterior

# Els 3 botons de les nostres vides

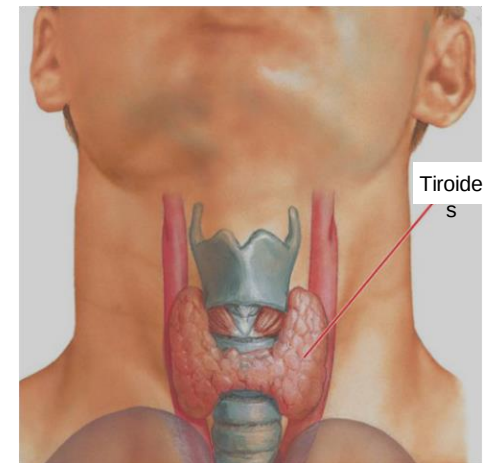
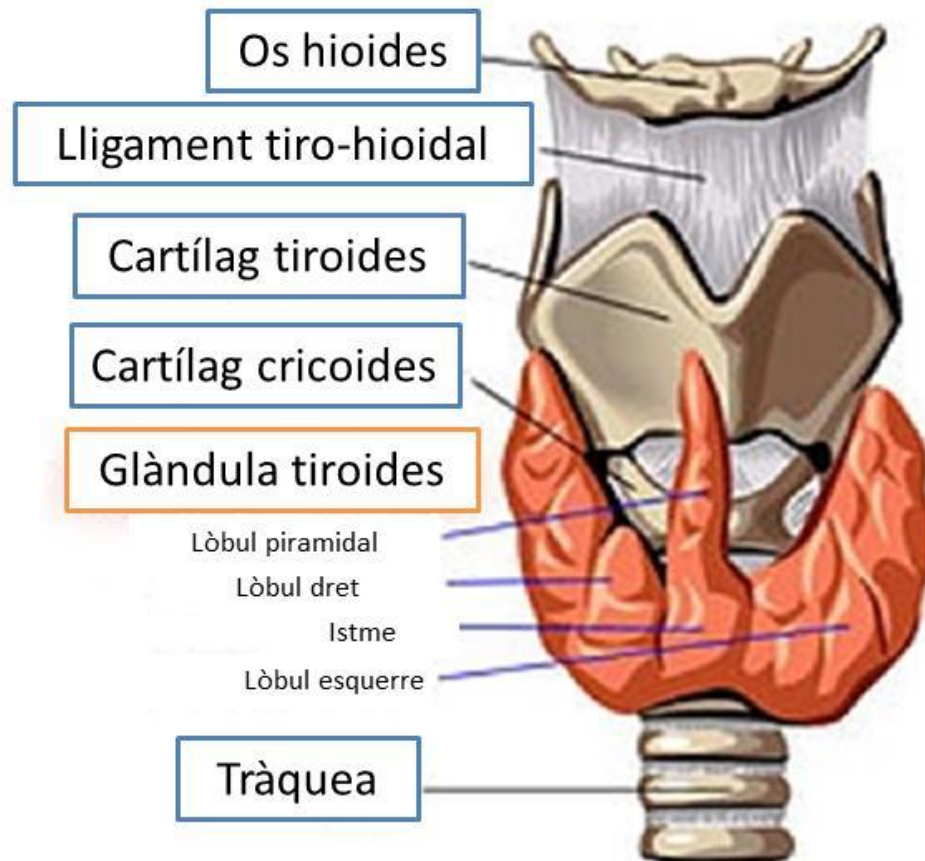
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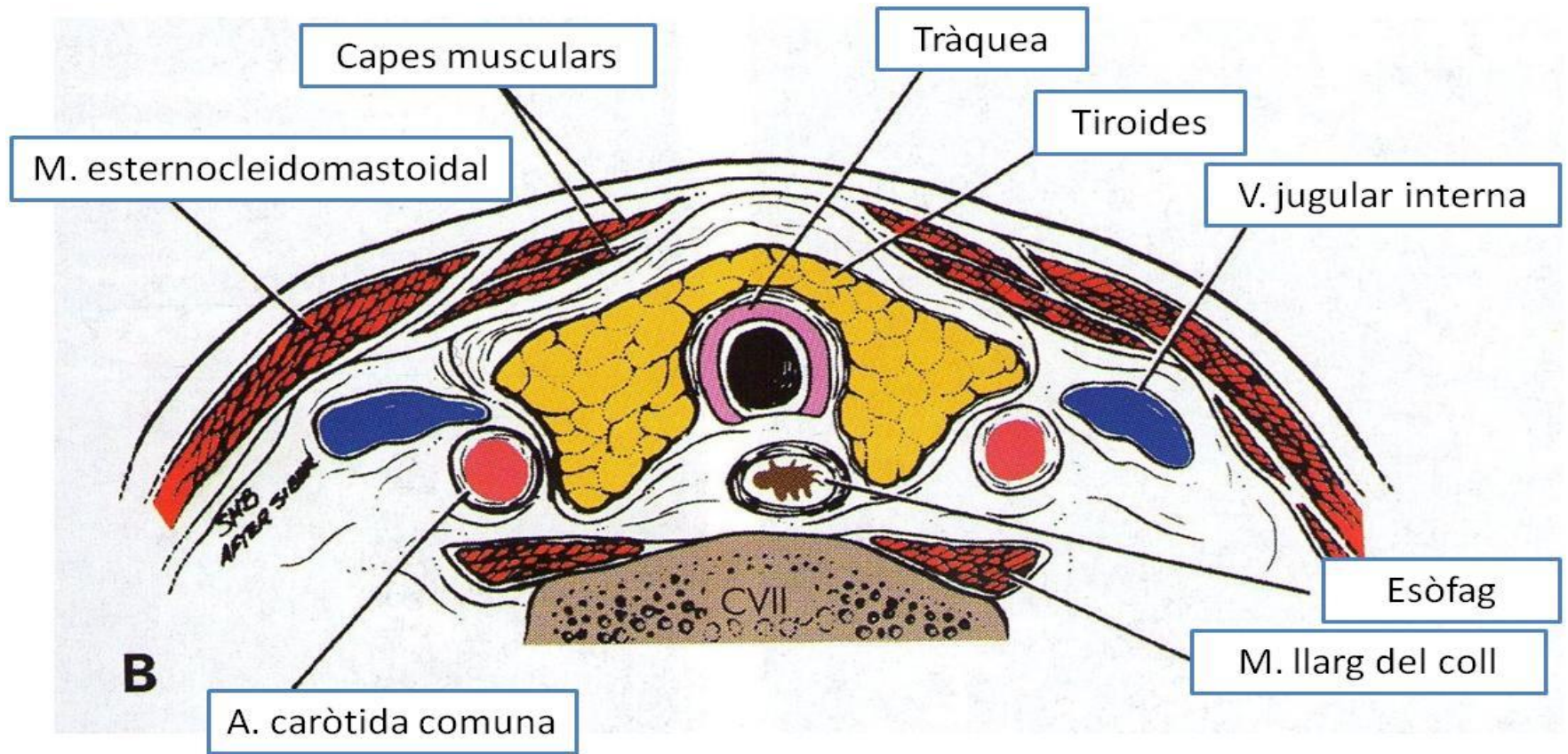
- Freeze – Cineloop
- Profunditat
- Ganància / guany

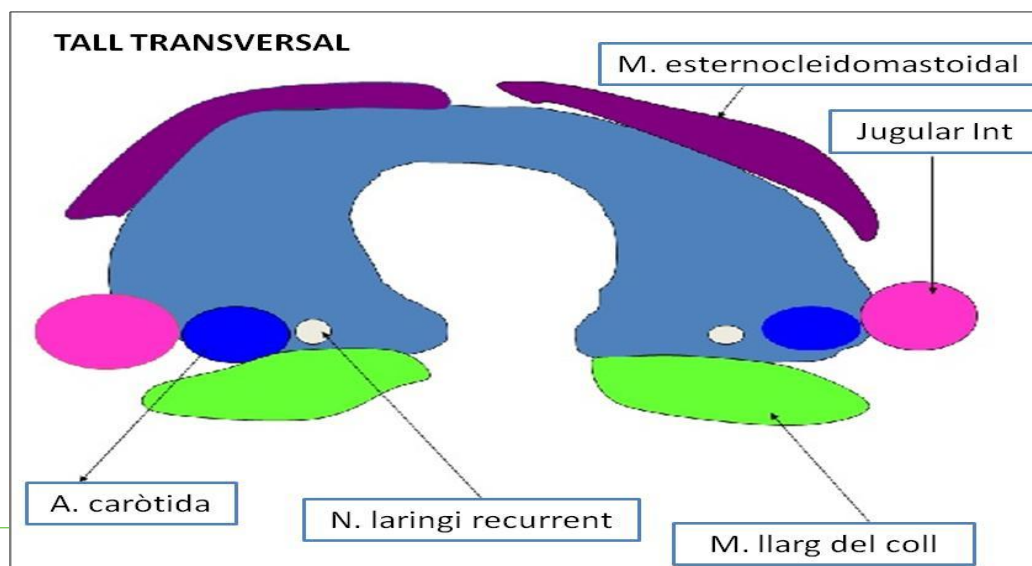
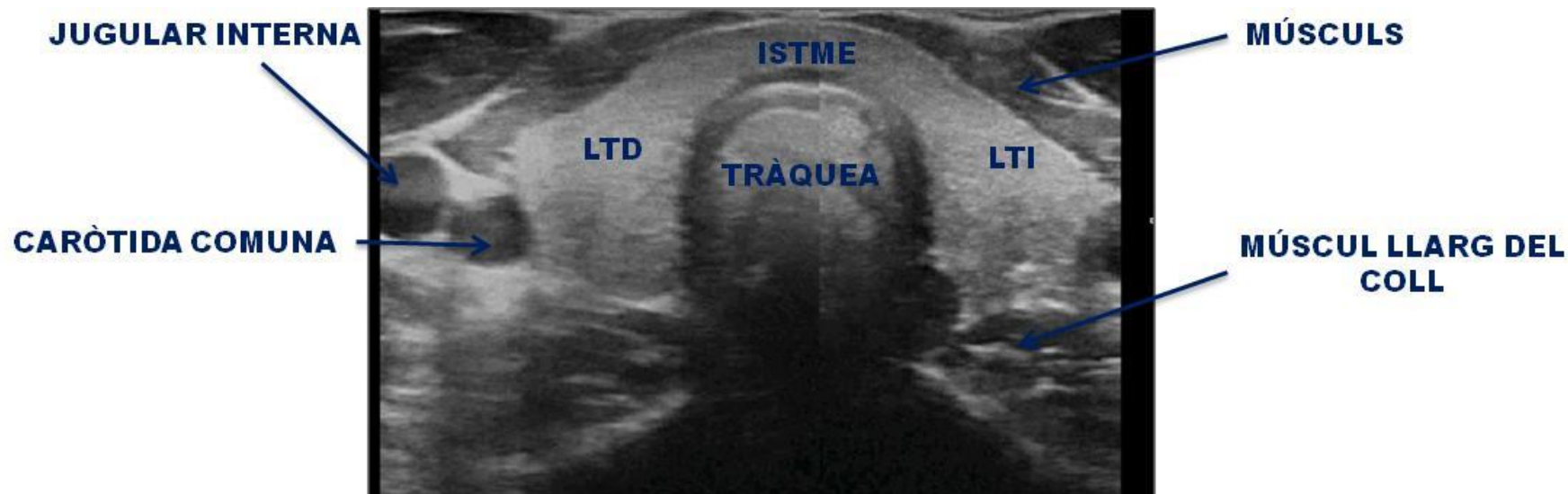


# Repàs anatòmic



# Repàs anatòmic





# Estudi ecogràfic

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- Pacient en decúbit supí o assegut amb hiperextensió del coll
- Pot recolzar-se amb coixí entre omòplats
- Sonda lineal : Freqüències altes, d'entre 7,5 - 16 MHz

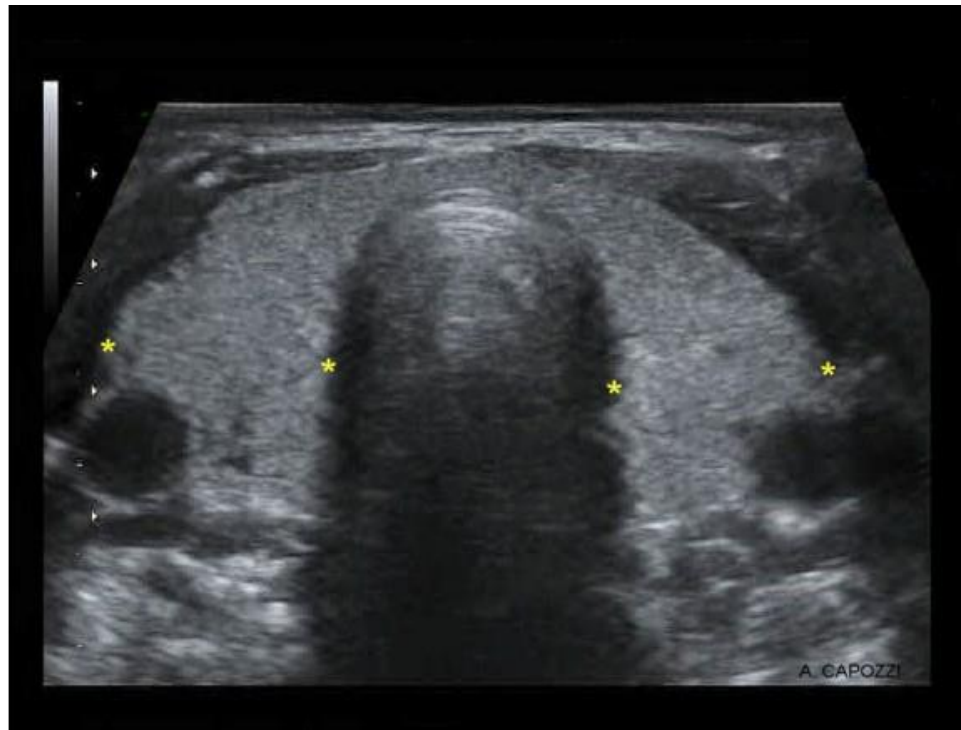


# Orientació de la imatge (Transversal)

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SUPERFICIAL

DRETA



ESQUERRA

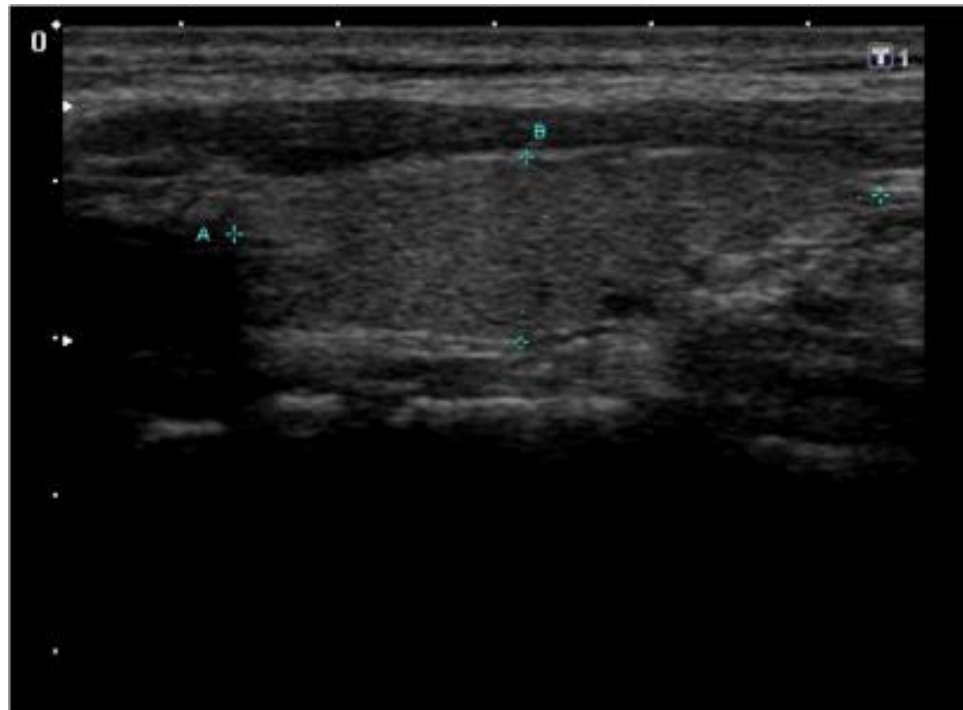
PROFUND

# Orientació de la imatge (Longitudinal)

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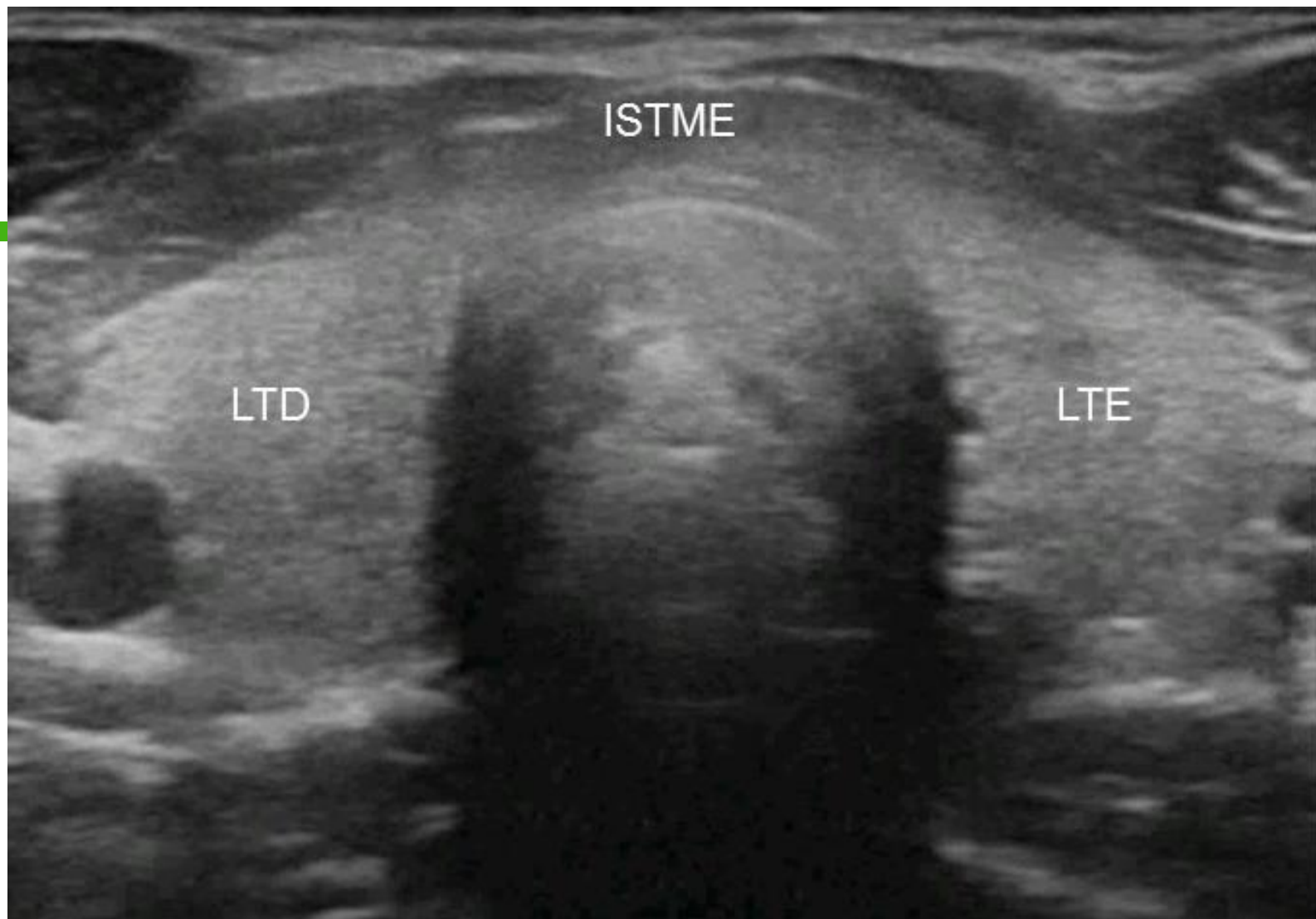
SUPERFICIAL

CRANEAL



CAUDAL

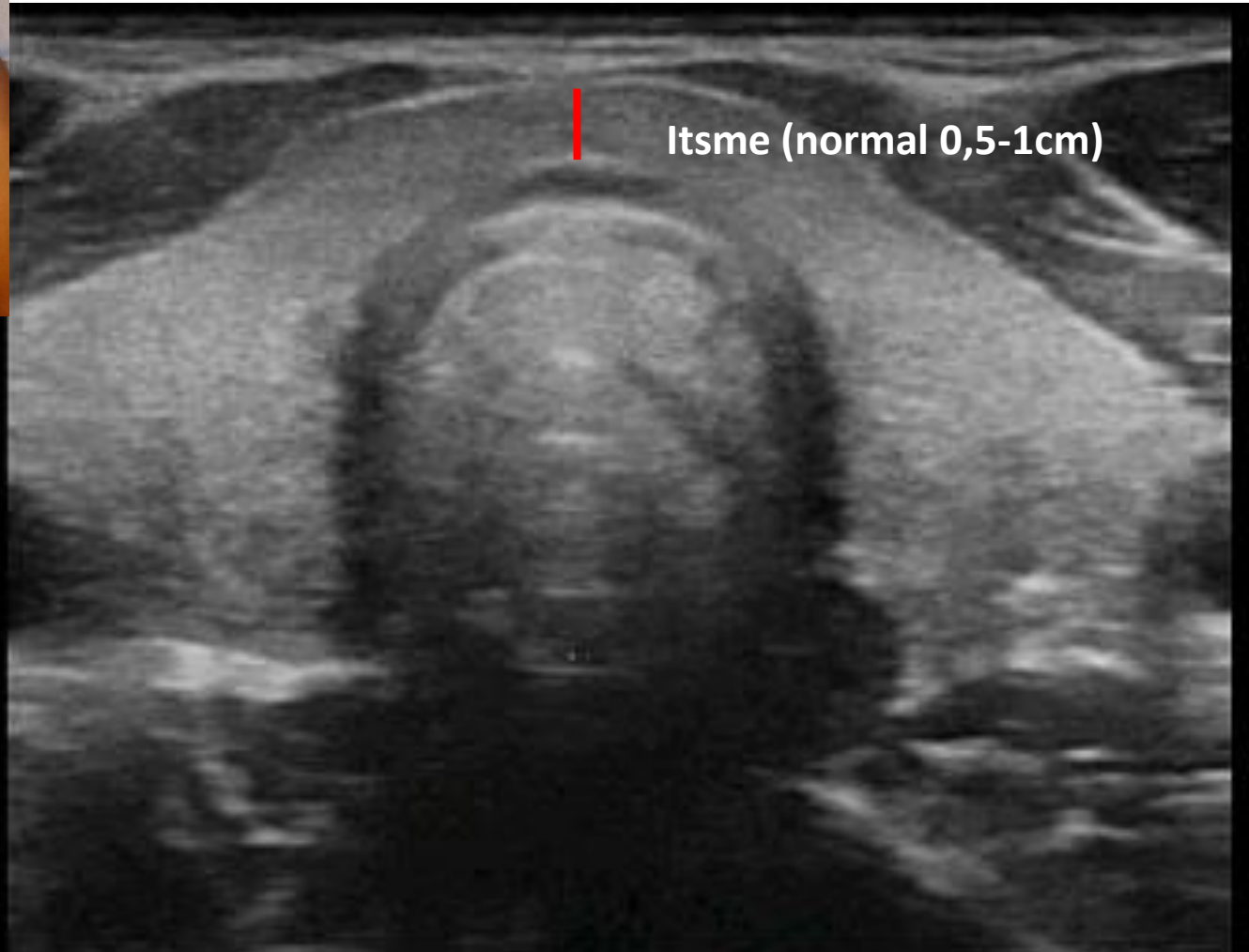
PROFUND



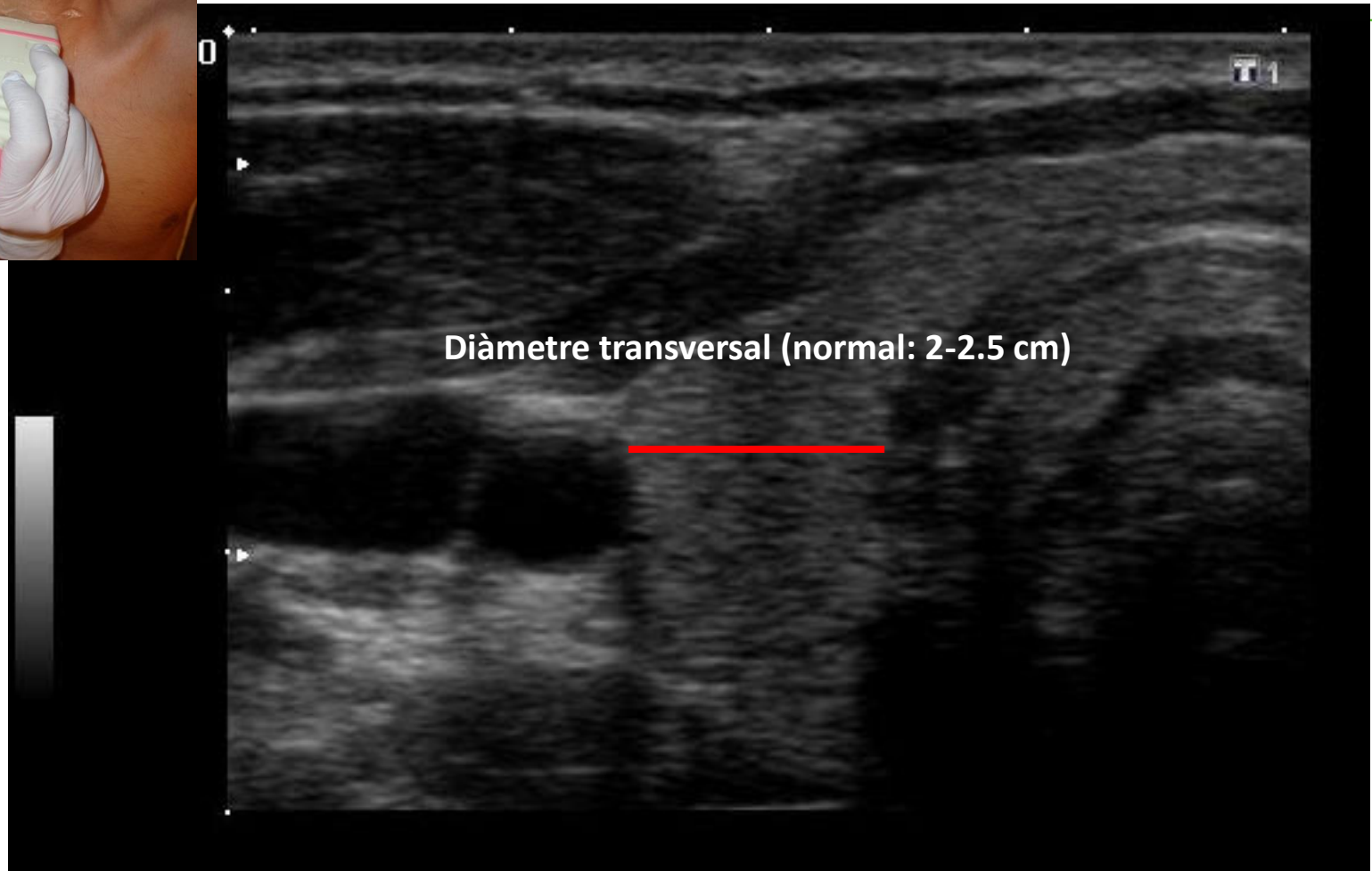
**Ecogenicitat normal: HOMOGÈNIA**



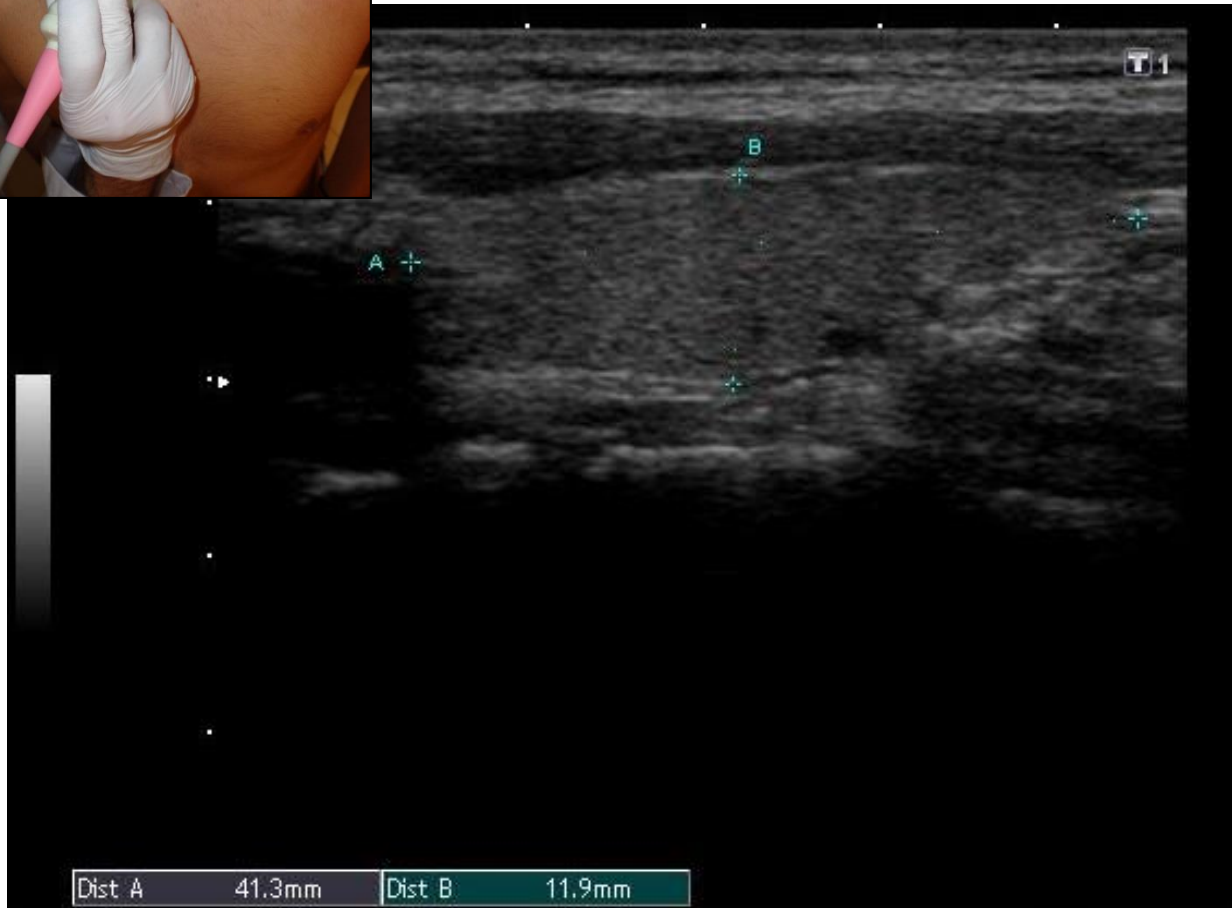
Tall transversal: istme



## Tall transversal: lòbul dret



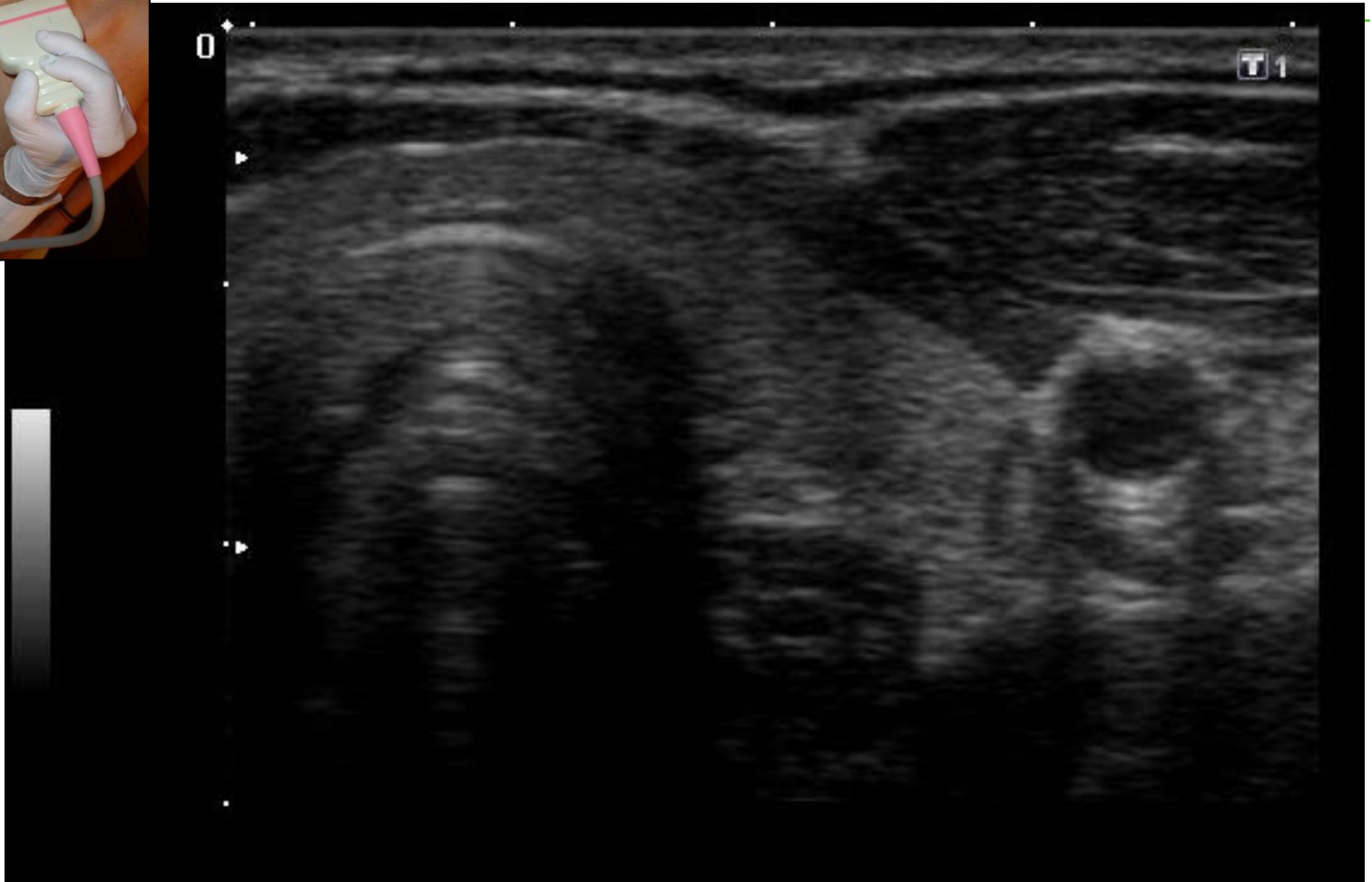
## Tall longitudinal: lòbul dret



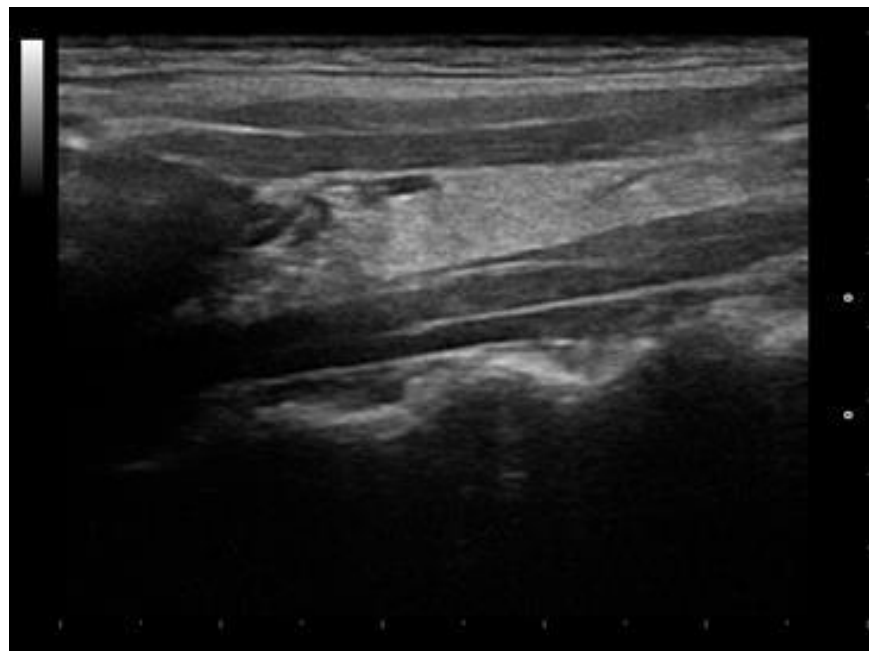
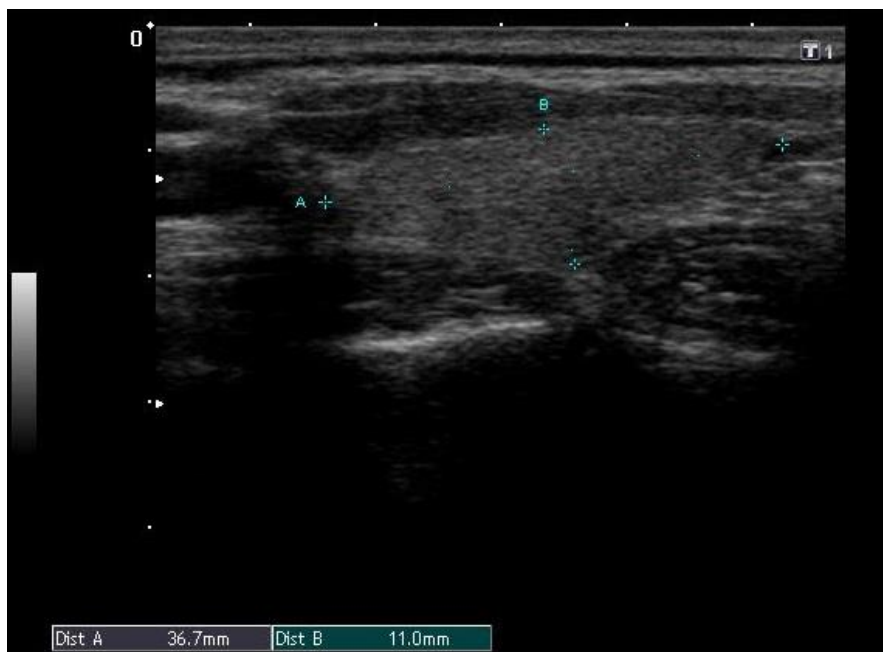
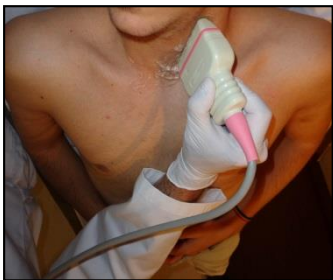
- A. Longitudinal o sagital  
(normal: 3,5 - 5 cm)
- B. Antero-posterior  
(normal: 1 - 2 cm)

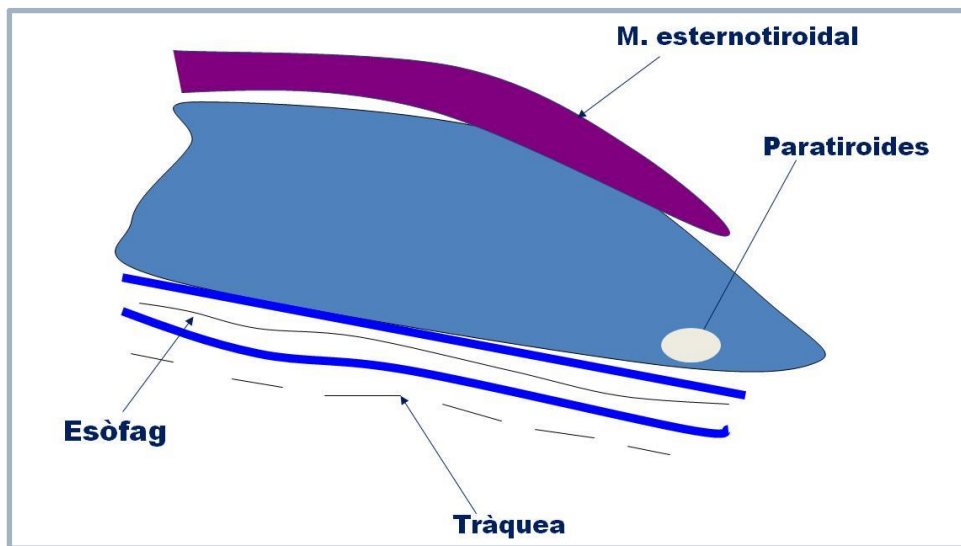
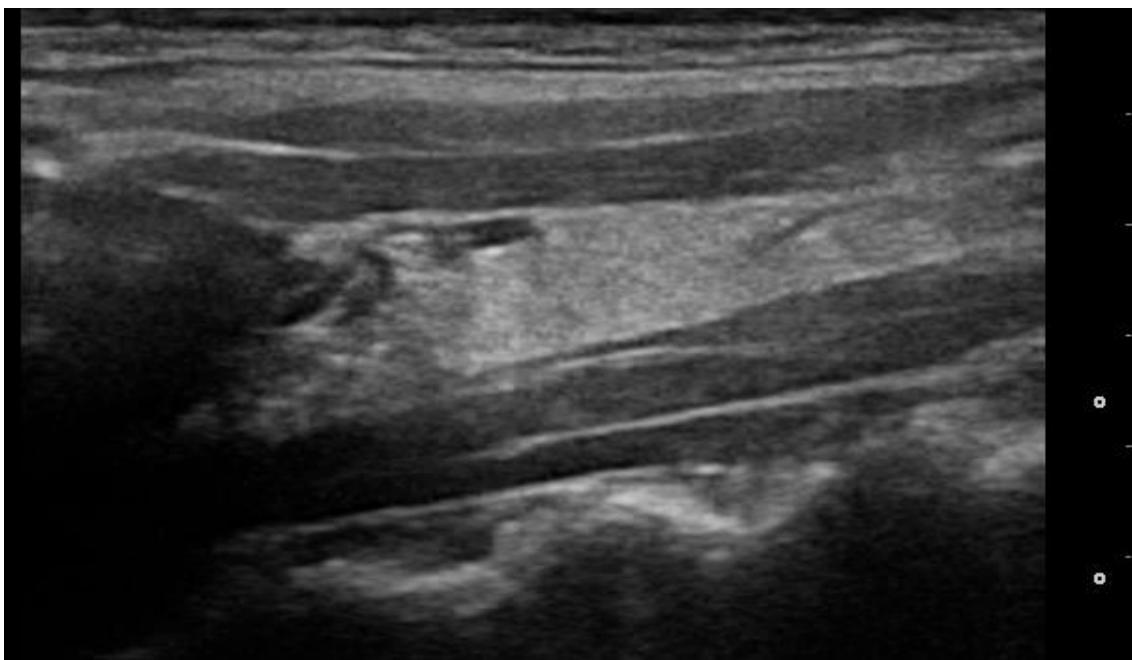
**Diem que la glàndula està augmentada de tamany quan el diàmetre AP és > 2cm**

## Tall transversal: lòbul esquerre



## Tall longitudinal: lòbul esquerre





Les glàndules paratiroides es troben a la regió posterior de cadascun dels quatre pols tiroideus (normalment no es veuen)

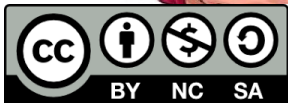
# XXI Jornada de Residents: Taller d'ecografia Estatlla i genoll



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# Consideracions generals

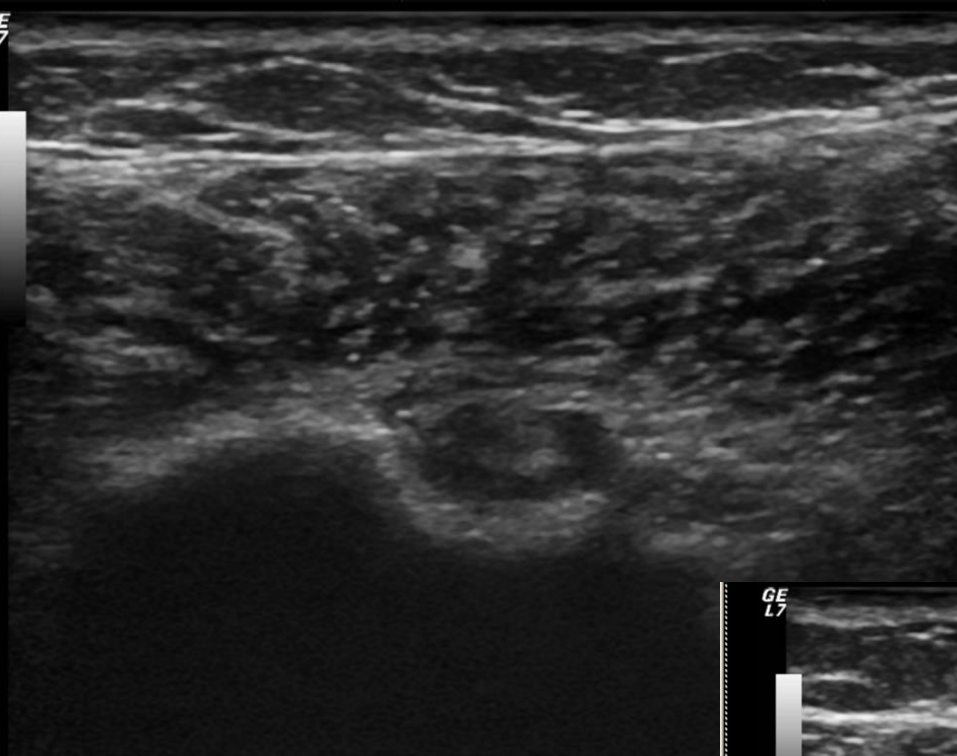
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- Sonda lineal d'alta freqüència
- Dues espatlles - cal comparar
- Pacient assentat en llitera o tamboret
- Cal preparació ?

**Benvinguts a  
I'ANISOTROPIA**



GE  
L7



- B CHI  
- Frec. 12.0 MHz  
- Gn 70  
- E/A 3/3  
- MapaH/0/0  
- D 3.0 cm  
- DR 75  
- FR 21 Hz  
- AO 90 %

1-

-

II

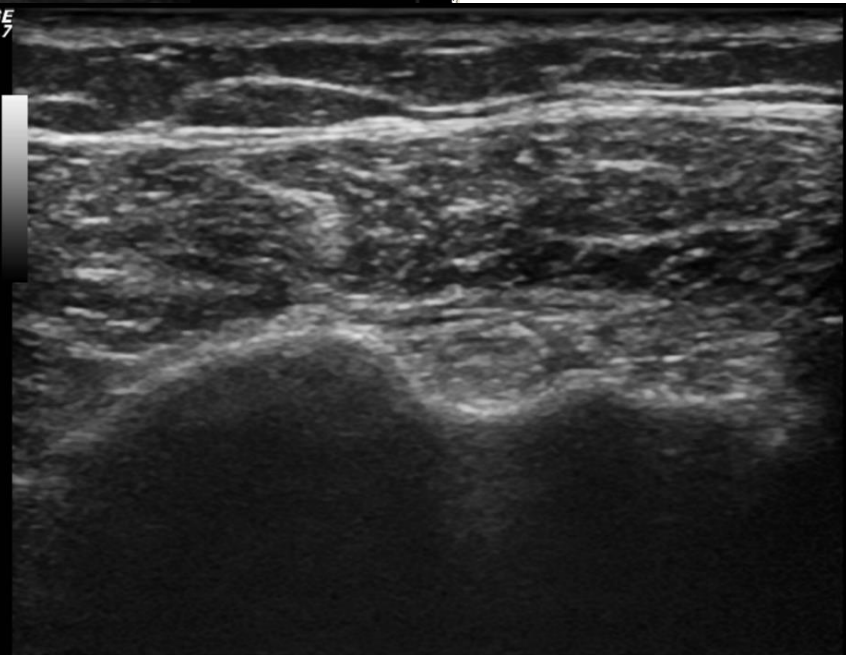
-

-

2-

-

GE  
L7



- B CHI  
- Frec. 12.0 MHz  
- Gn 70  
- E/A 3/3  
- MapaH/0/0  
- D 3.0 cm  
- DR 75  
- FR 21 Hz  
- AO 90 %

1-

-

II

-

-

2-

-

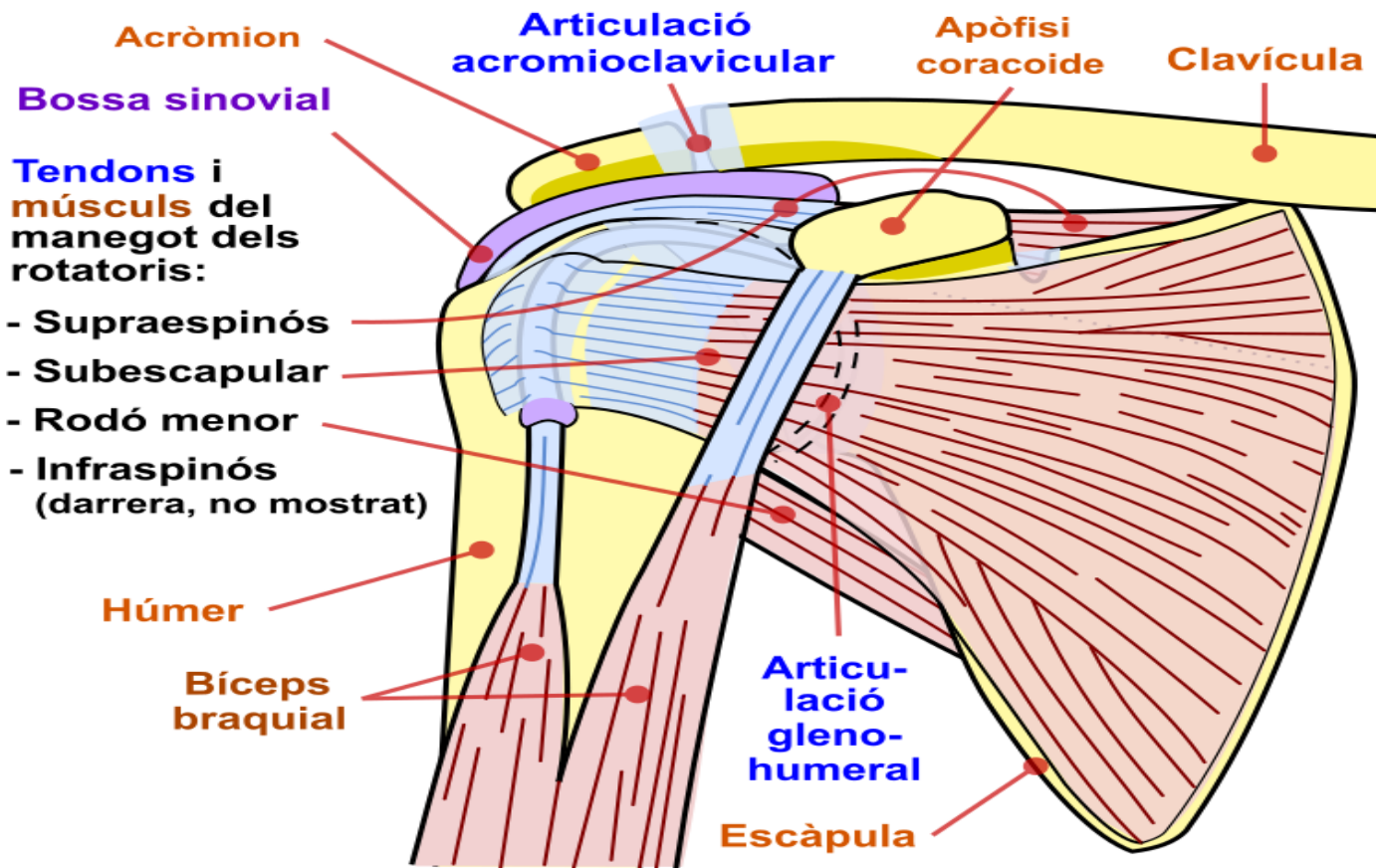
-

-

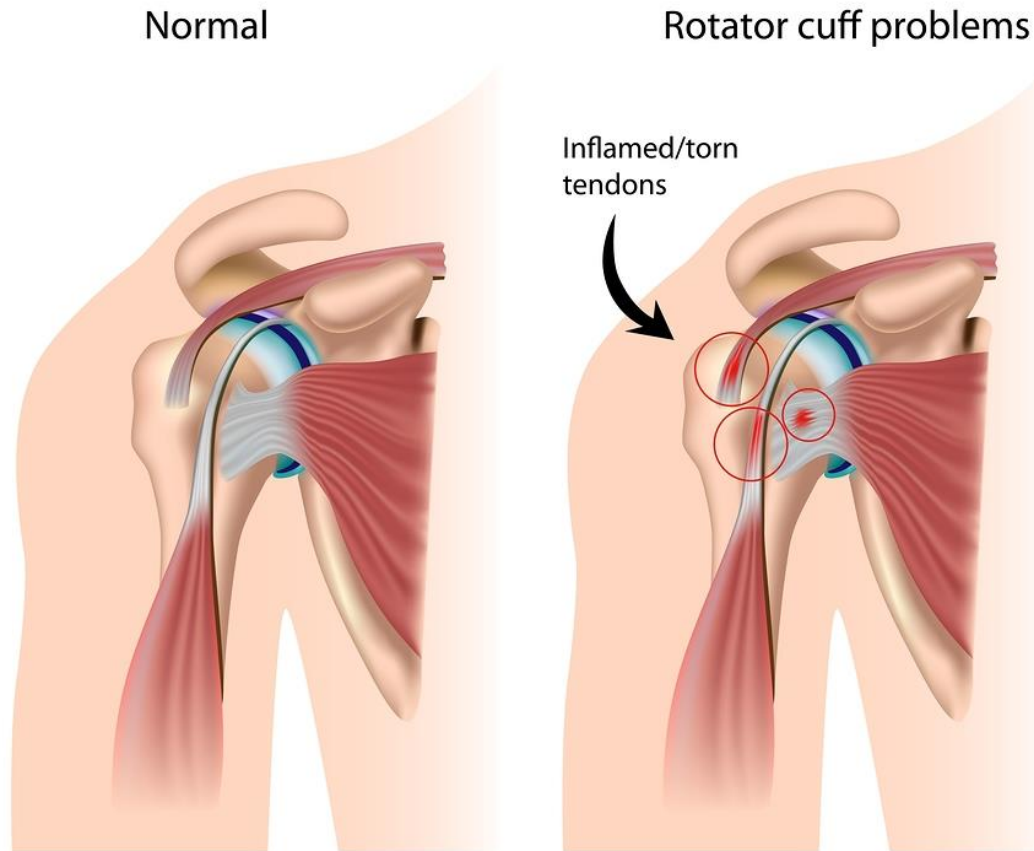
3-



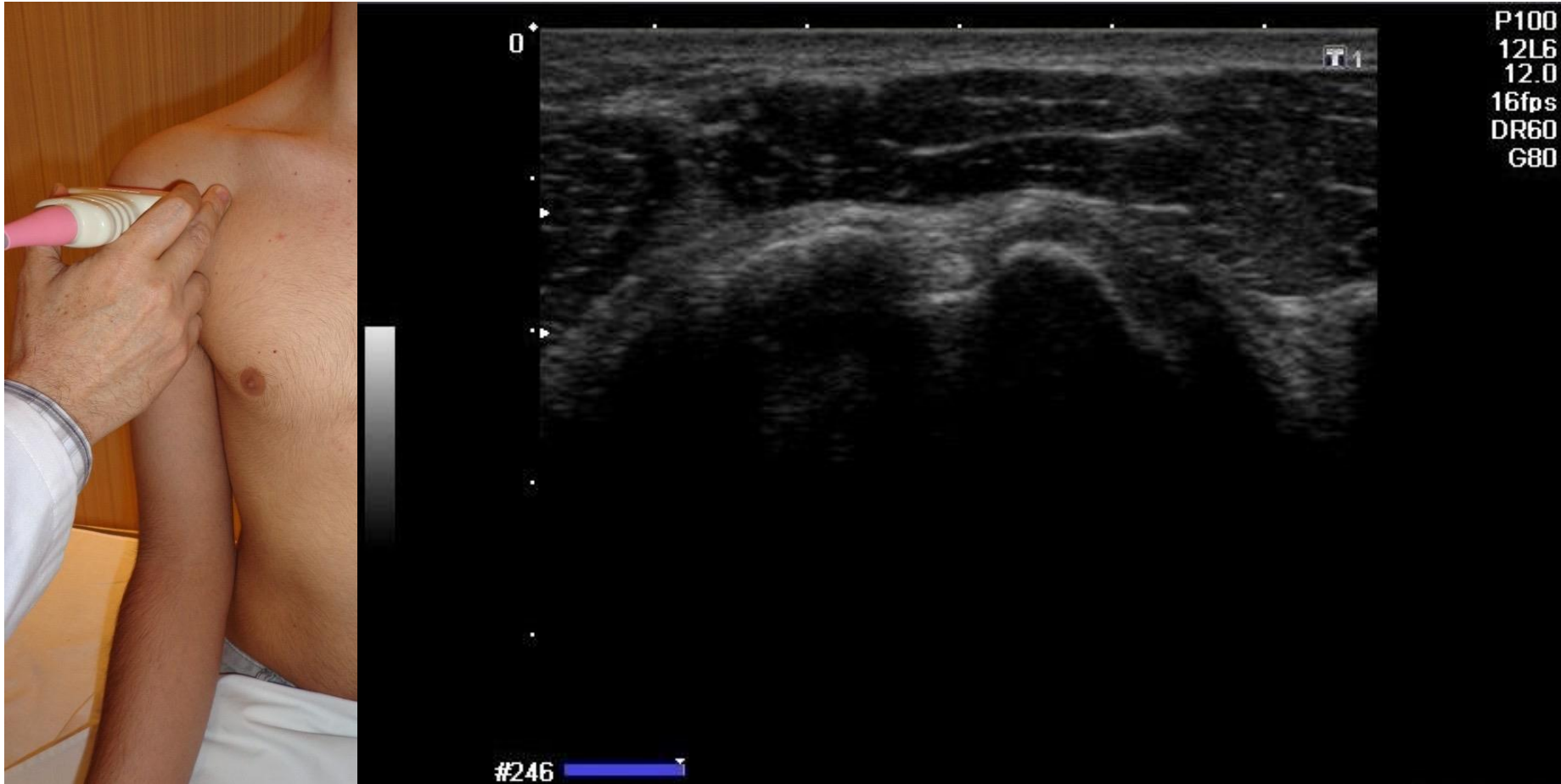
# Espatlla: repàs anatòmic



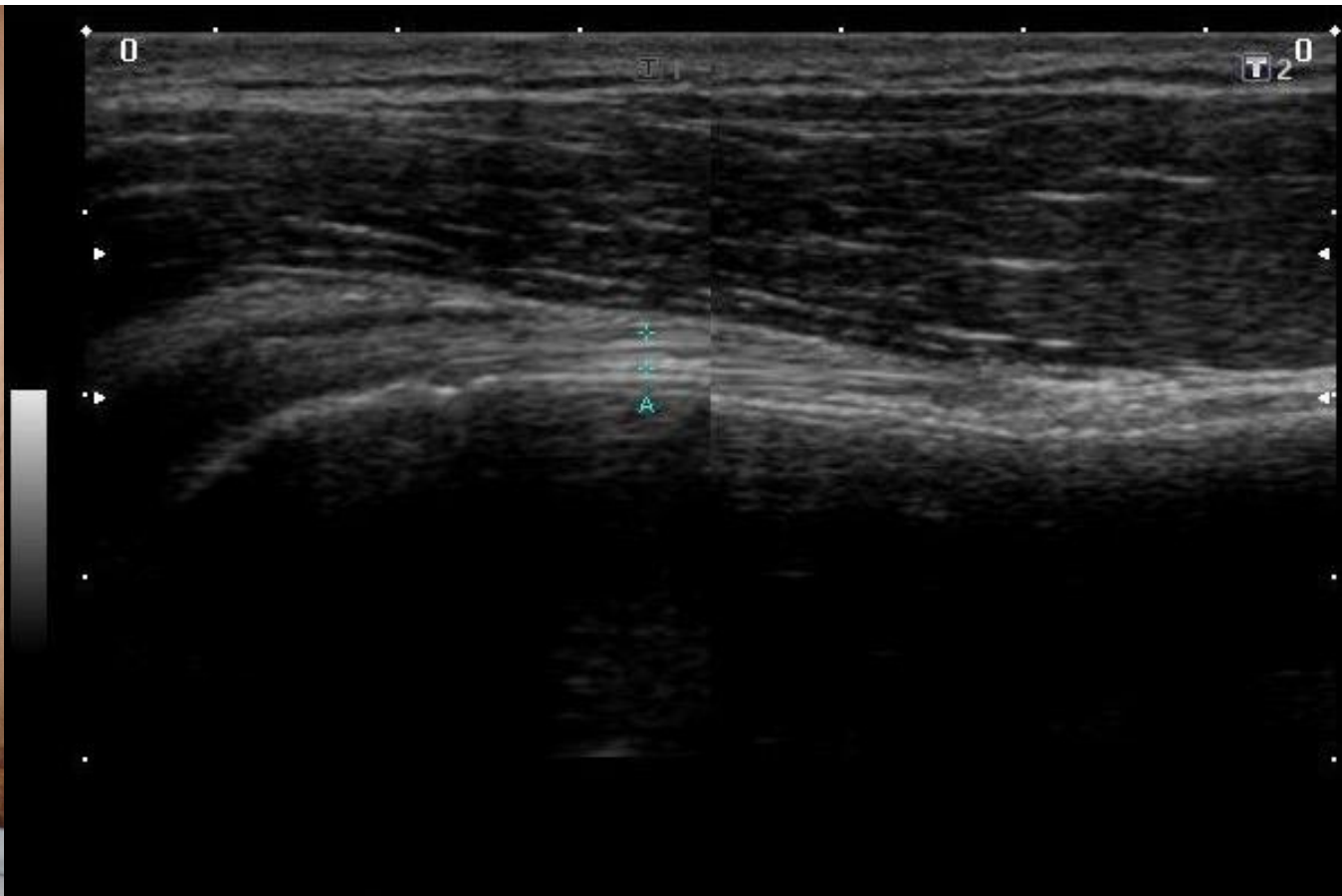
# Espatlla: repàs anatòmic



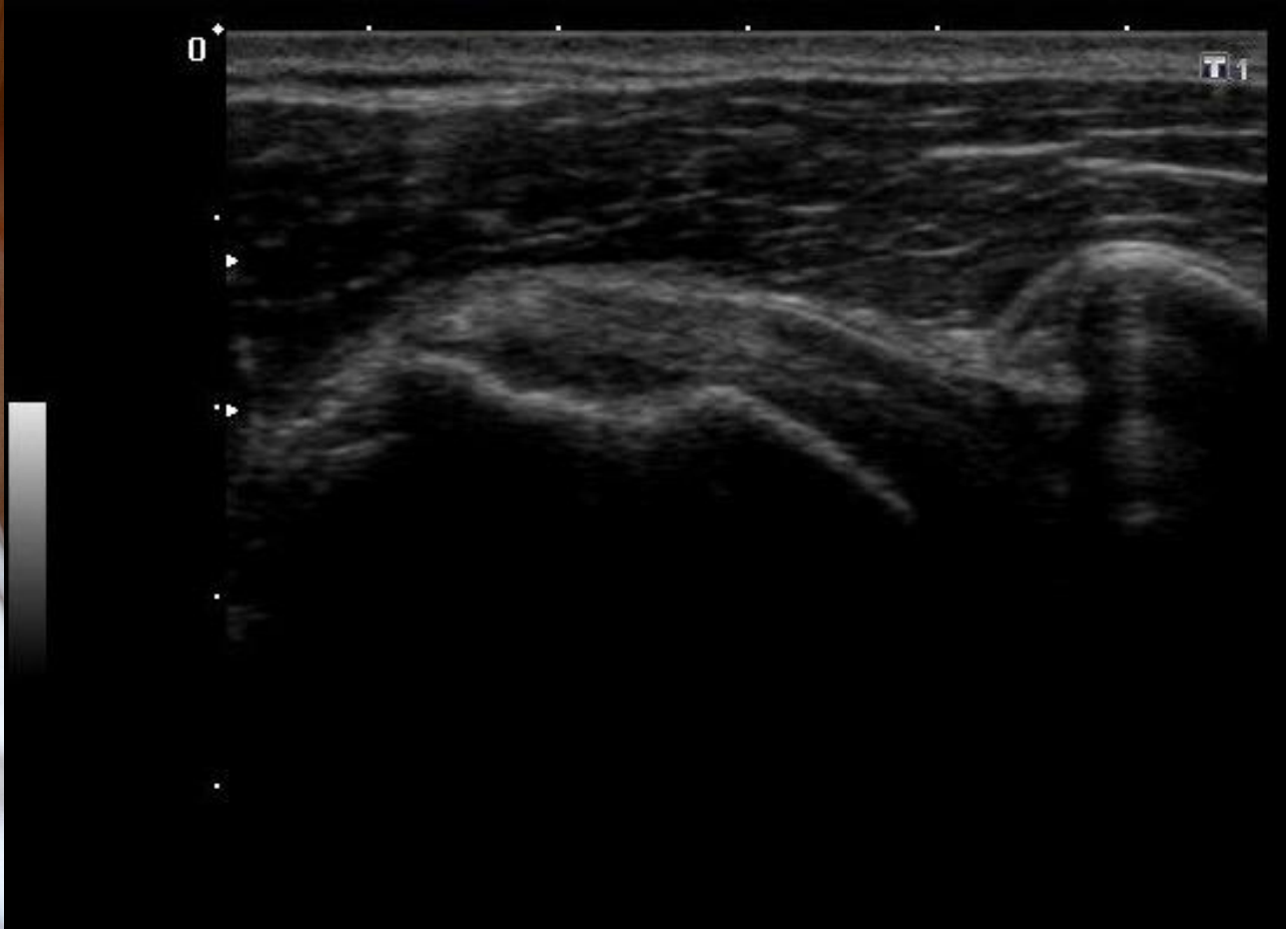
# 1. Ms bíceps braquial: transversal



# 1. Ms bíceps braquial: longitudinal

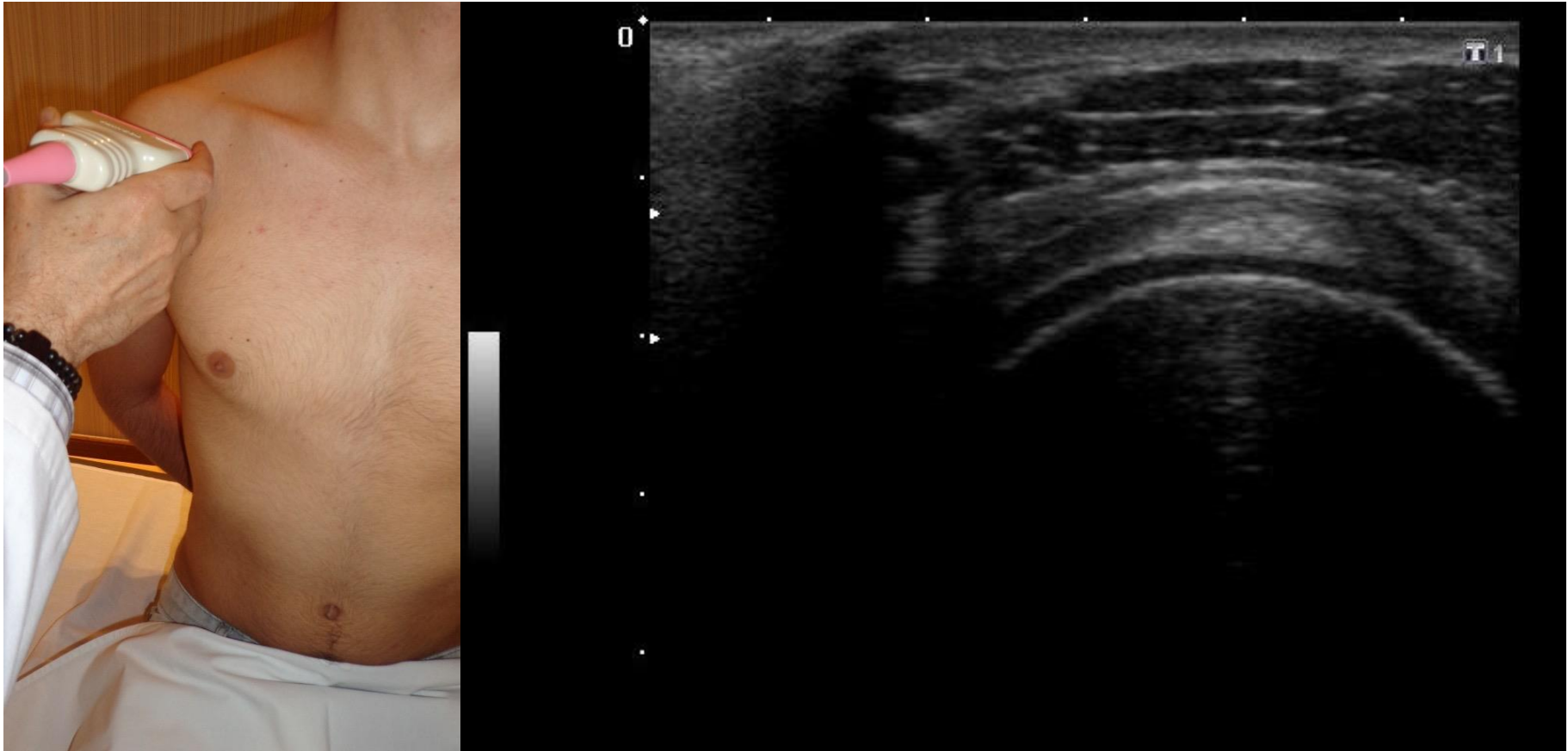


## 2. Ms subescapular: longitudinal



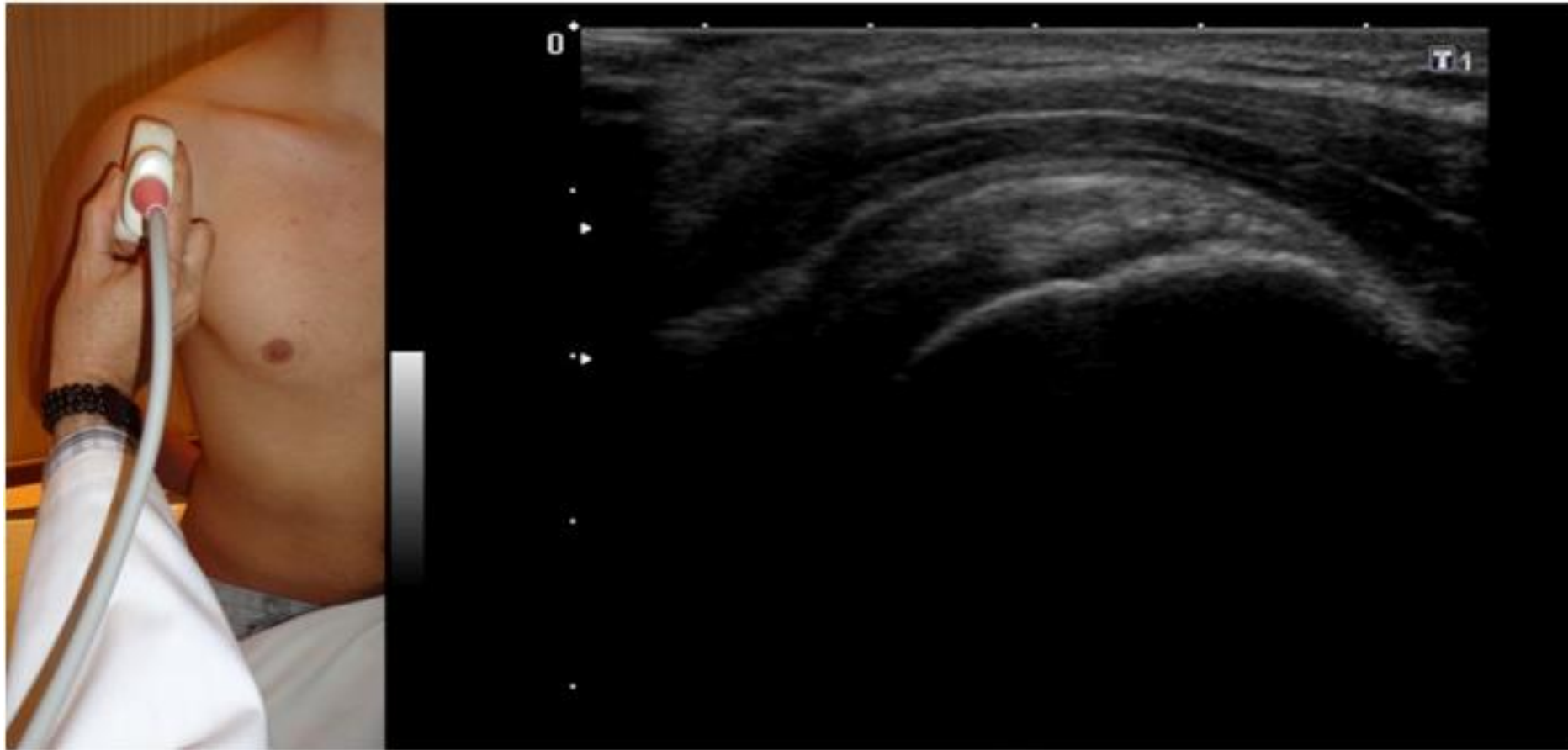
### 3. Ms supra-espinós: transversal

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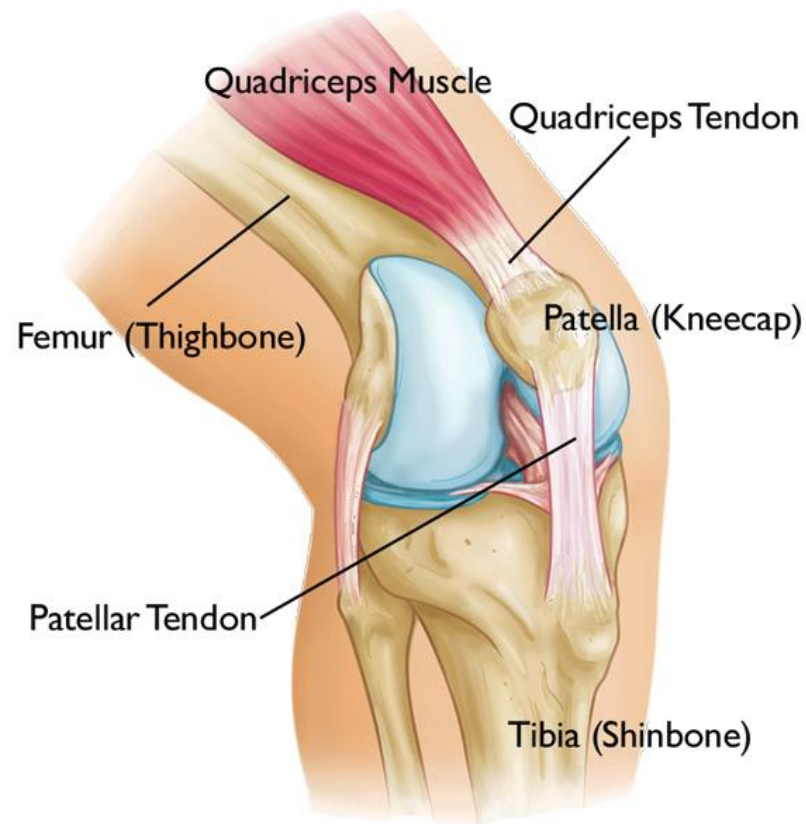
### 3. Ms supra-espinós: longitudinal

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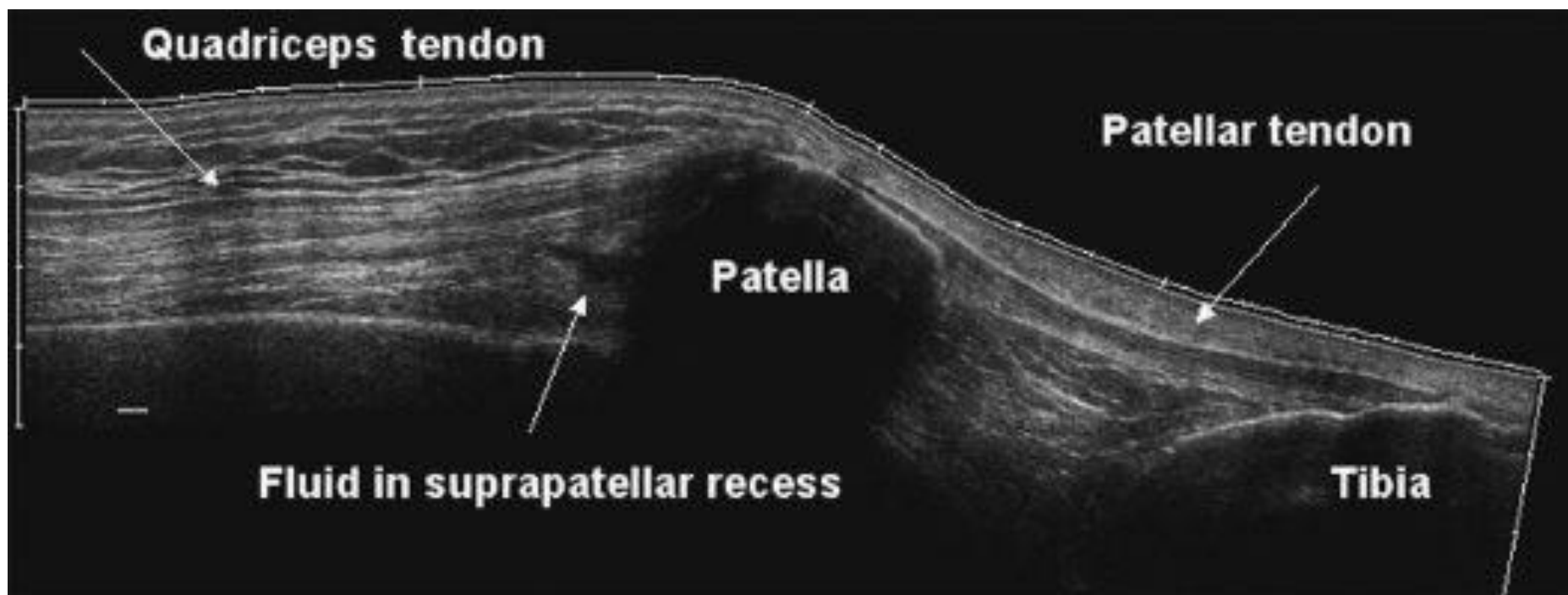
# Genoll: repàs anatòmic

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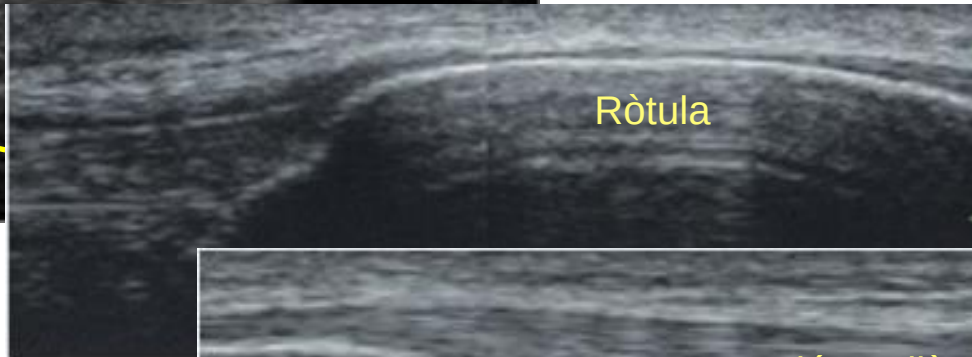
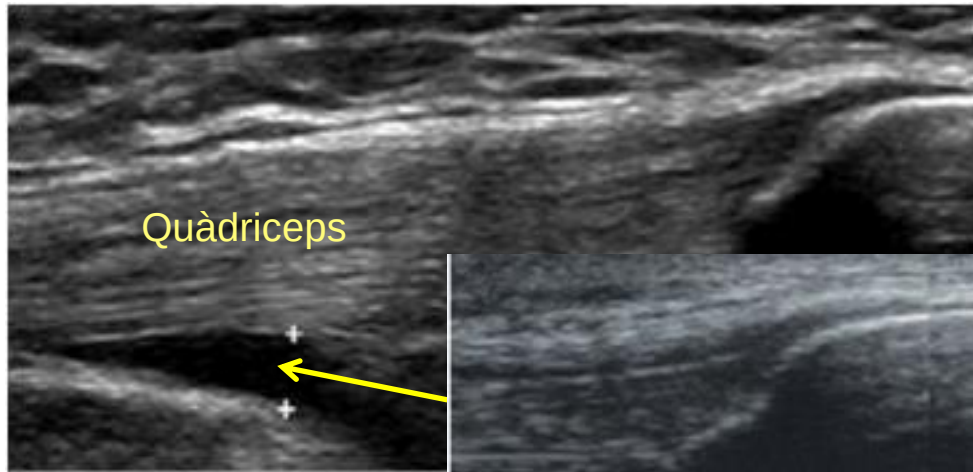


# Tendó quadricipital i rotulià

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# Tendó quadricipital i rotulià



# Tendó quadricipital i rotulià

Quàdr. transv.

Rotulià

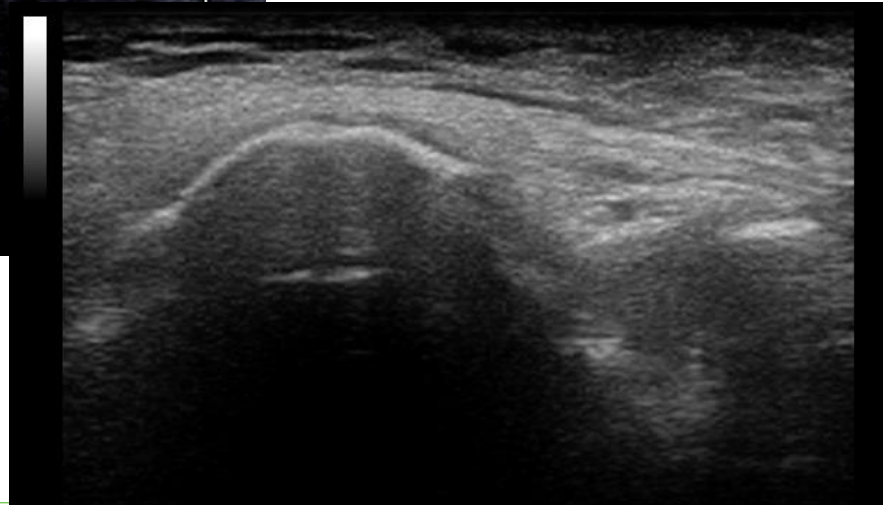
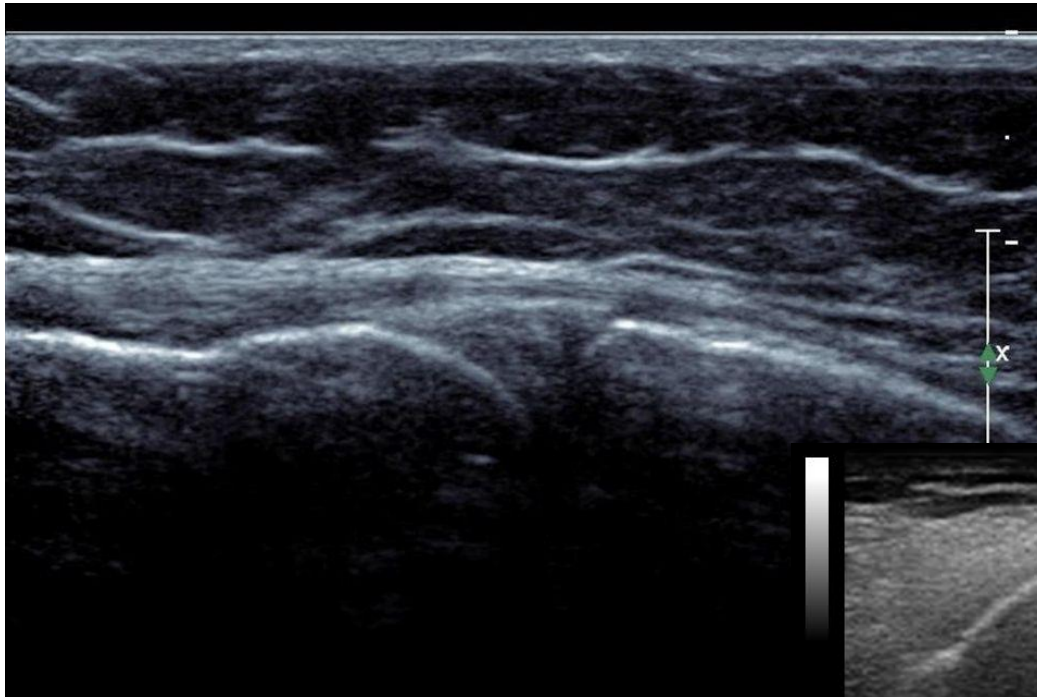
Quàdr. long.

CUADR

ROTULIA

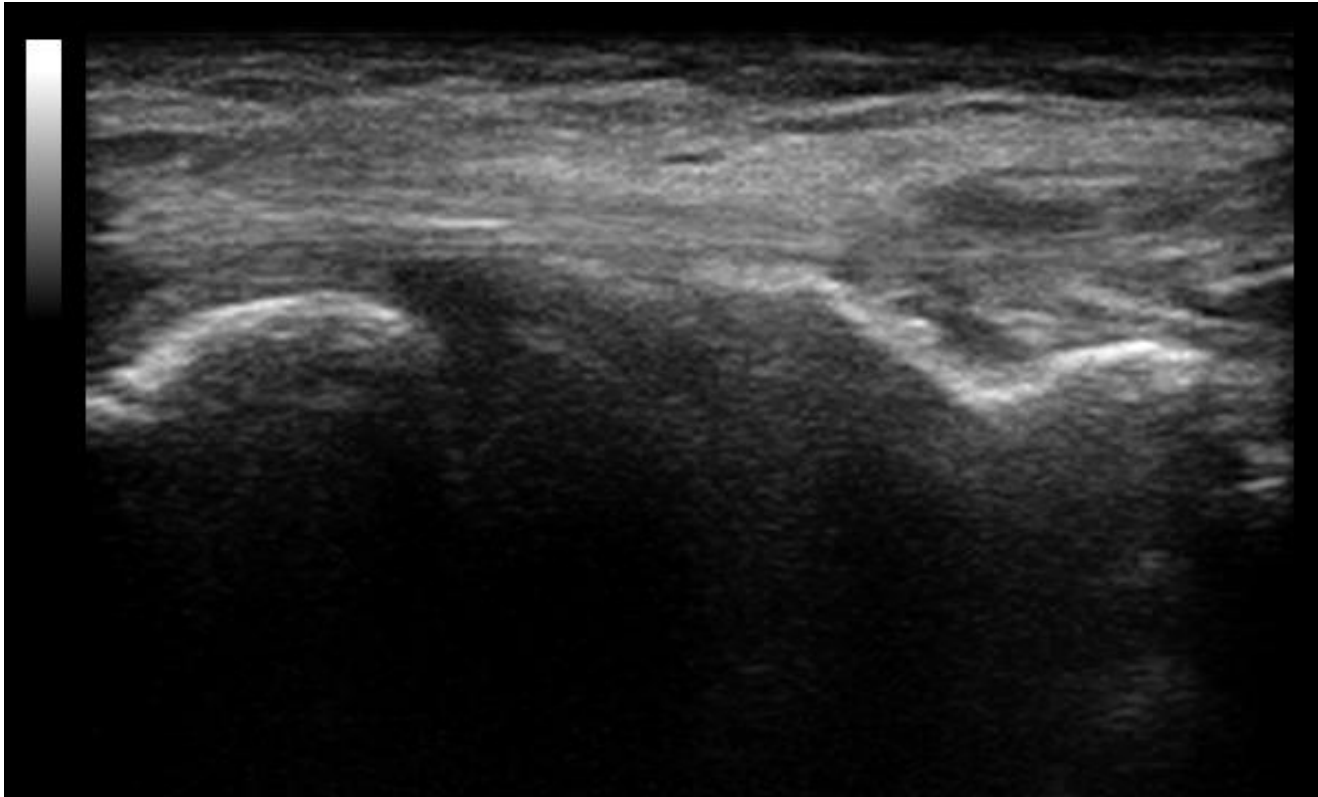


# Lligament lateral intern



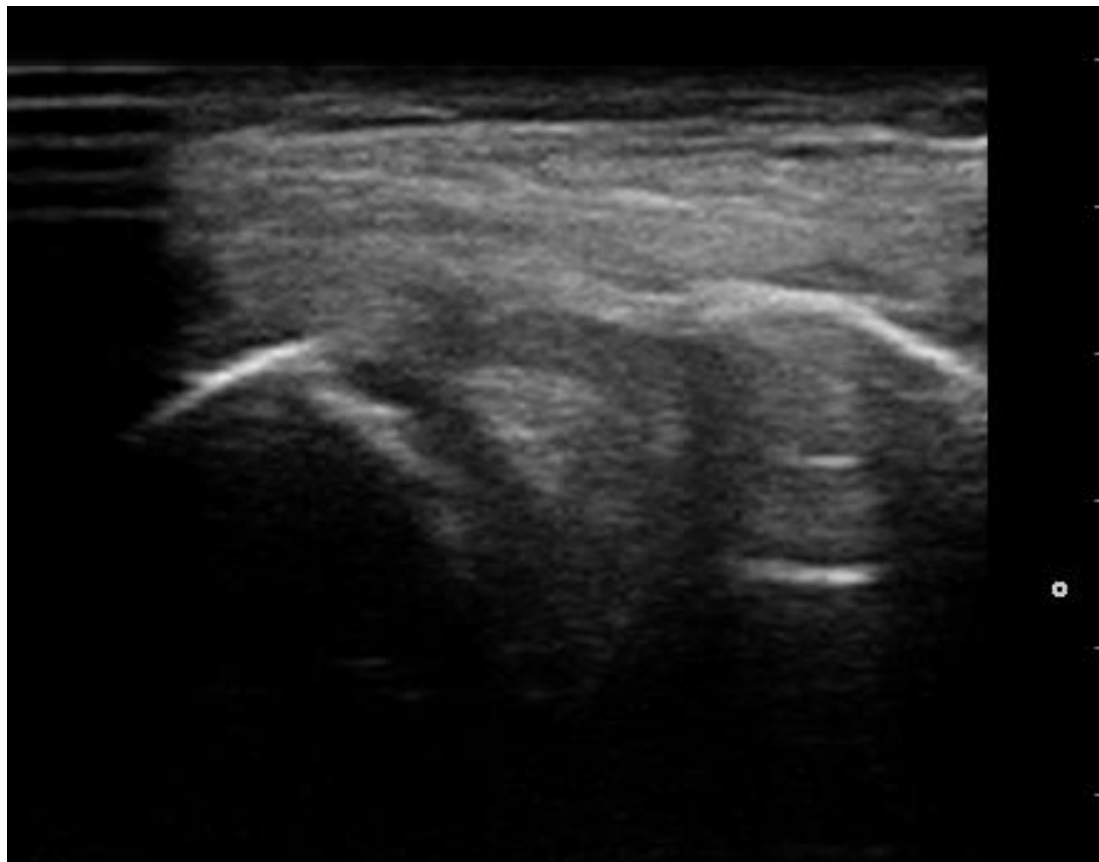
# Lligament lateral extern

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# Menisc

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# **XX Jornada de Residents:**

## **Taller d'ecografia**

### **TVP**

GdT ecoAP

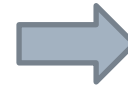
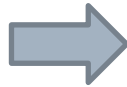


# Tècnica

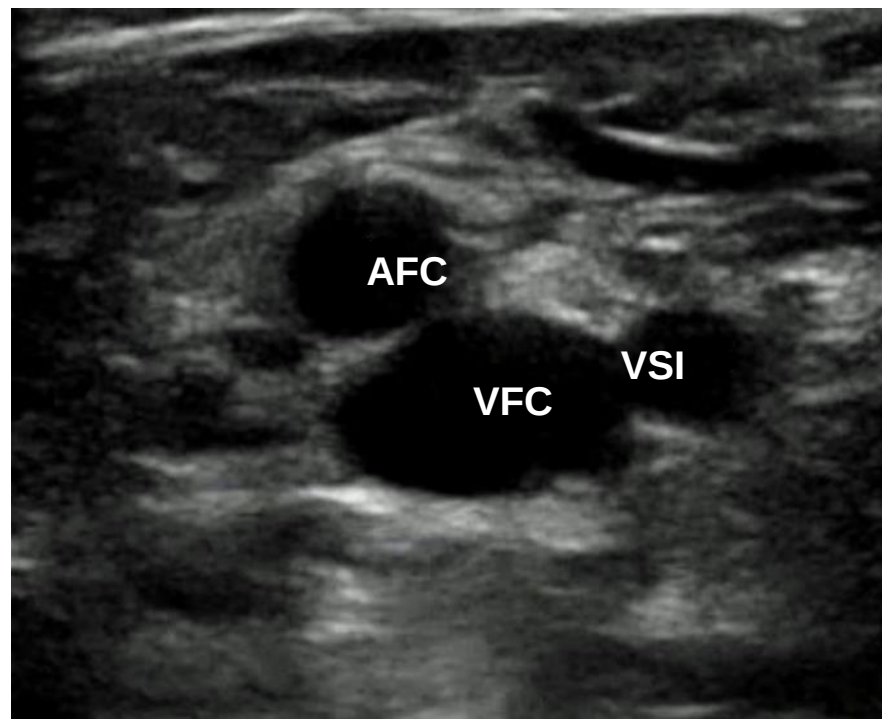
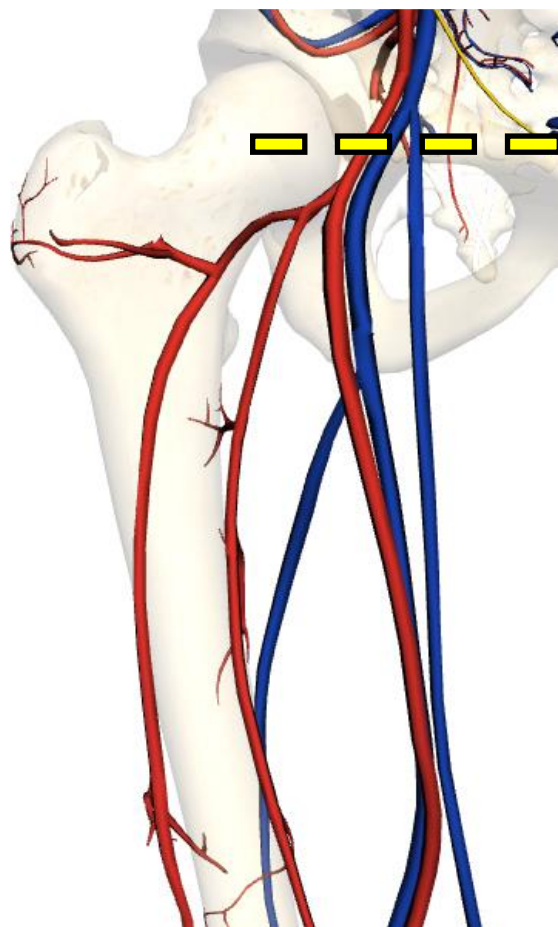
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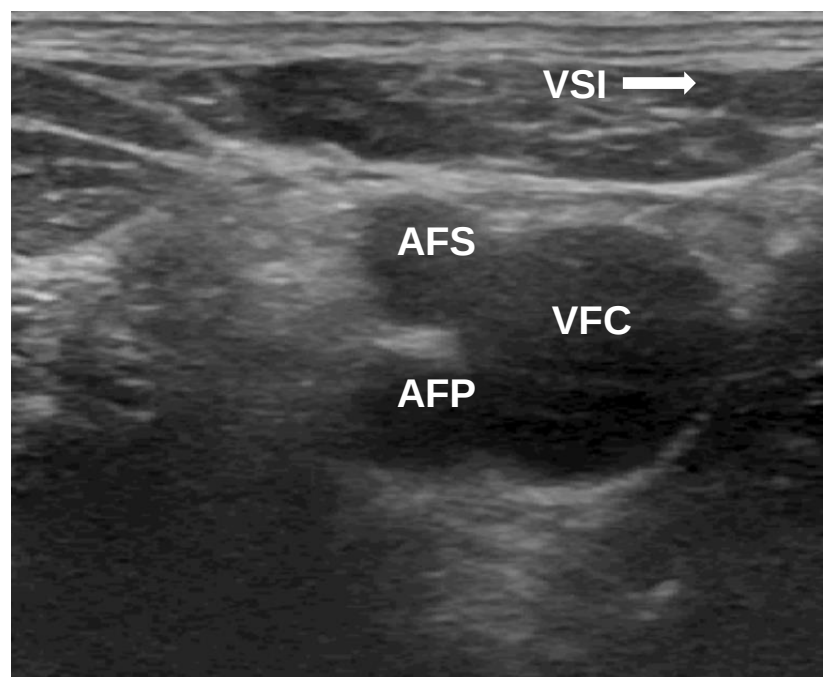
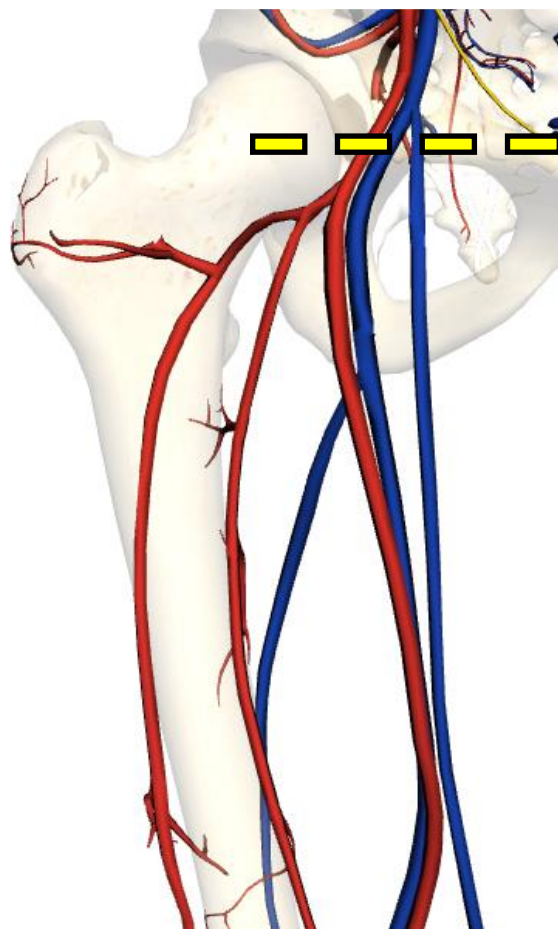
**Sonda lineal  
d'alta freqüència  
(7,5-16 MHz)**



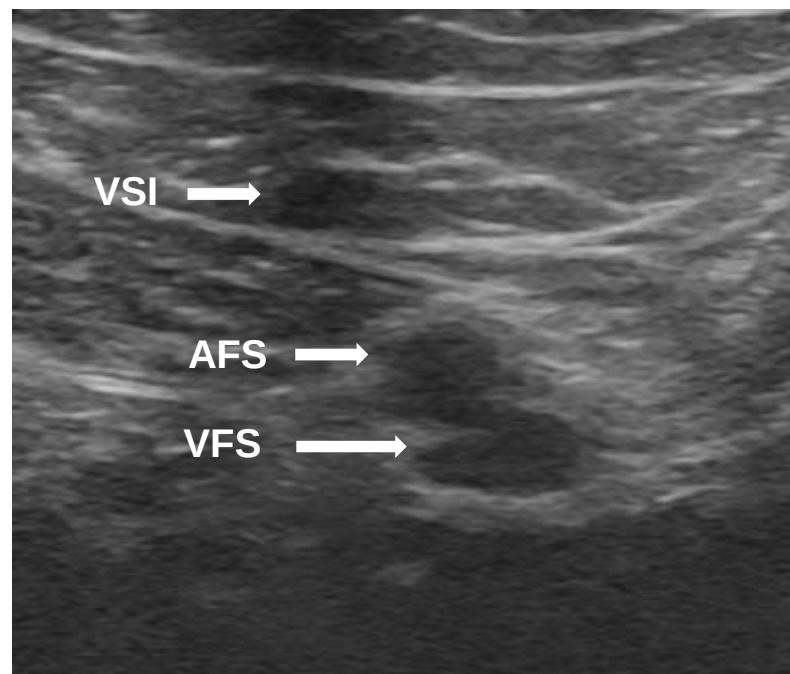
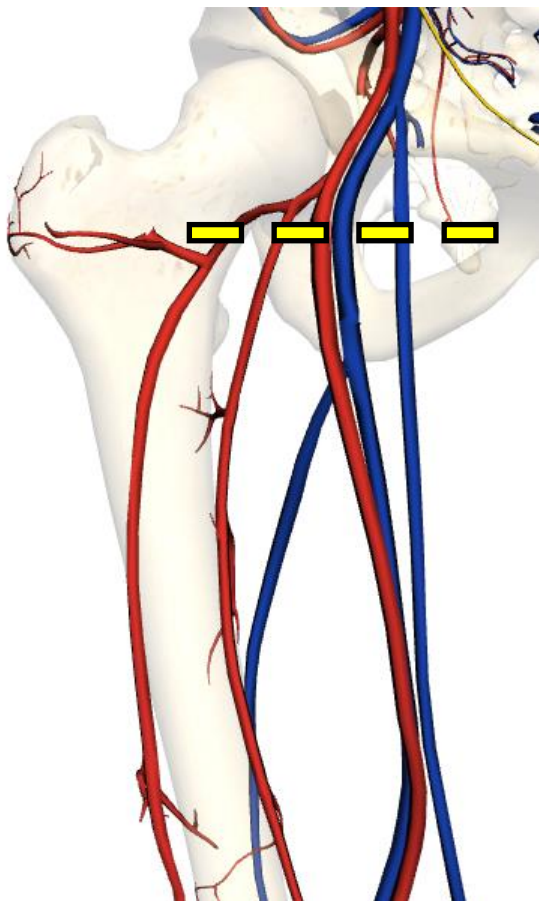
# Tècnica



# Tècnica



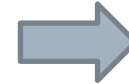
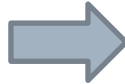
# Tècnica



# Tècnica

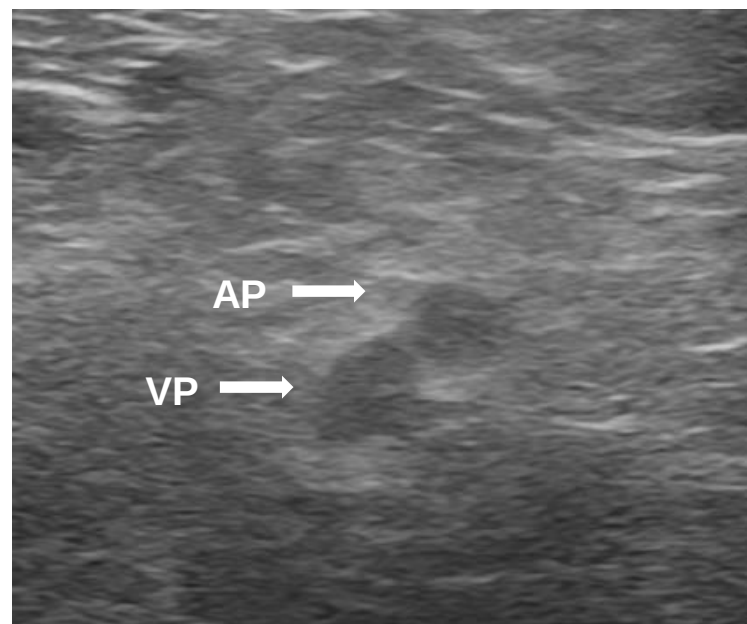
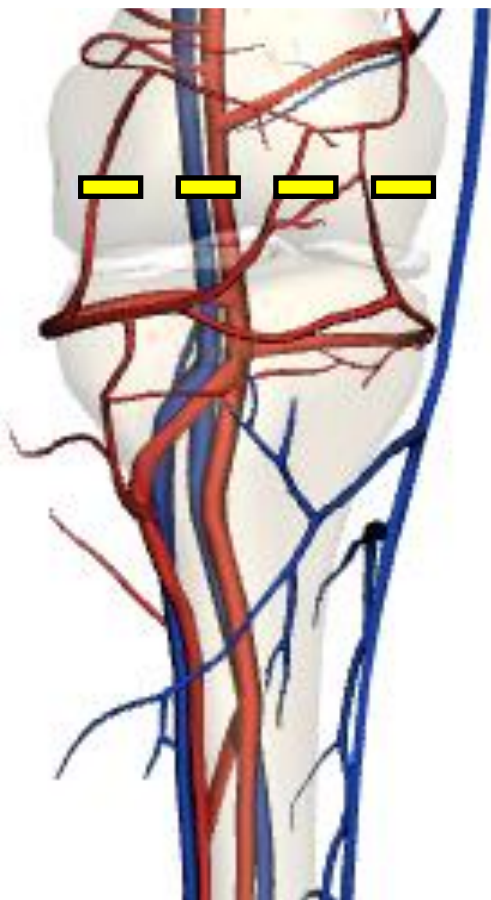


**Sonda lineal  
d'alta freqüència  
(7,5-16 MHz)**



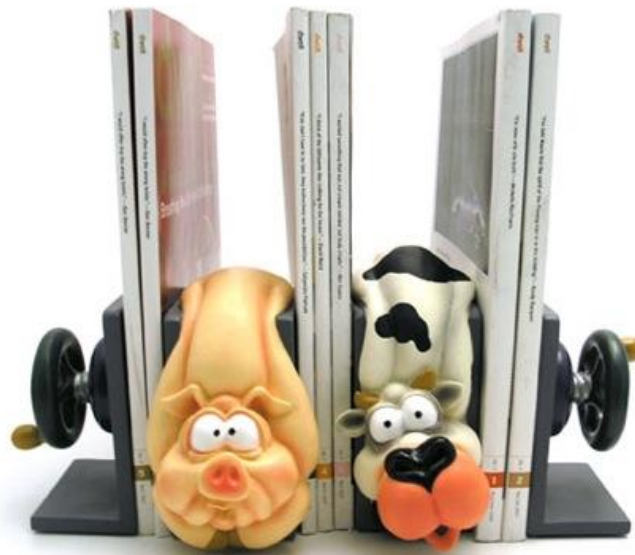
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# Tècnica

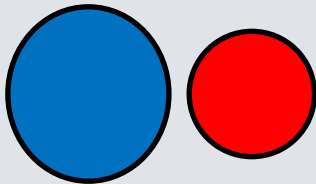
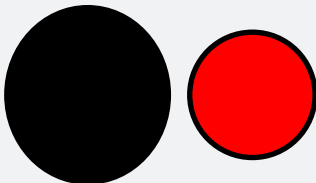
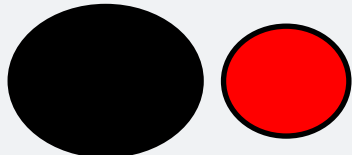
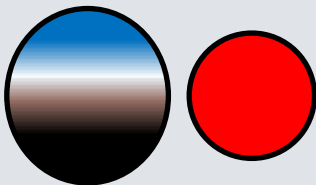


# Signes ecogràfics de TVP

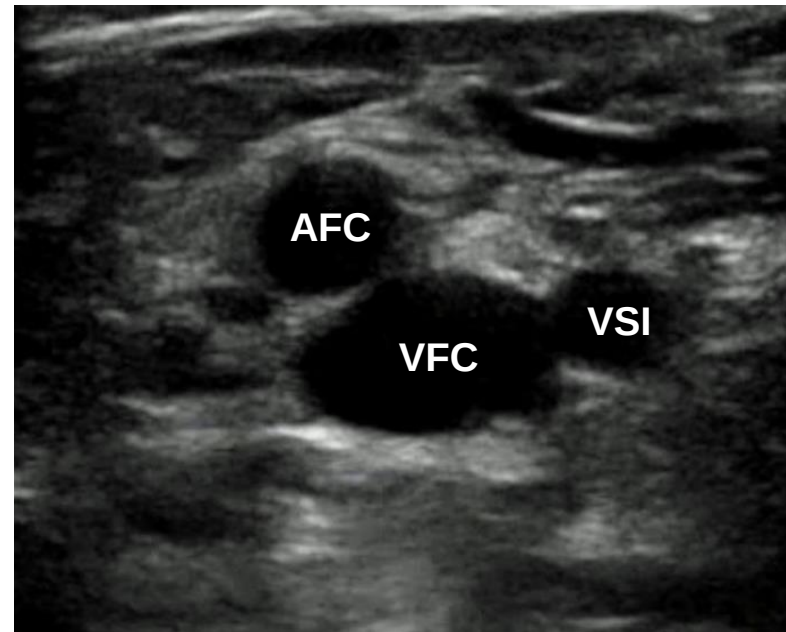
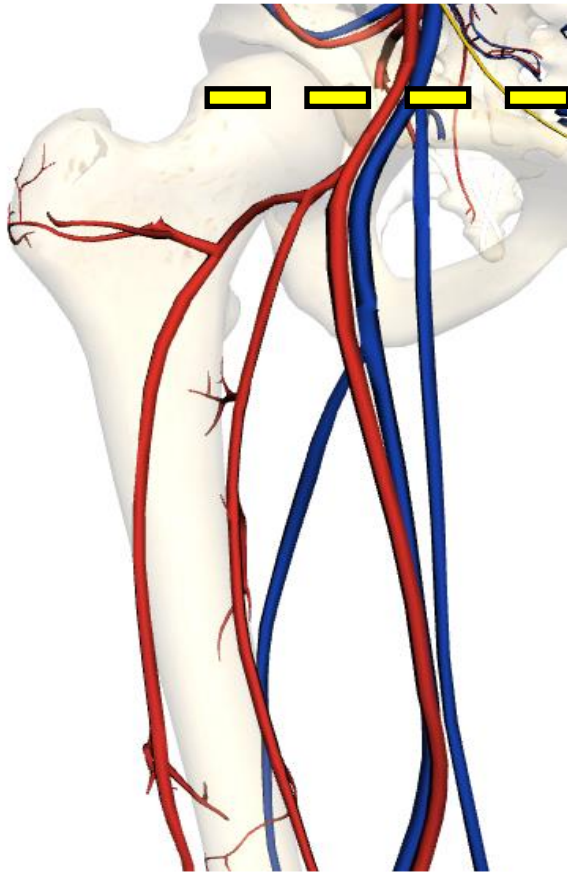
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**Compressibilitat és el signe més fiable**

|                   | Sense compressió                                                                     | Amb compressió                                                                        |
|-------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Normal            |    |    |
| Ocupació completa |    |    |
| Ocupació parcial  |  |  |

# Compressibilitat

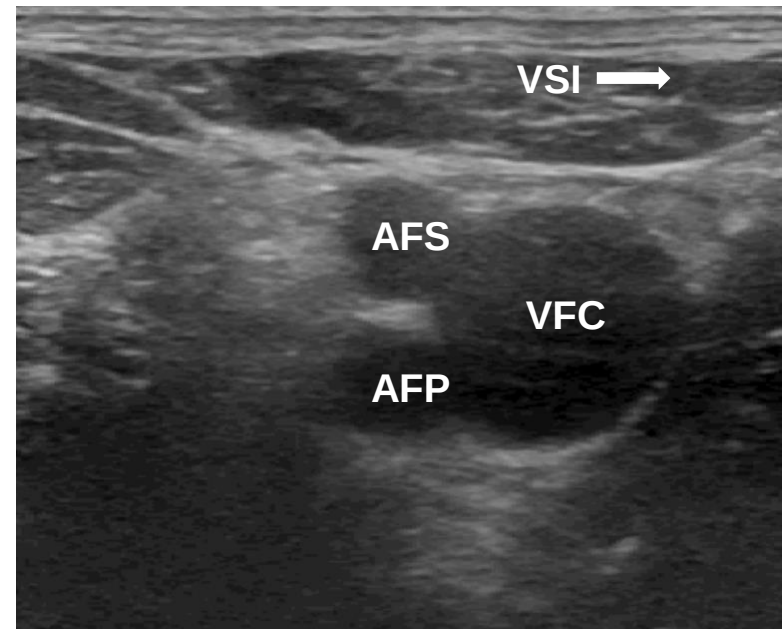
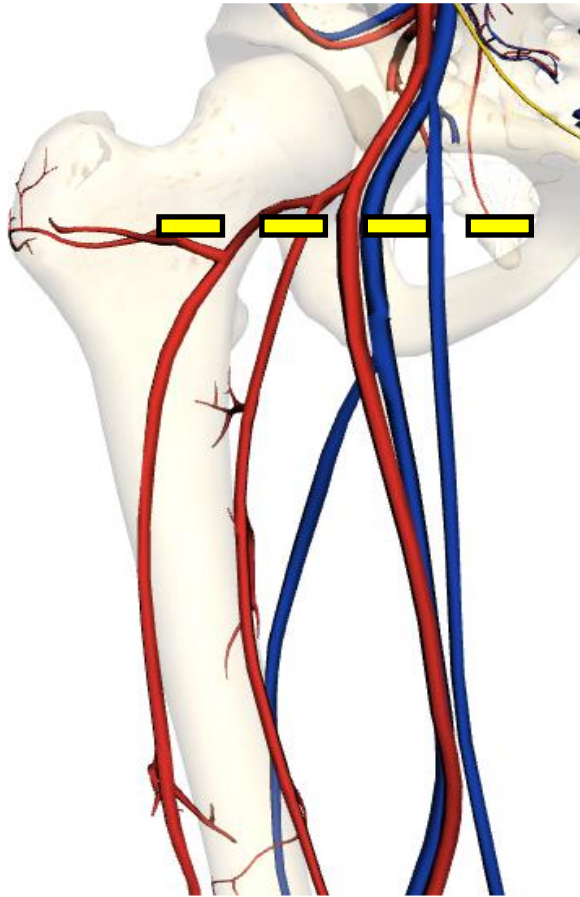


# Compressibilitat

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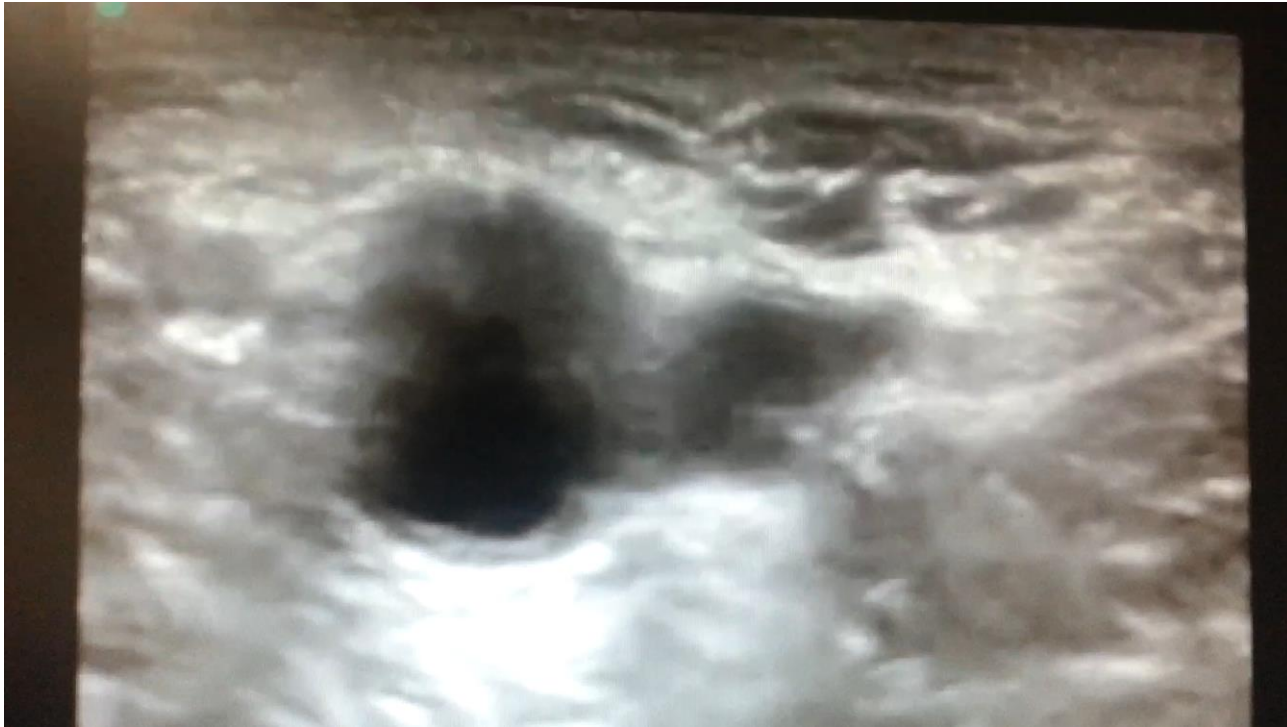


# Compressibilitat

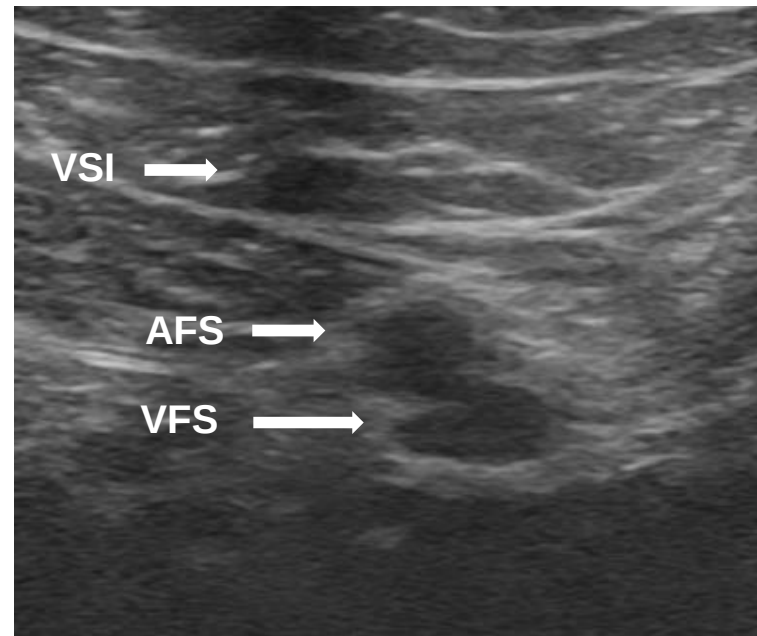
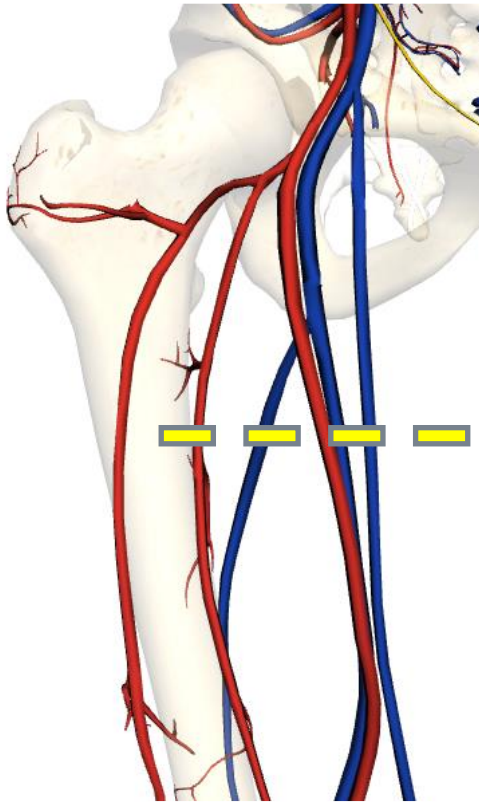


# Compressibilitat

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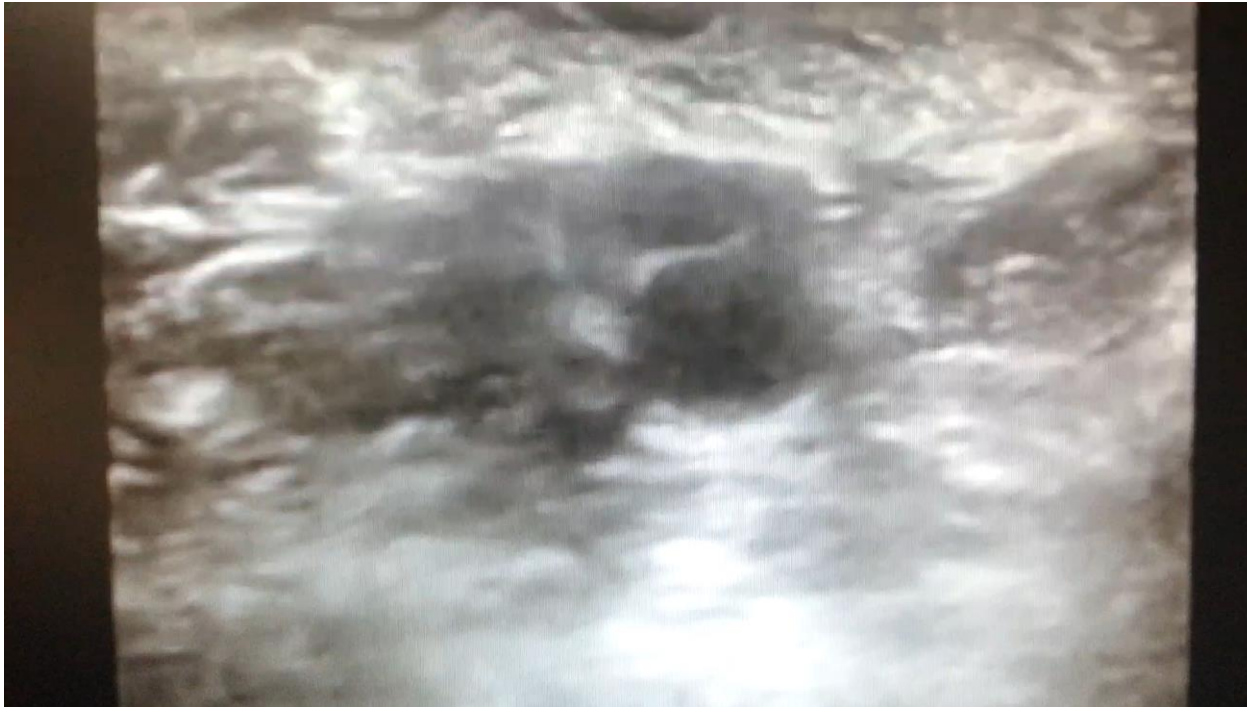


# Compressibilitat



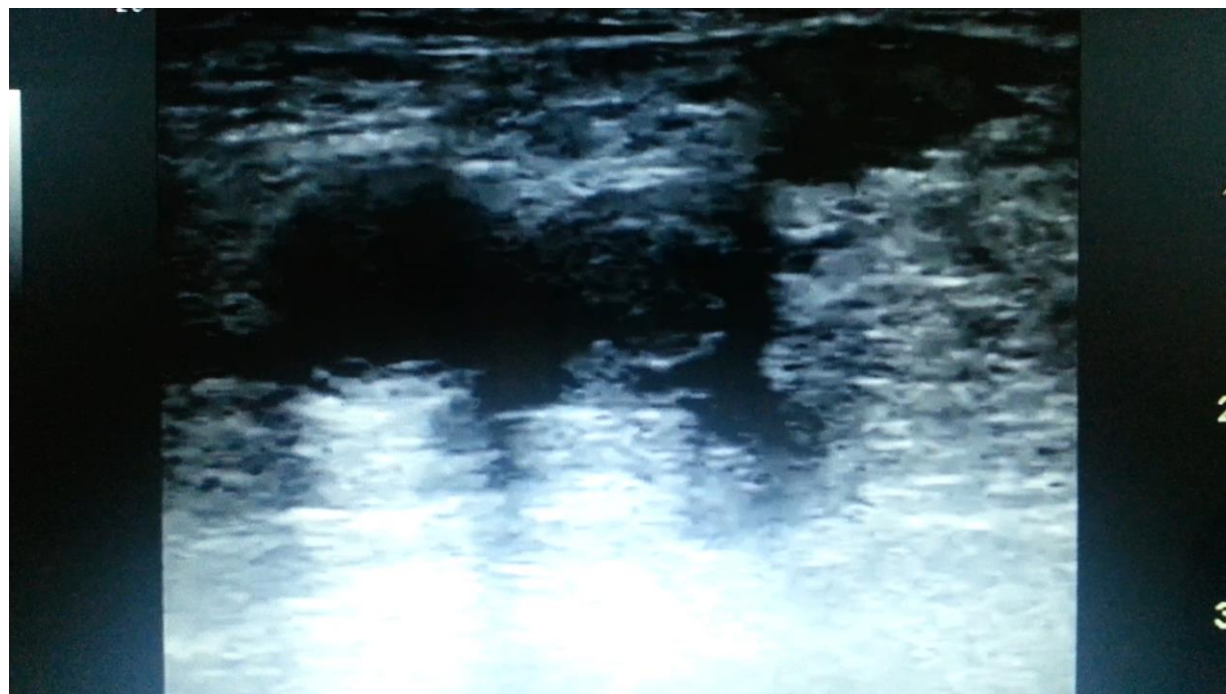
# Compressibilitat

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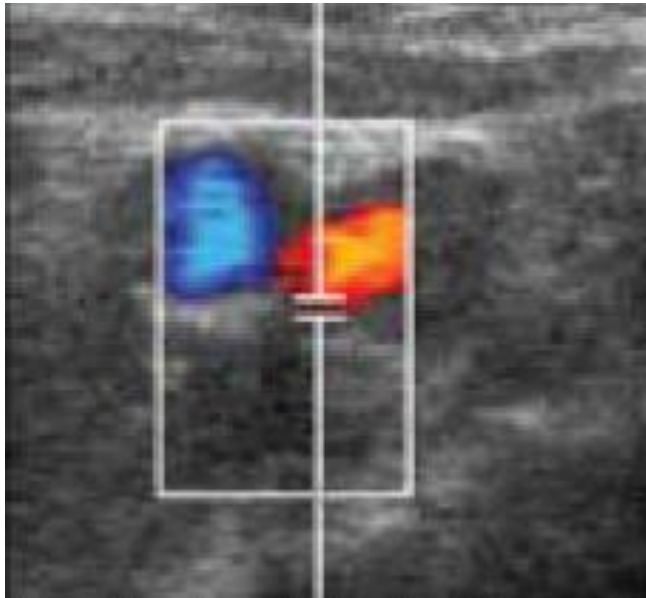
# Trombosi femoral comú

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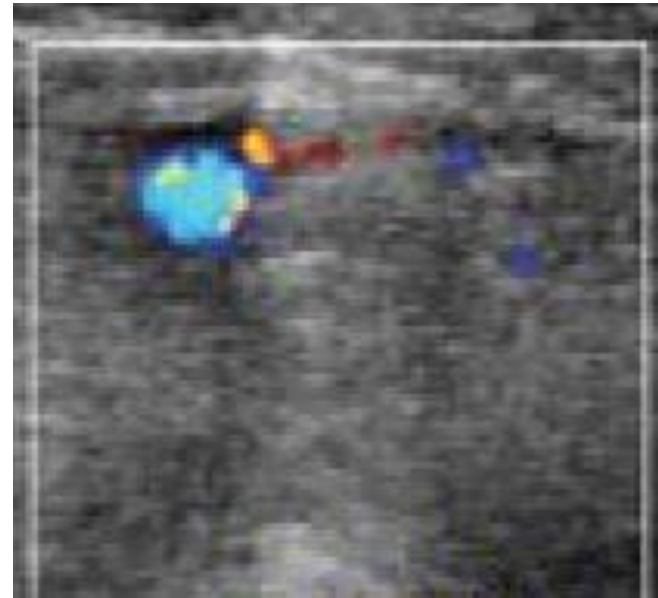


# Doppler color

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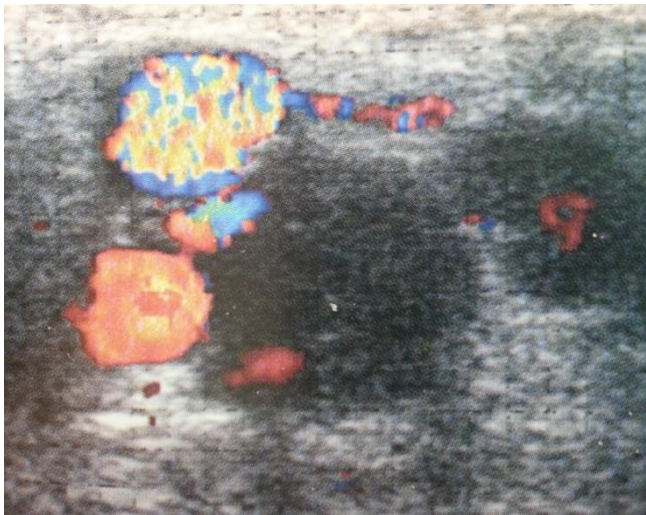
**Normal**



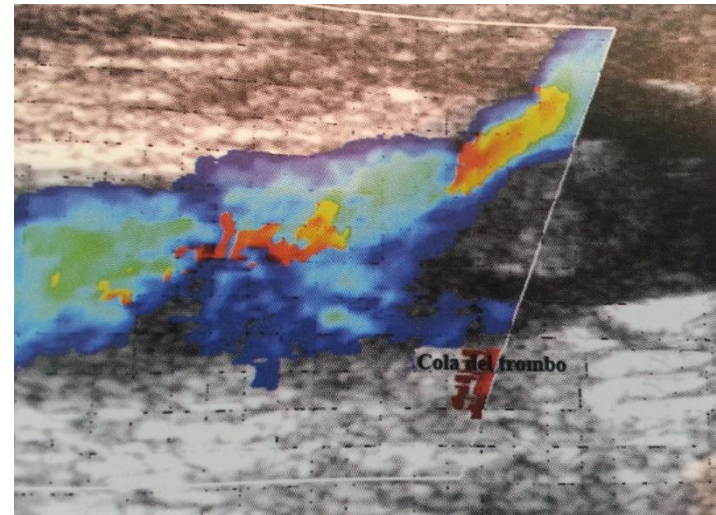
**TVP completa**

# Doppler color

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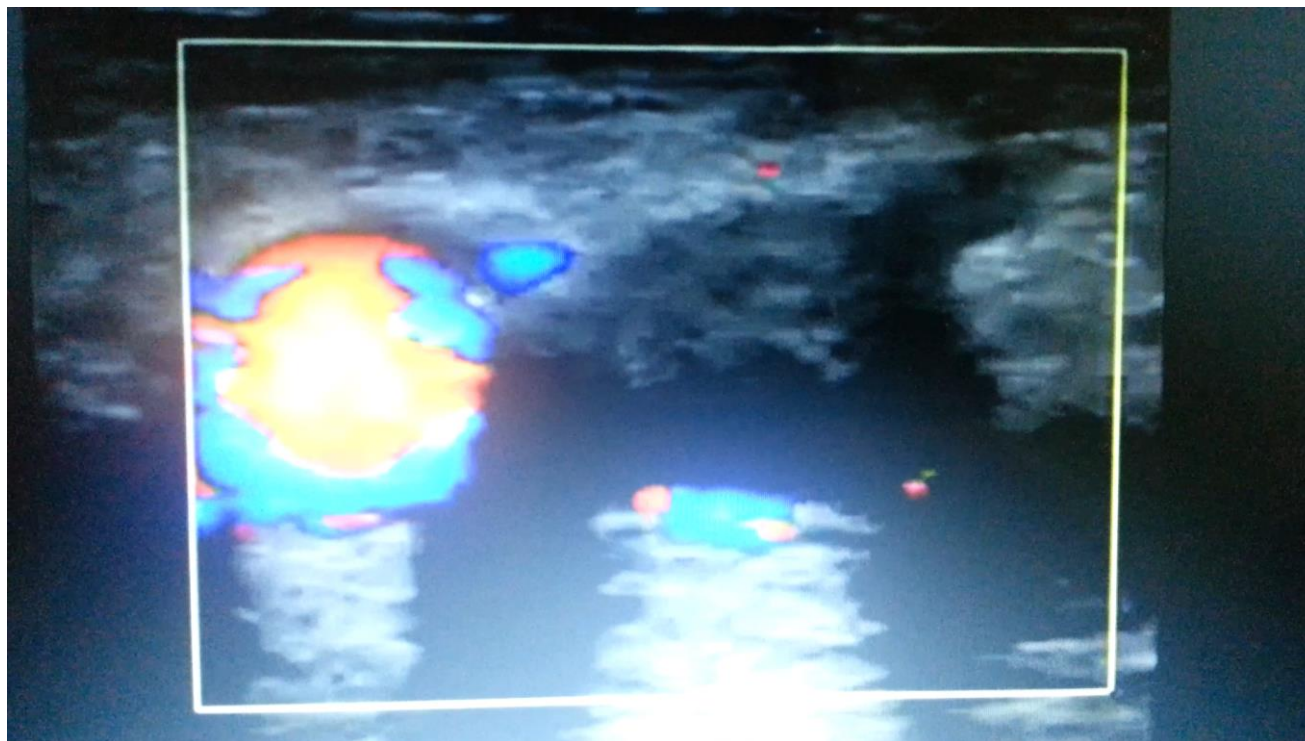
Transversal



Longitudinal

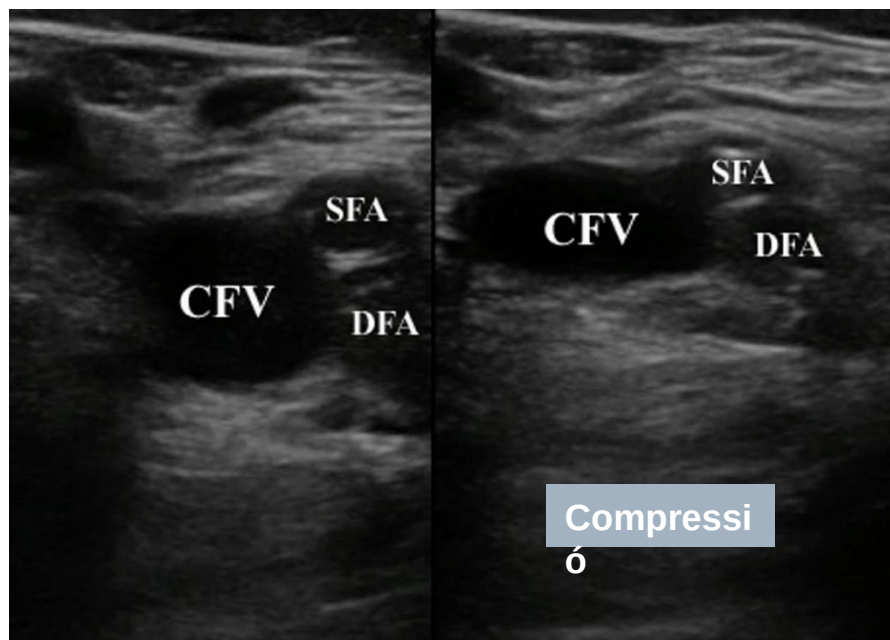
# Trombosi femoral comú

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# Ecogenicitat

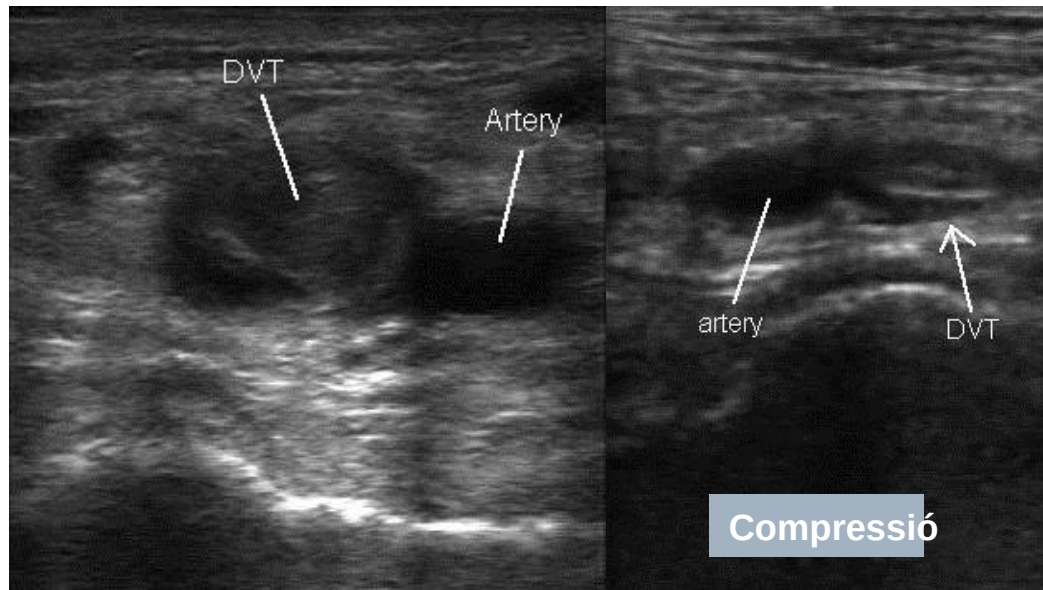
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**Hipoecogeneïtat**

# Ecogenicitat

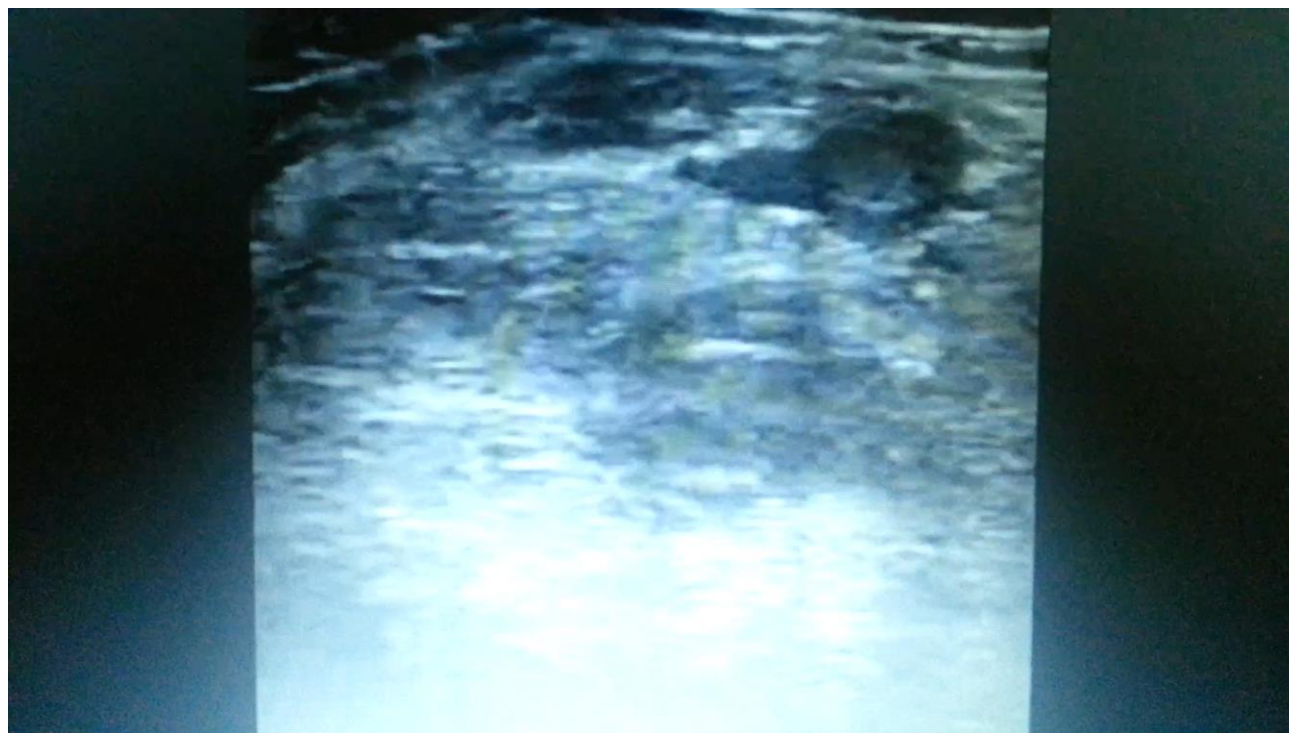
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**Hiperecogeneïtat**

# Trombosi poplitia

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