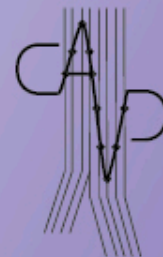




CONTROVERSES ET ACTUALITÉS EN CHIRURGIE VASCULAIRE CONTROVERSIES & UPDATES IN VASCULAR SURGERY

FEBRUARY 7-9 2019

MARRIOTT RIVE GAUCHE & CONFERENCE CENTER
PARIS, FRANCE WWW.CACVS.ORG



Differential diagnosis in superficial venous malformations

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Disclosure

Speaker name:

....Bisdorff Bresson Annouk

.....

I have the following potential conflicts of interest to report:

Consulting

Employment in industry

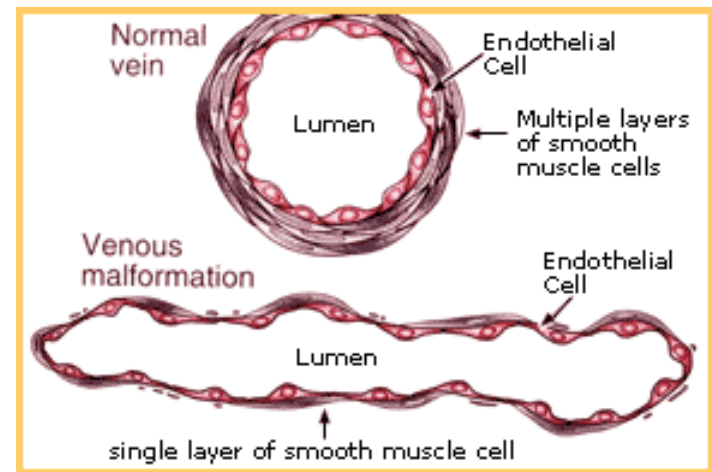
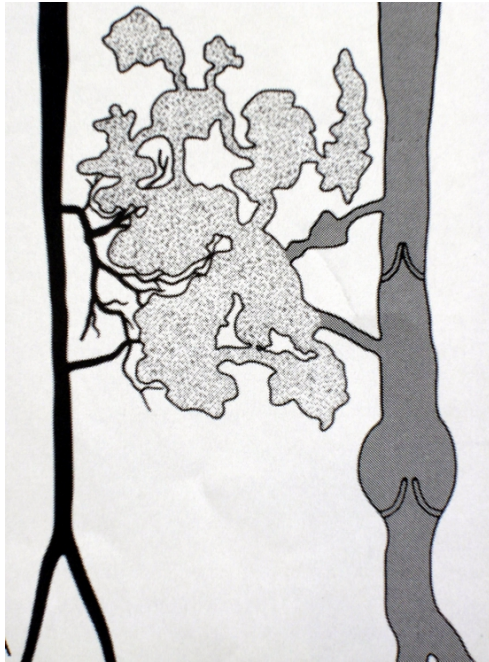
Shareholder in a healthcare company

Owner of a healthcare company

Other(s)

I do not have any potential conflict of interest

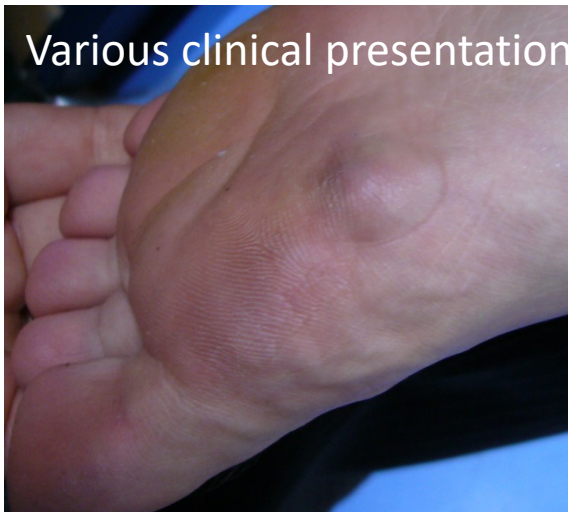
Venous malformations= slow flow ++



Sporadic but < 1 % inherited

Clinically **blue**, soft depressible, **if** they are **cutaneous** but they can be responsible of a simple bump or hyper / hupotrophie of an extremity

Various clinical presentation VM

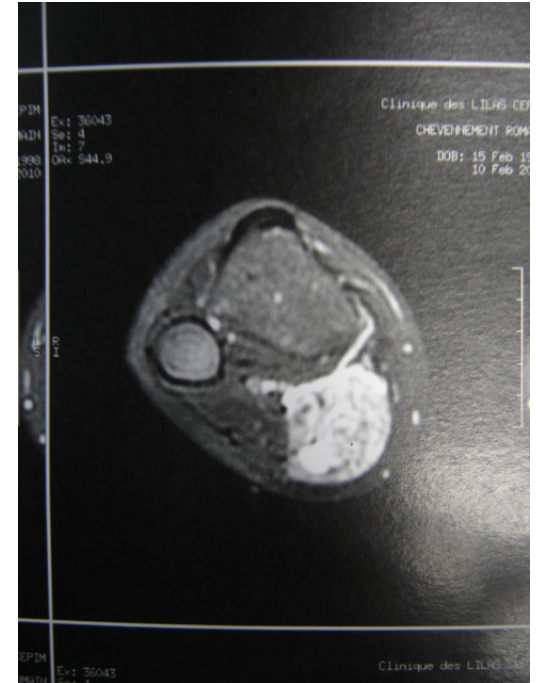
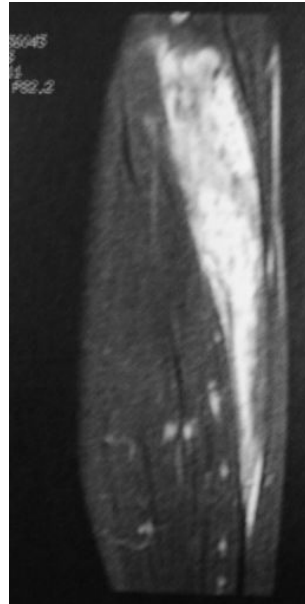




VM : depressible lesion / palpable phlebolithes

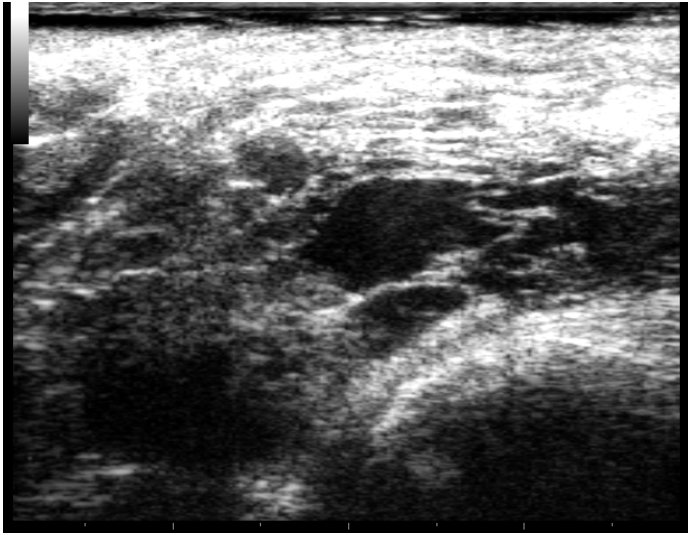


VM : Amyotrophy / tendon retraction 2 d pain and intralesional thrombosis

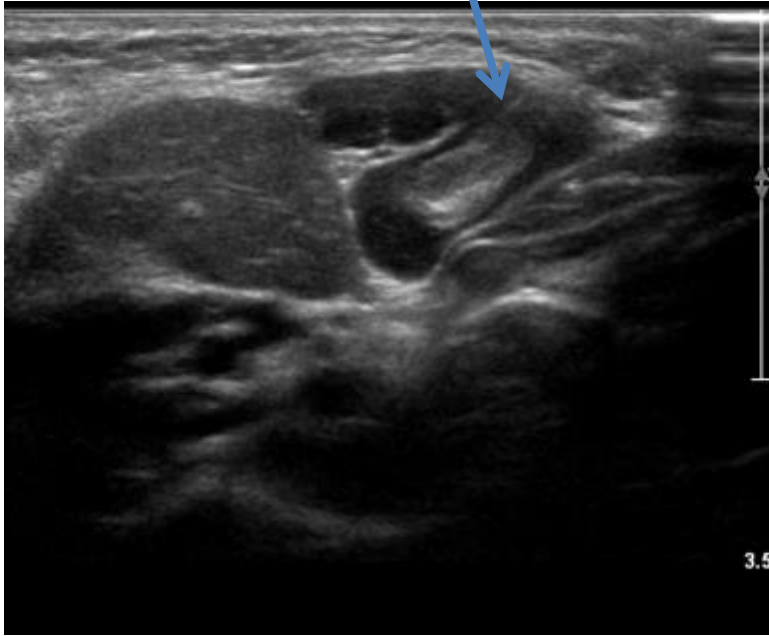
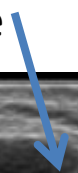




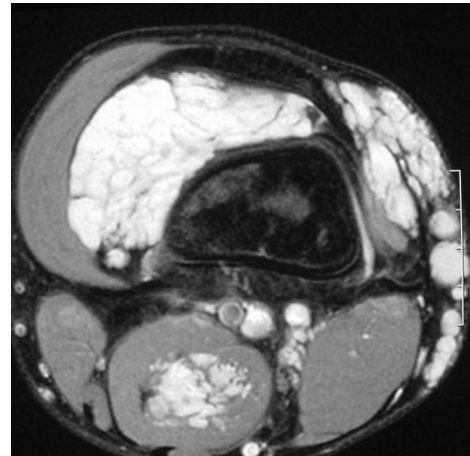
Mixte VM



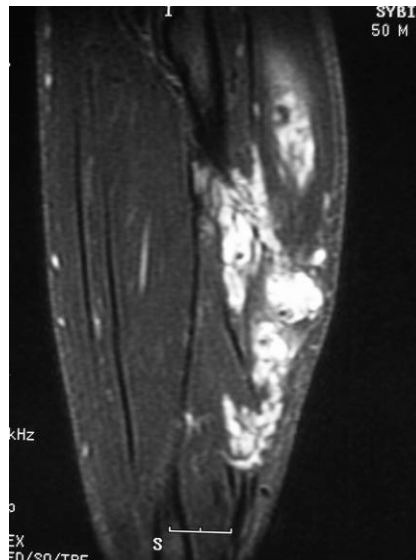
Phlébolithe



VM Imaging



**IM T2 fat sat hypersignal
+/- lobulated lesion + CA +
Phleboliths**



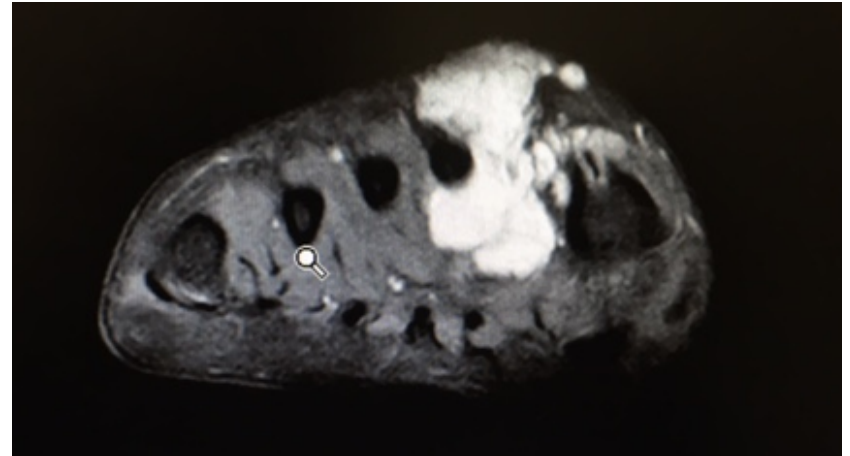
ALL Hyper T2 lesion are not always VM 's ...

To make an accurate VM diagnosis : TRIADE

1. **Clinical History** : When did the : lesion / symptoms appear ? Birth ? Adolescence?
2. **Clinical exam** : Bluish hue ? Depressible ? Palpable thrombus ?
3. **Imaging** :
 - Ultrasound +++ : VM pouches ? Depressible ? Venous flow ? Phlebolithes /thrombus
 - MRI VM carateristics: HypoT1 signal , HyperT2 +/- phlebolithes, Enhancement

If one of these 3 arguments is **inconsistent** : Biopsy

Benign / Malignant Tumors

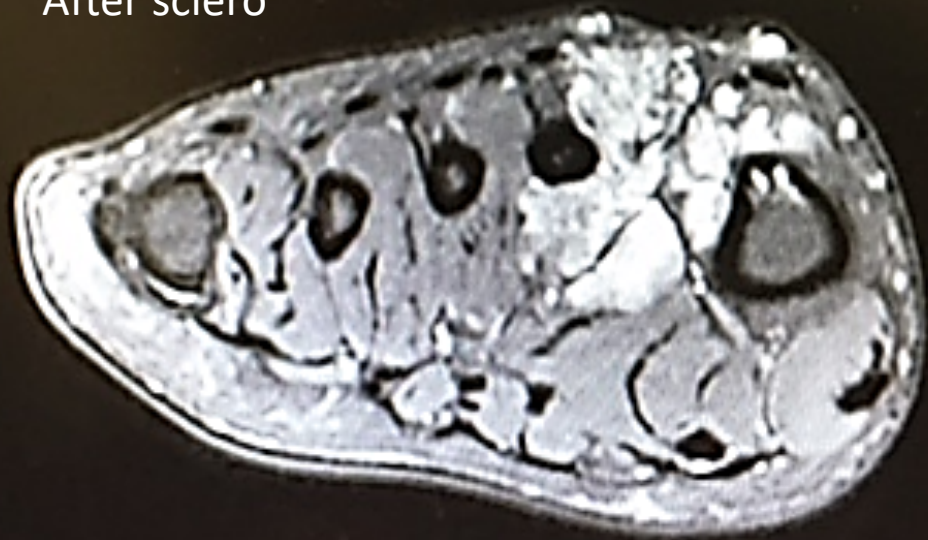


20 y/o female congenital lump dorsum foot ,
soft depressible, painfull
Prior History of surgery

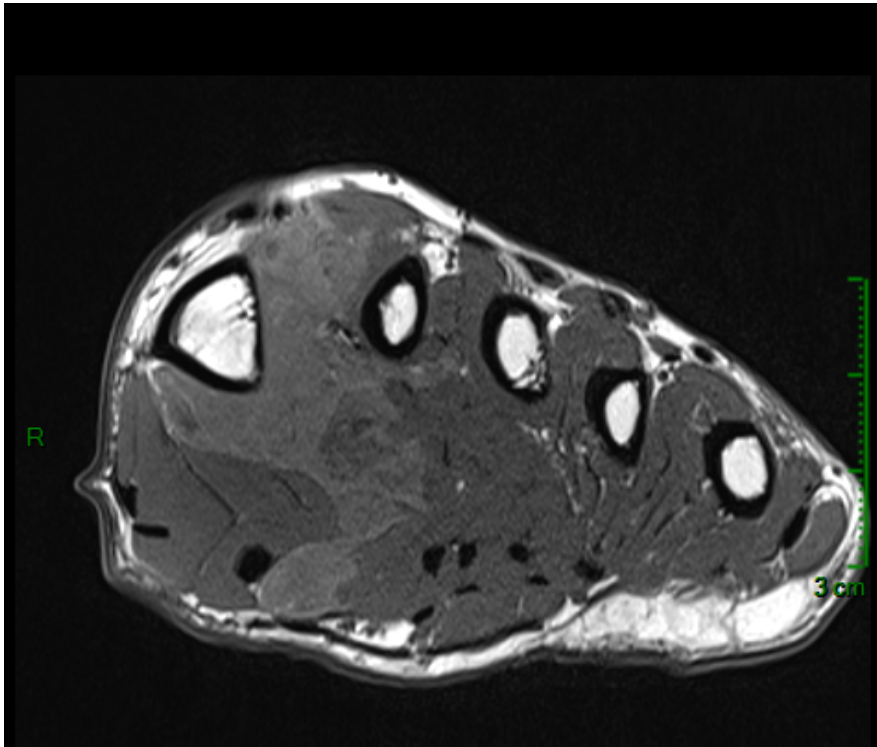
Before



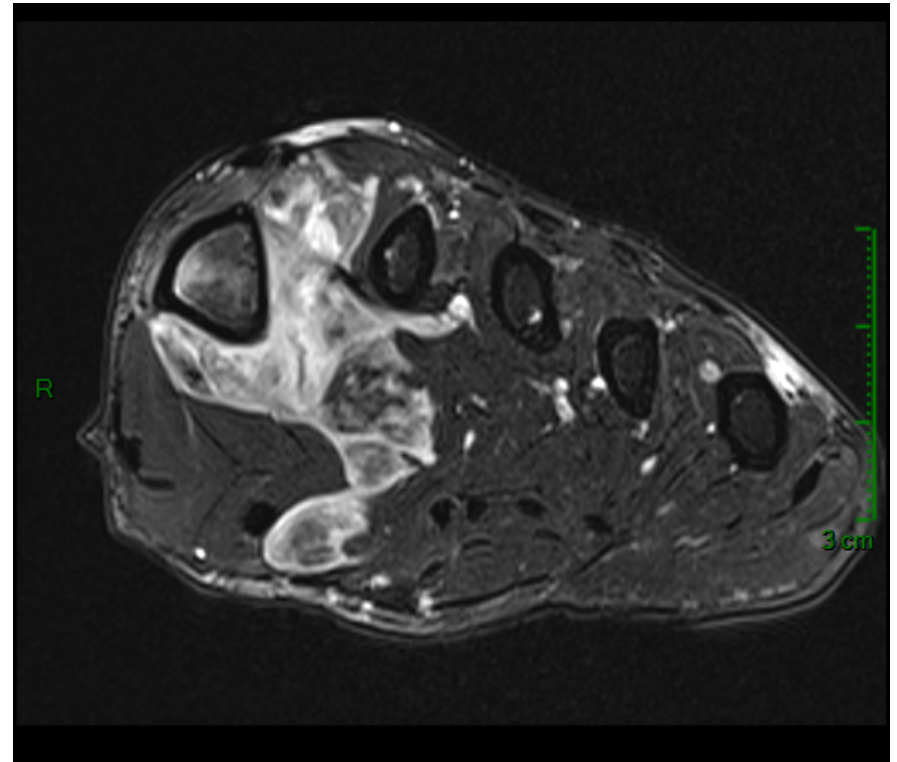
After sclero



33 y/o F, pain since age 7,
increasing since 2 years ,
non depressible lesion

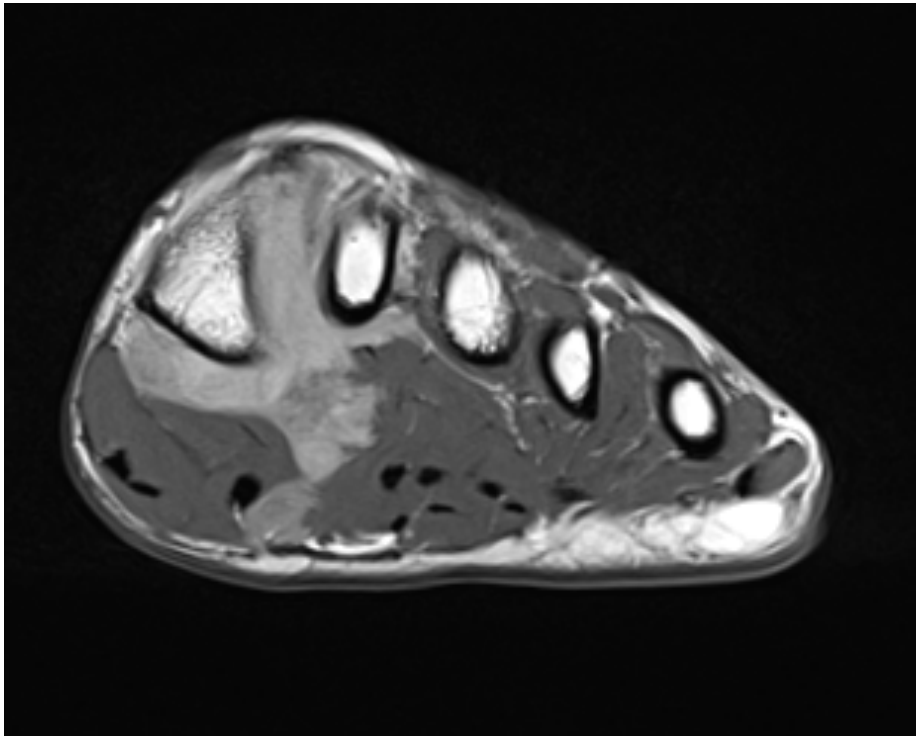


T 1

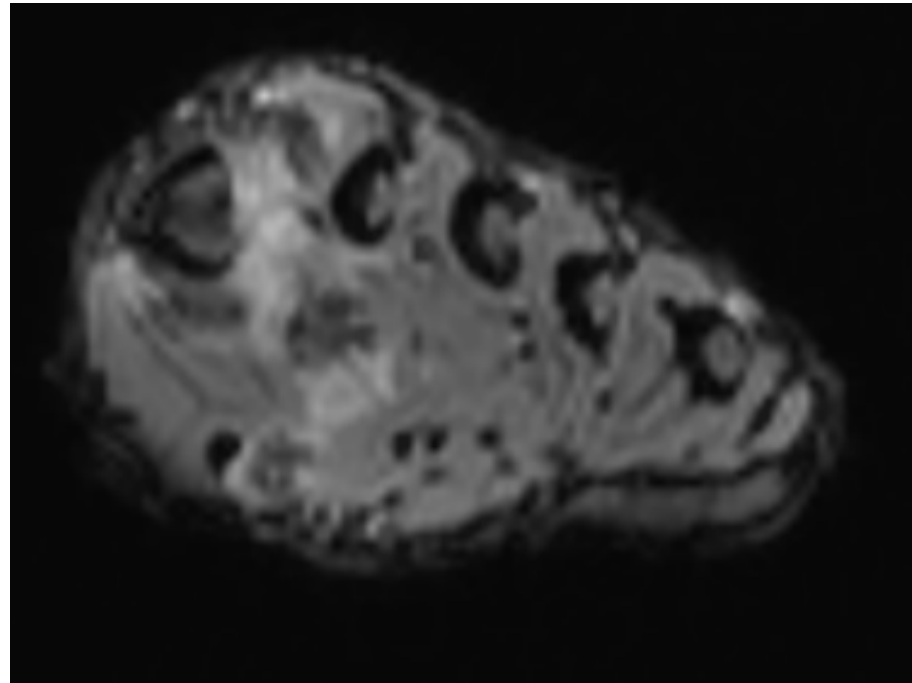


T 2

T1 gado



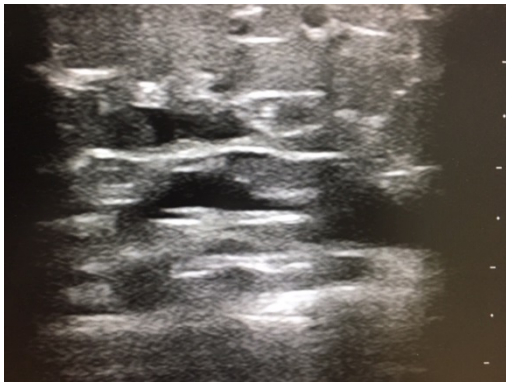
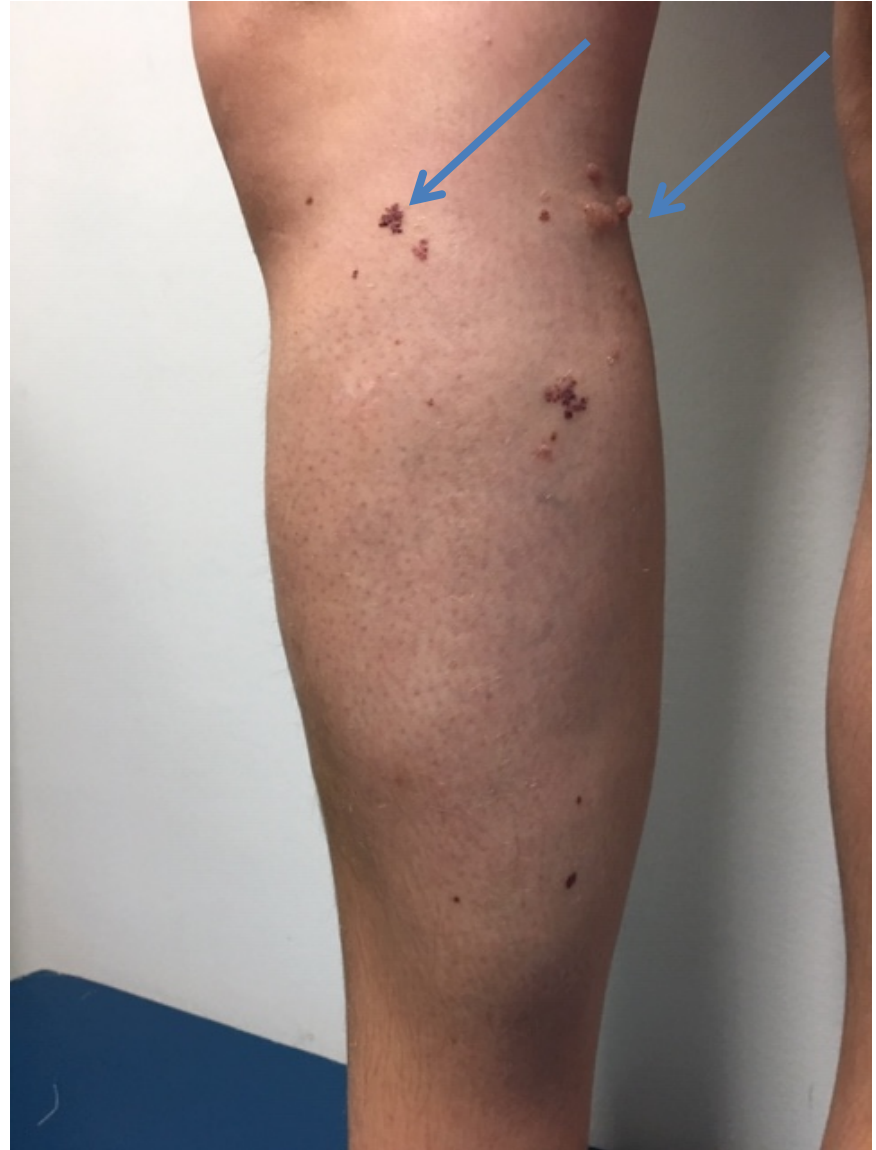
EG

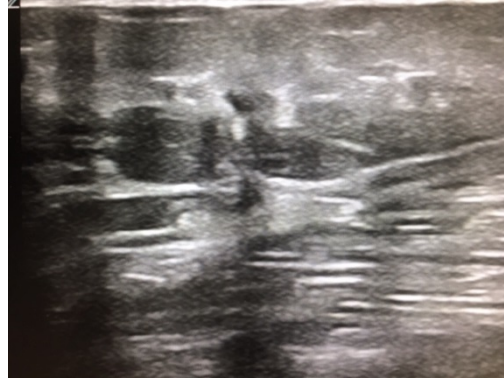
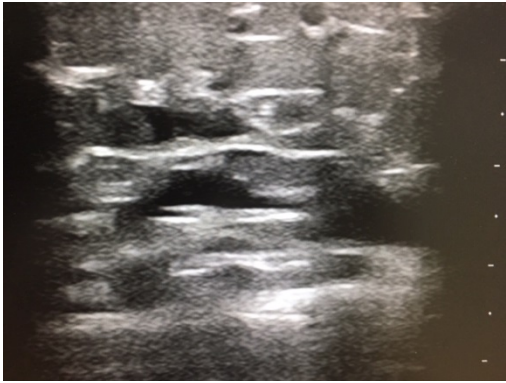


Myxo inflammatory fibroblastic Sarcoma(MIFS)

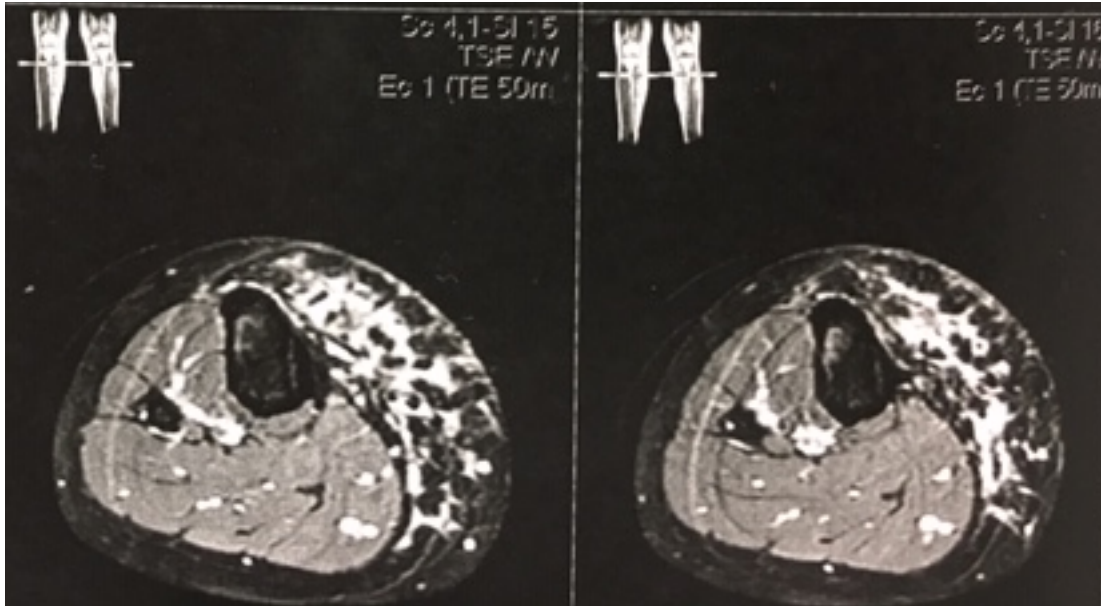
20 y/o female with a **congenital** skin lesion , partially depressible , inflammatory episodes

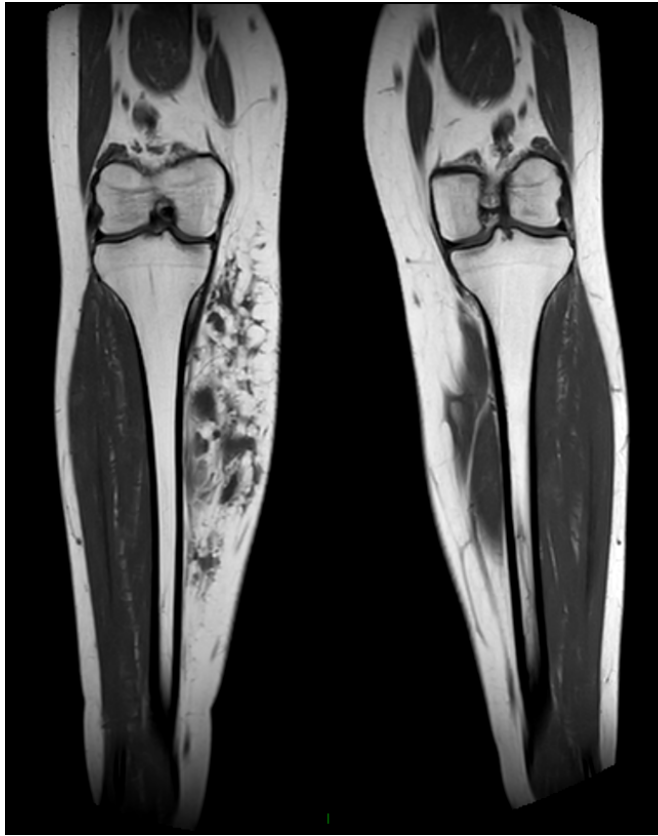
Bluish stain + vesicles



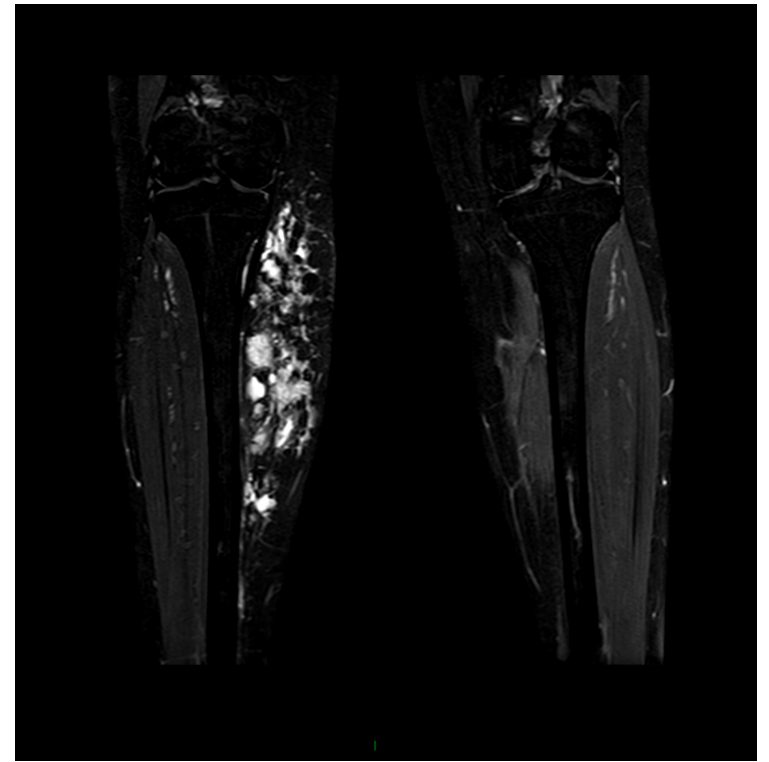


Partially depressible lesion



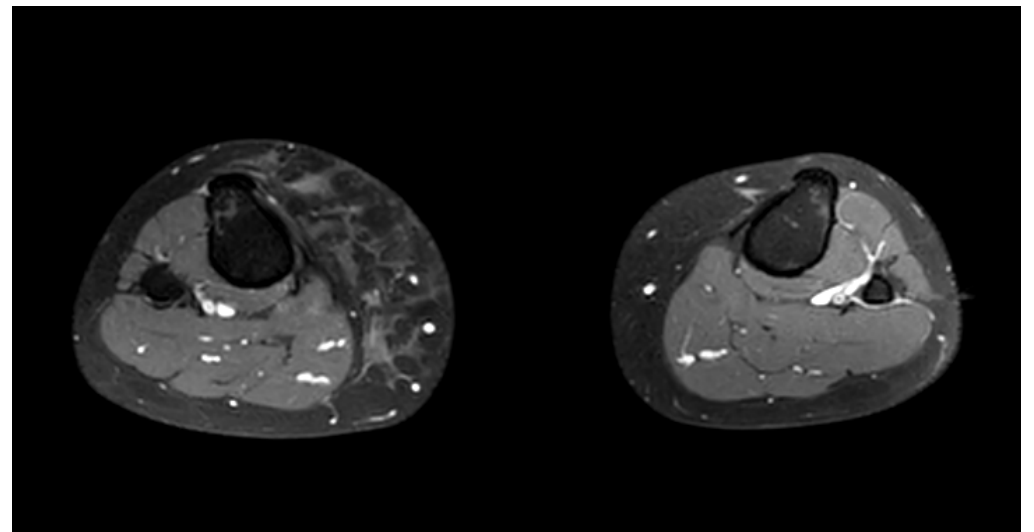


T2 Fs
microcystique
lesions

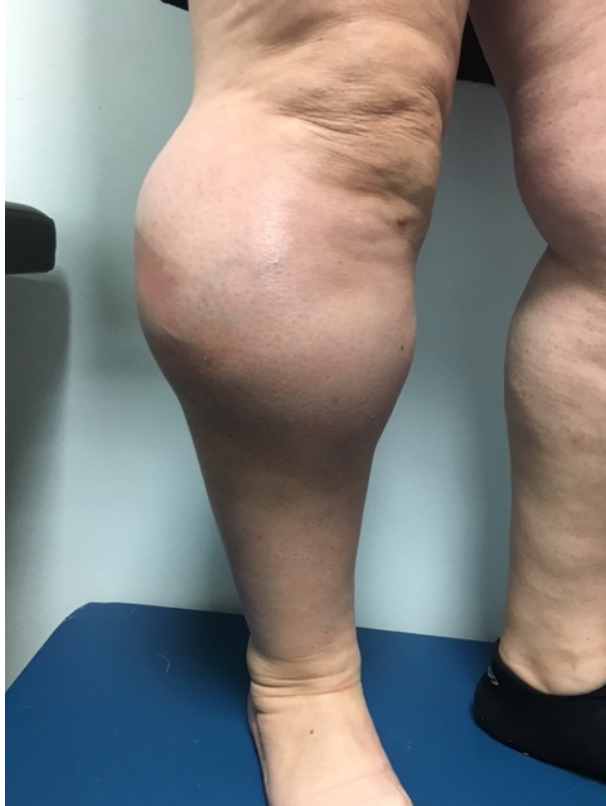


T1 , hyposignal

= Veno- lymphatique subcutaneous
malformation(VLM)

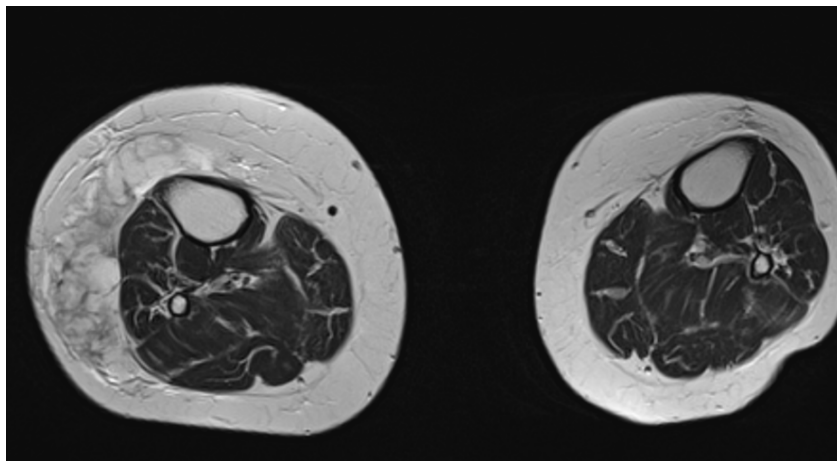


T1 gado , no enhancement



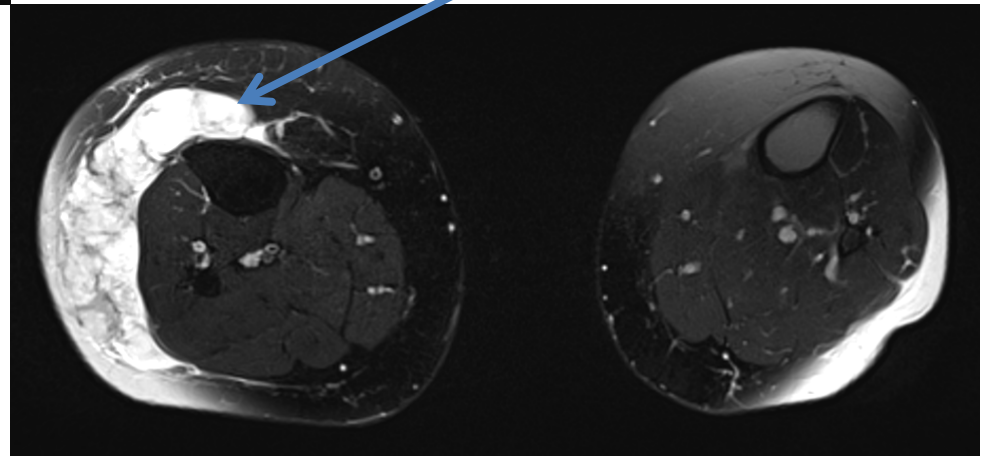
US : no veno-lymphatic pouches

50 Y/o female , lesion **appeared** in 2008 , surgery , then reappeared in July 2017 and is **increasing since** , Clinical exam : hard non depressible lesion

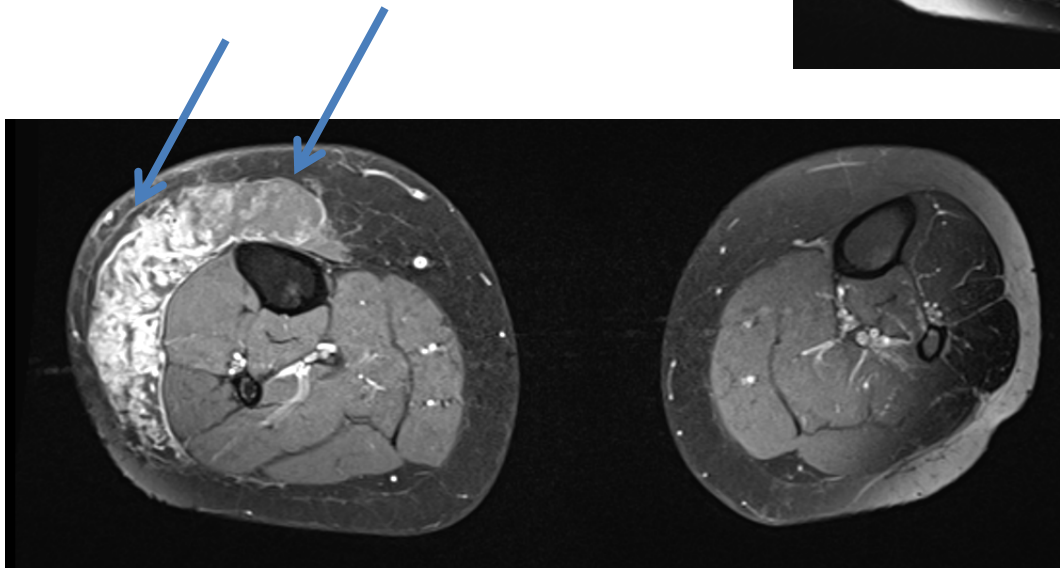


T1 : heterogenous hyperT1 signal

T1 gado ; Heterogenous uptake



T2 fs



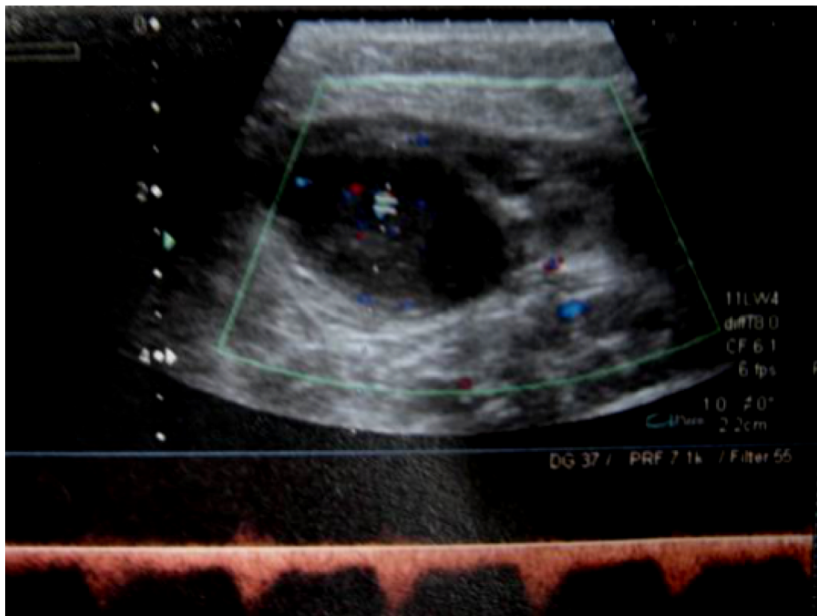
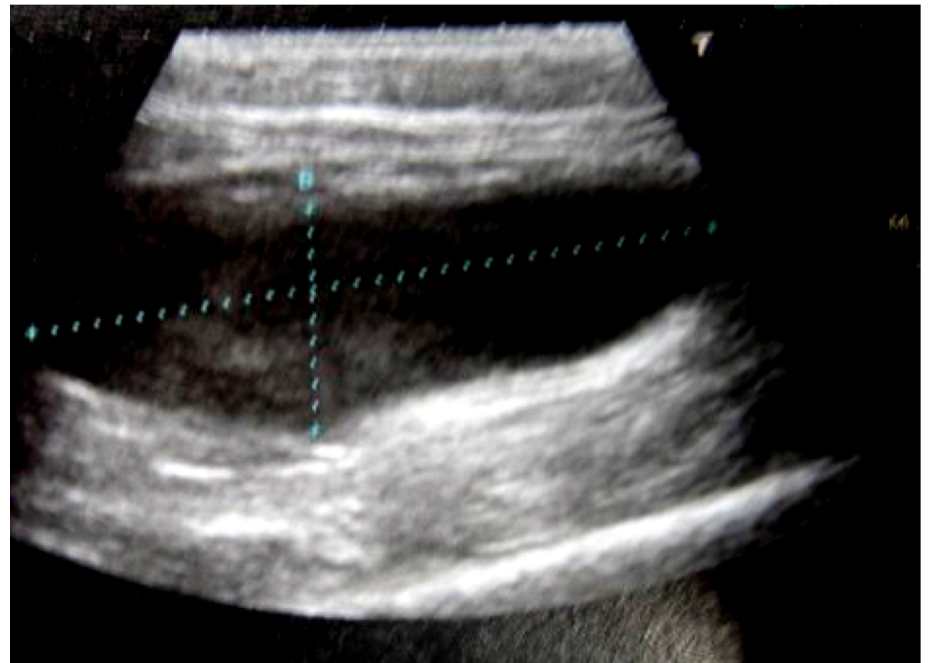
Myxo inflammatory fibroblastic Sarcoma(MIFS): Rare tumor

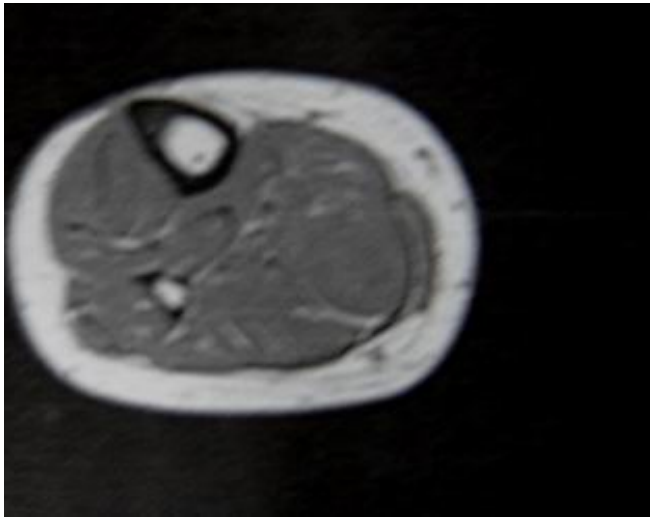
- Adults +/- 40 Y/o ,
- LE ++
- high local recurrence rate
- Metastasis low rate



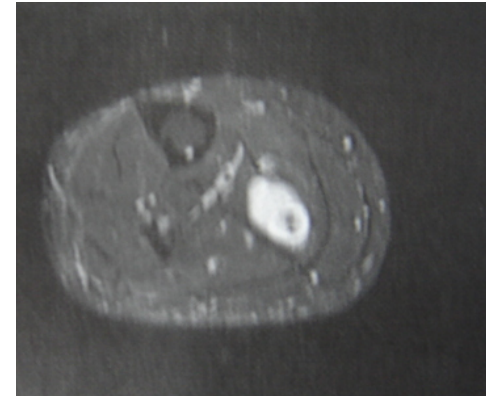
50 y/o femal ,
lesion and pain
appeared
suddenly

US= Heterogenous
lesion , no flow





MRI = confusing
HyperT2 lesion
« too well
delineated » to
be a VM »



Desmoid tumor



Solitary Fibrous Tumor

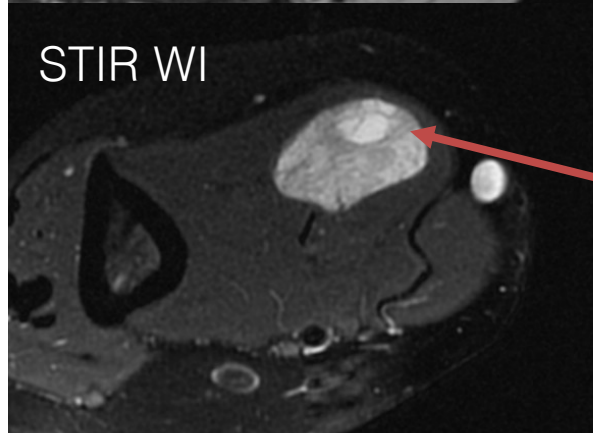
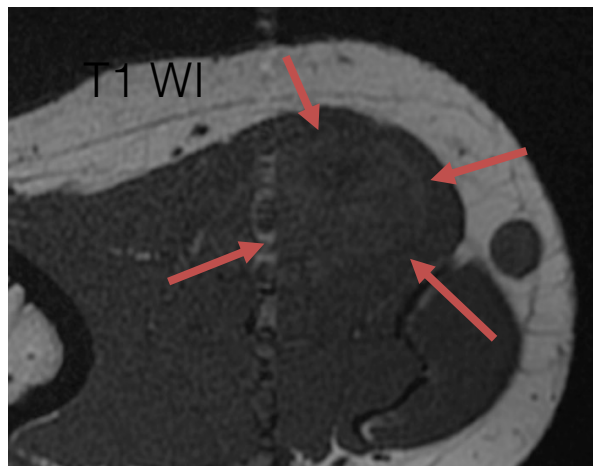
Radiological findings

MRI :

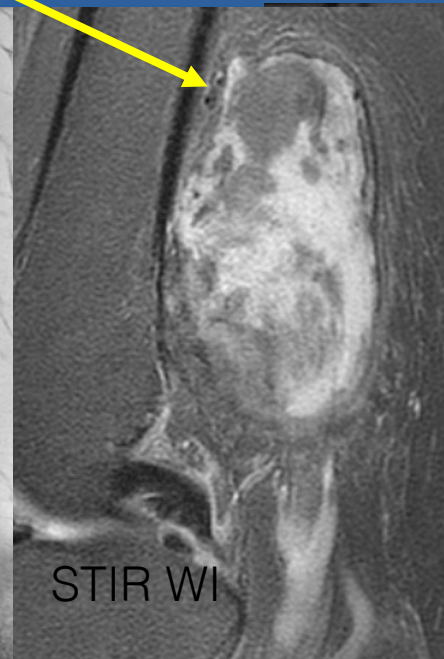
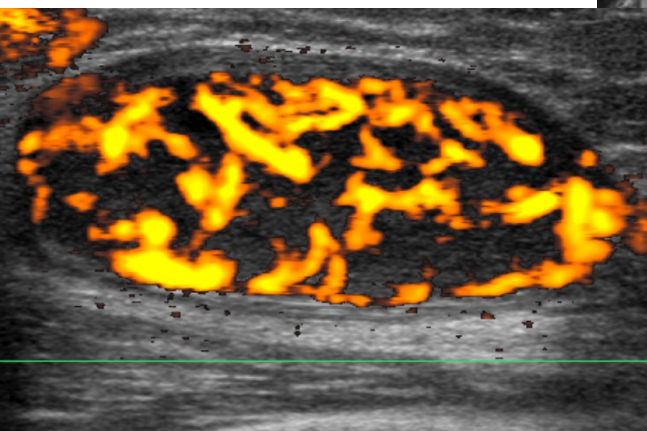
- Well-defined soft tissue mass
- Low or iso intense on T1-WI
- Variable on T2-WI: black-and-white-mixed pattern : necrosis, hemorrhage, myxoid zone

Flow voids

- Avid and heterogeneous gadolinium enhancement
- Large collateral feeding vessels (35%)



US= tissular vascular lesion



ANGIOSARCOMA

M, 45 YO

Clinical presentation

- Rapidly growing painful mass
- M/F : 2/1
- Peak in the seventh decade
- Recent hemorrhage, anemia or coagulopathy

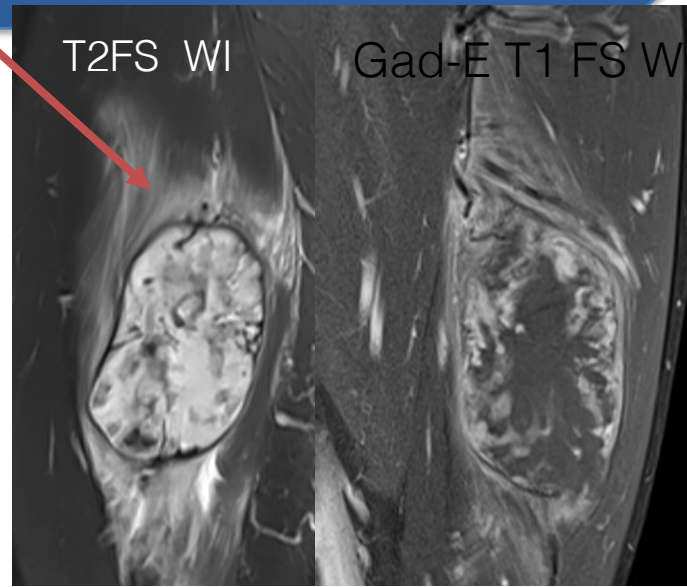
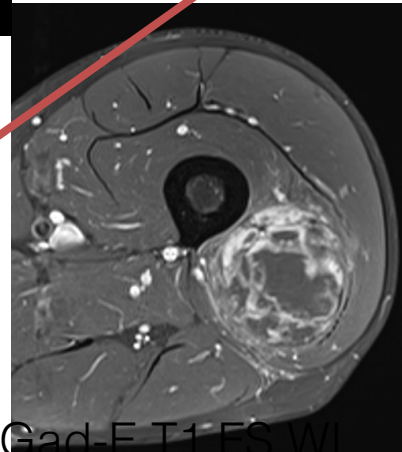
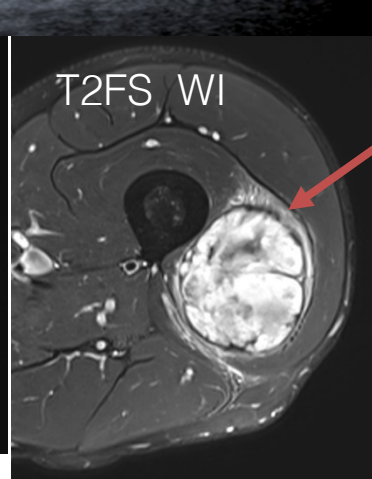
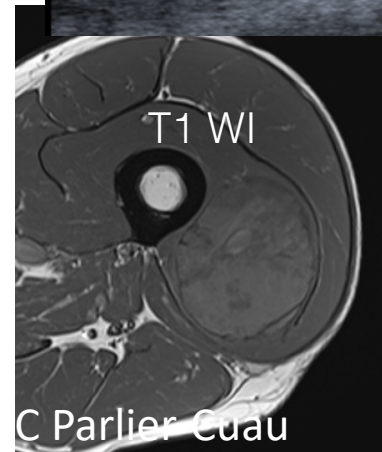
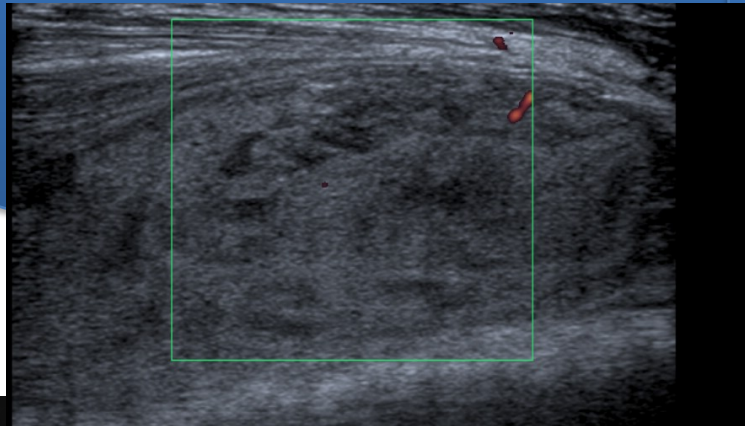
Radiological findings

US : Hypoechoic, heterogeneous and vascularized solid mass with irregular margins

MRI :

Heterogeneous SI on T1- and T2-WI and post gadolinium images

- Serpentine vessels
- Avid early arterial enhancement
- **Flow-voids+++**
- **Surrounding edema**



NODULAR FACIITIS

Clinical presentation

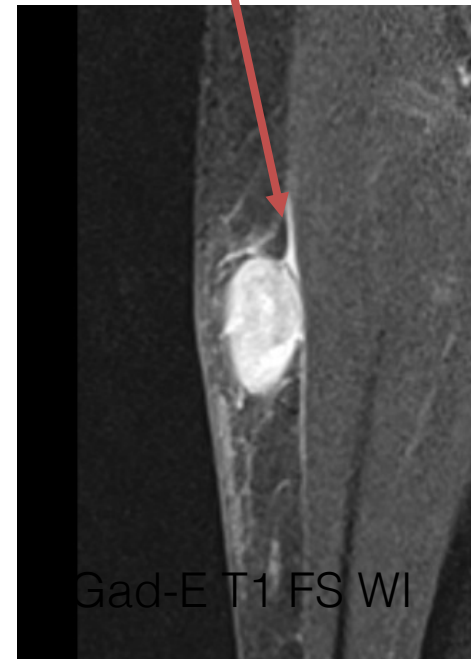
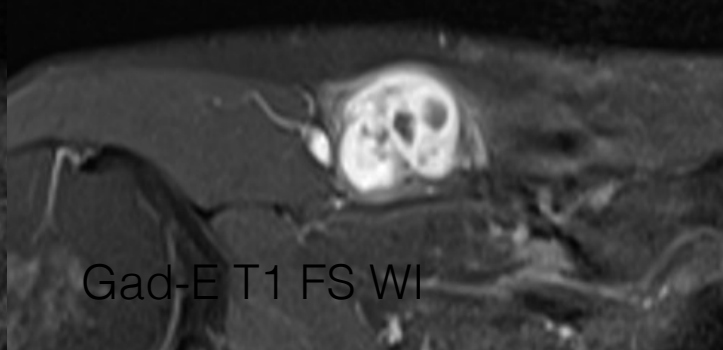
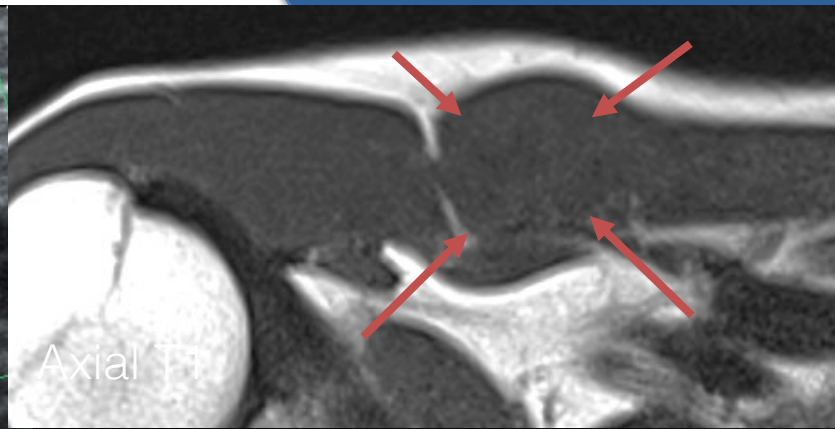
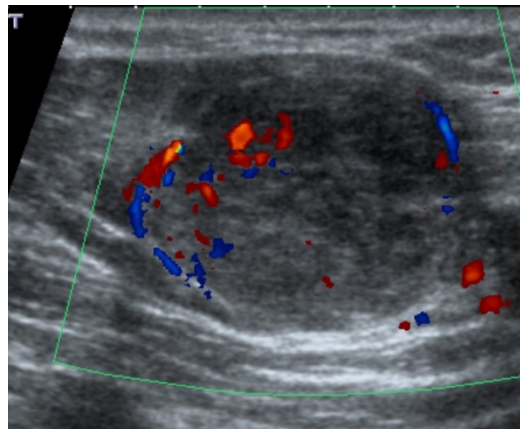
- Age: 20 - 40
- Rapidly growing painless mass
- Uper extremity (46%), volar forearm
- Size 2 cm or smaller (70%)

Radiological findings

Radiograph and Ctscan : Rare calcifications

MRI :

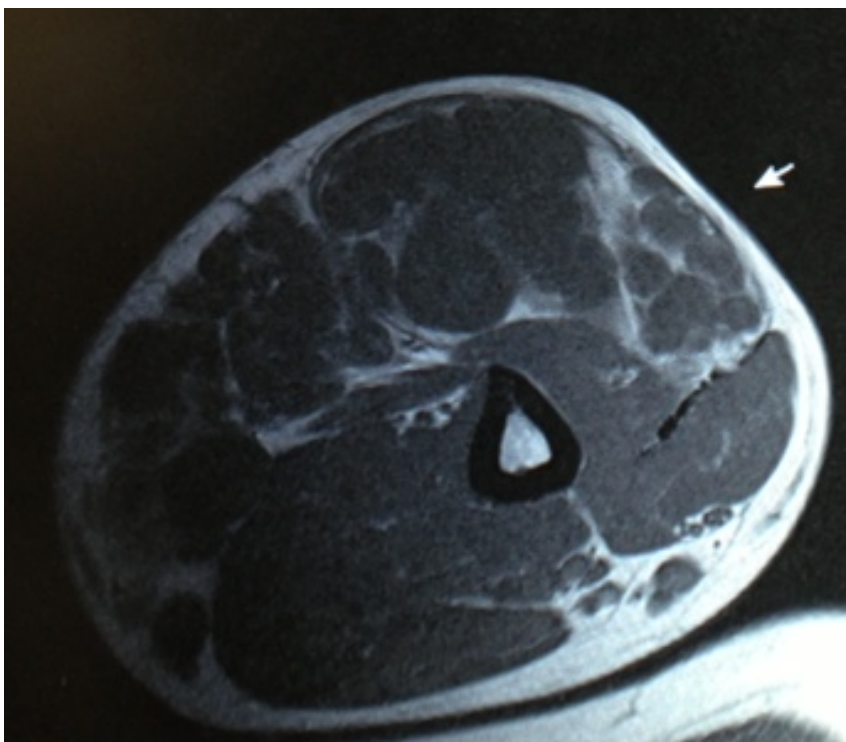
- Iso SI on T1- and Hyper SI and heterogeneous on T2-WI with possible central necrosis
- Diffuse gadolinium enhancement
- Linear extension along the fascia (**fascial tail sign**)++++





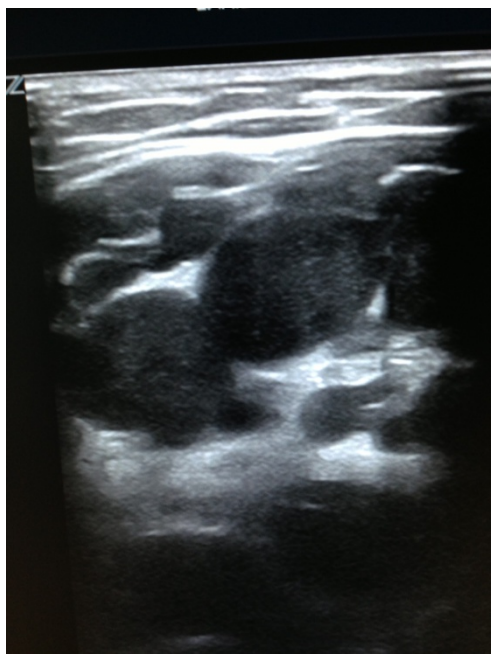
25 y/o male , 3 years ago **appeared** a lump
Prior history « skin lesion since infancy « Angioma » »

Clinical Exam : **non depressible** lesion

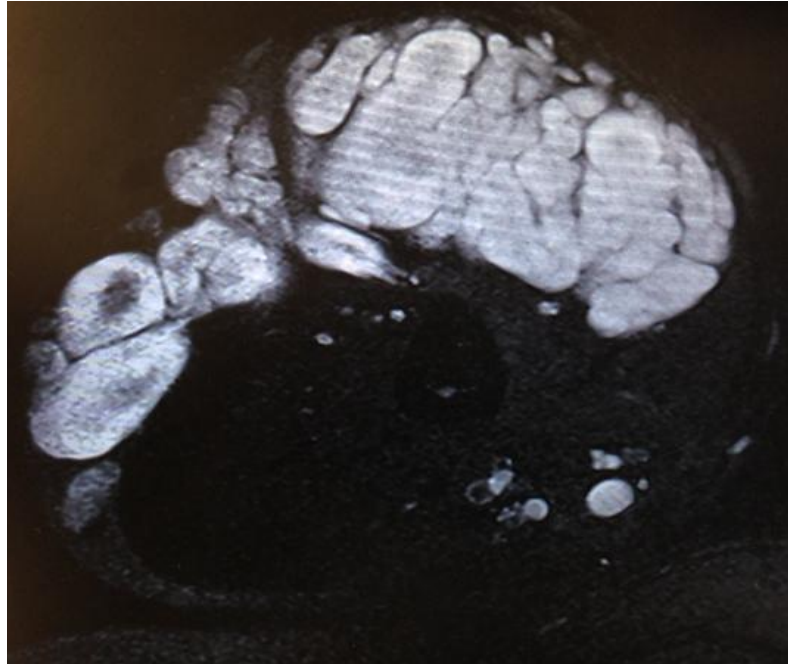


T1 axial

US: non
depressible
hypoechogetic



T 2 fat sat



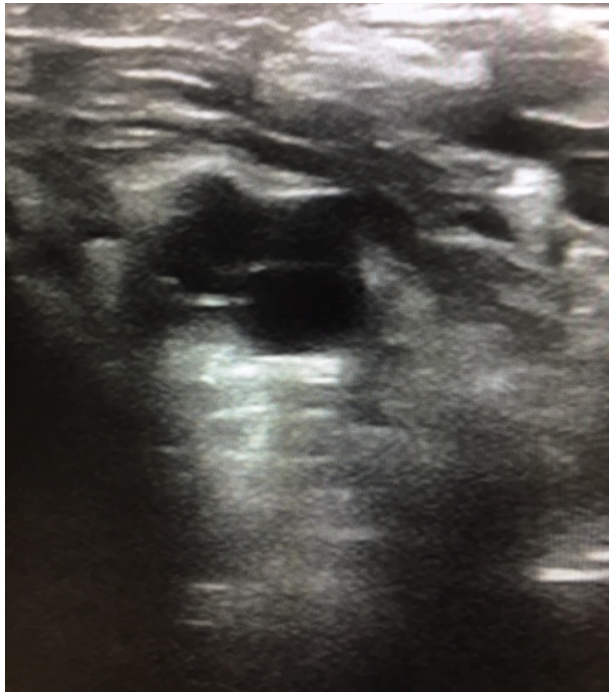
Patient underwent prior 3 ethanol
sclero session , inefficient

Brownish stain no red stain

« Royal Tumor» NF =
neurofibromatosis , Recklinghausen
disease

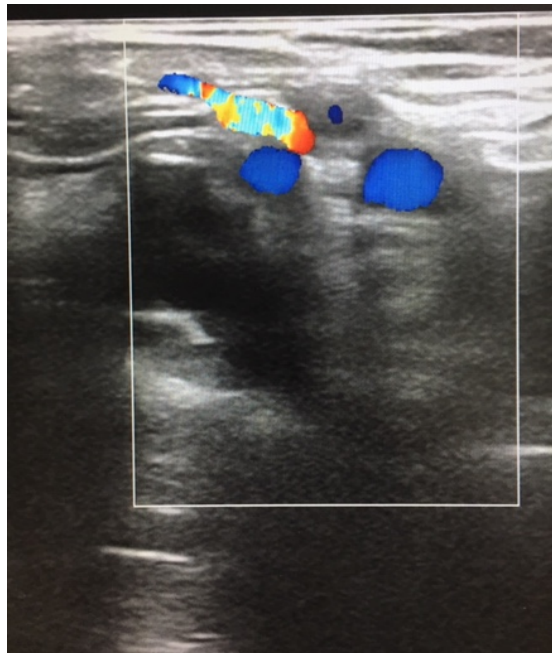


Clinical Exam « Tâche café lait spots » et no capillary malformation +



US= Non depressible , non vascular lesion

25 y/o female with Asymptomatic , lesion discovered on a CT scan for abdominal pain



Hyper T2 lobulated lesion with articular communication

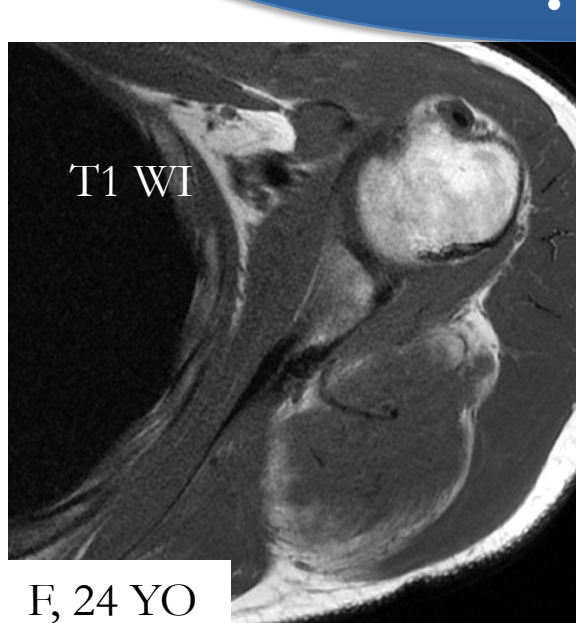
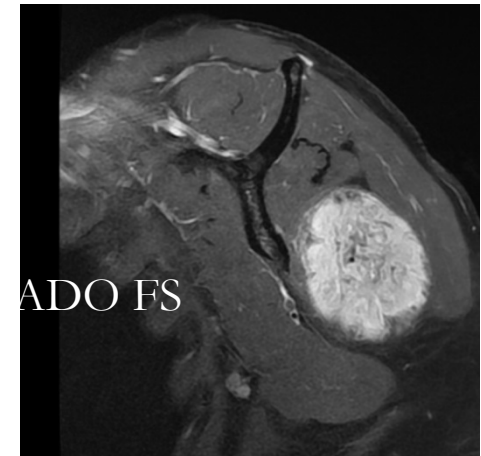
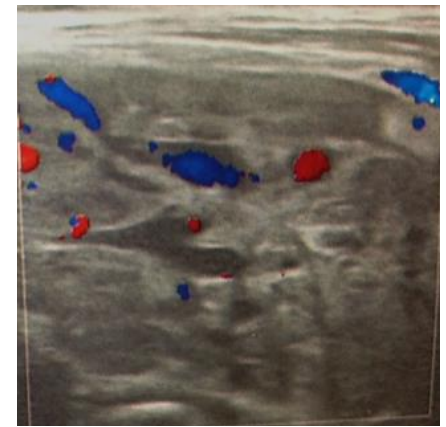
Coxo femoral articular hip cyst

IMH

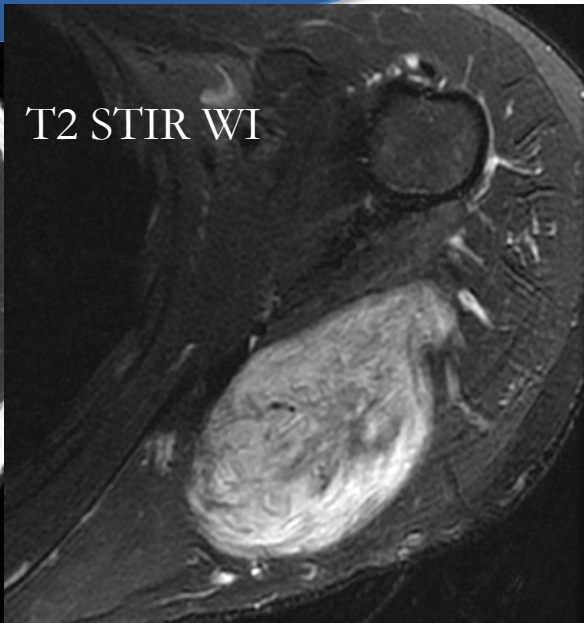
- Radiological findings

MRI :

- Well limited and delineated mass
- High signal intensity on T1 and T2-WI,
- Fatty component
- Intense and homogeneous gadolinium enhancement,
- Signal voids++++ (arterial supply without AV shunting)

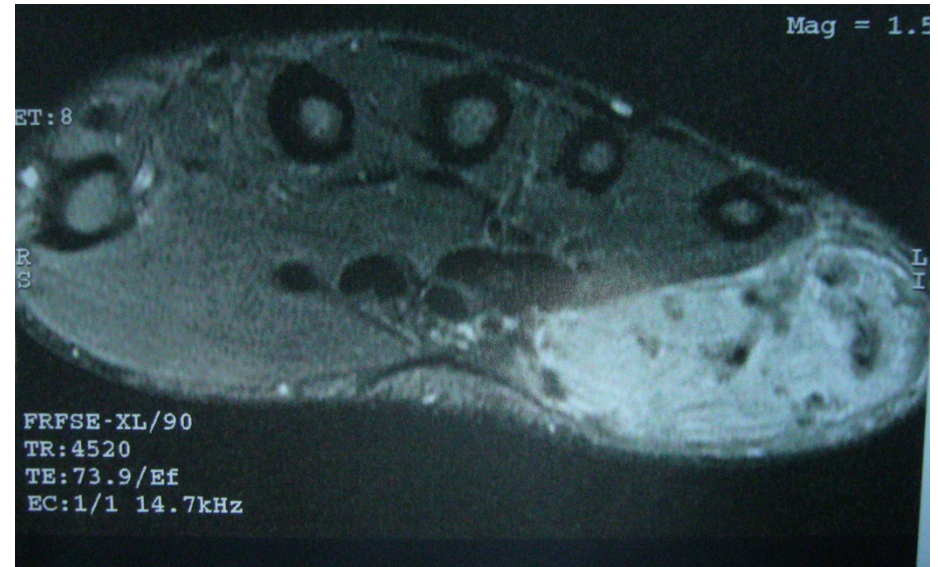
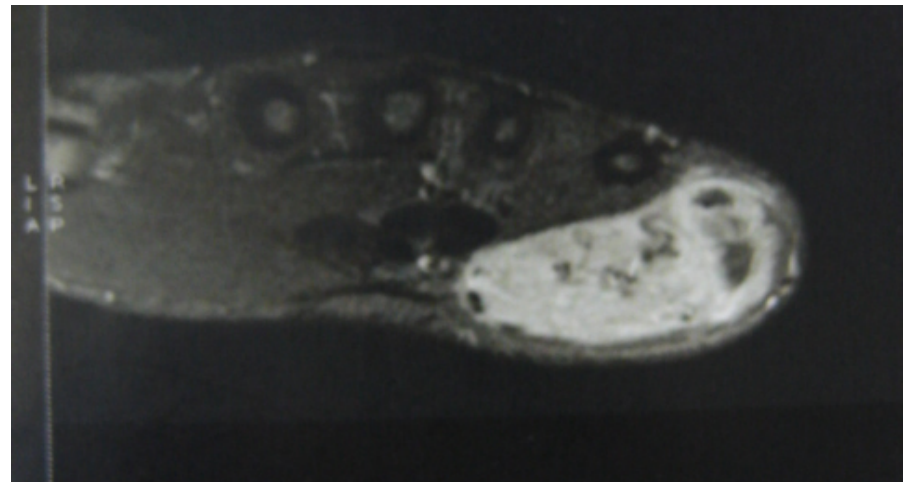


F, 24 YO



C Parlier-Cuau

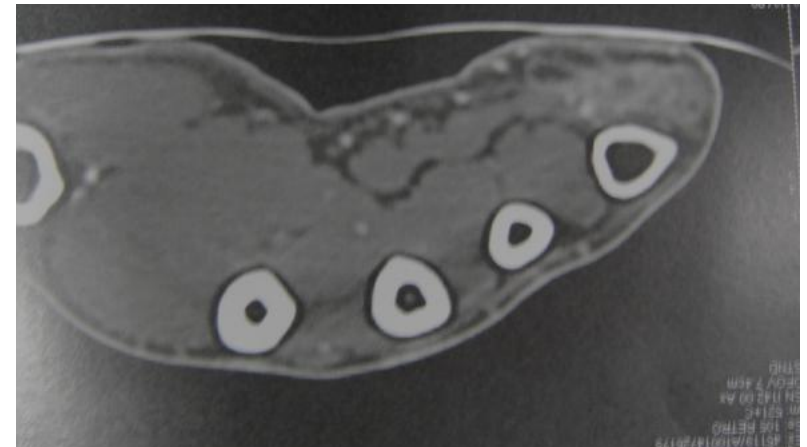
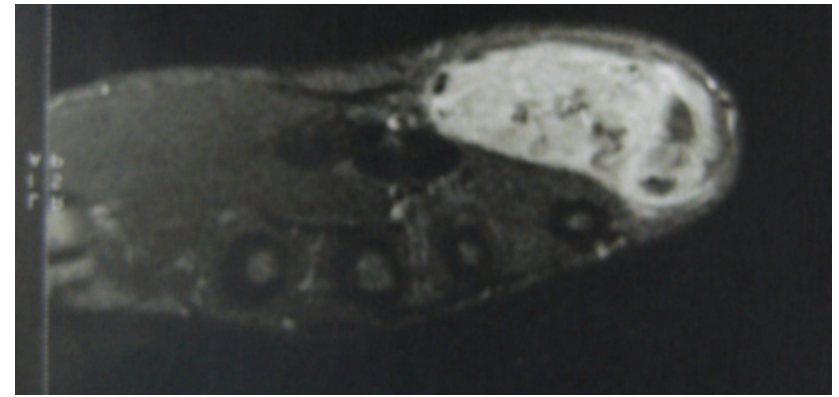
Patient referred for « vascular / AVM malformation »



MRI :

Arterial tortuosities , no afferent artery tortuosities / No early venous return
= NO AVM

Axial : Too « well delineated » lesion



IMH = Intramuscular « Hemangioma »

Sex ratio 2f /1m

age at first consultation : mean & med. 26 y

duration of symptoms : 1 m to 12 y

med. 3 years

1 neonatal lesion

Complaints

local swelling with progressive enlargement
tenderness or pain, intermittent or permanent, increased
by exercise

2 cases developed rapidly ("12 hours " & 8 days)

Post surgical resection, Pr Becquemin

Conclusion

« Common venous malformation (VM) » of the LE are quite « frequent in MRI » BUT Not all hyper T2 lesions on MRI are VM !!

« MRI alone can be confusing »

But **be aware** of differential diagnosis if TRIADE is absent : **BIOPSY**

1. Medical History : When ? Recent increase ?
2. Clinical Examination : depressible ? Bluish ? I Coag D?
3. Ultrasound ++++ and MRI characteristics

Malignant Tumor :

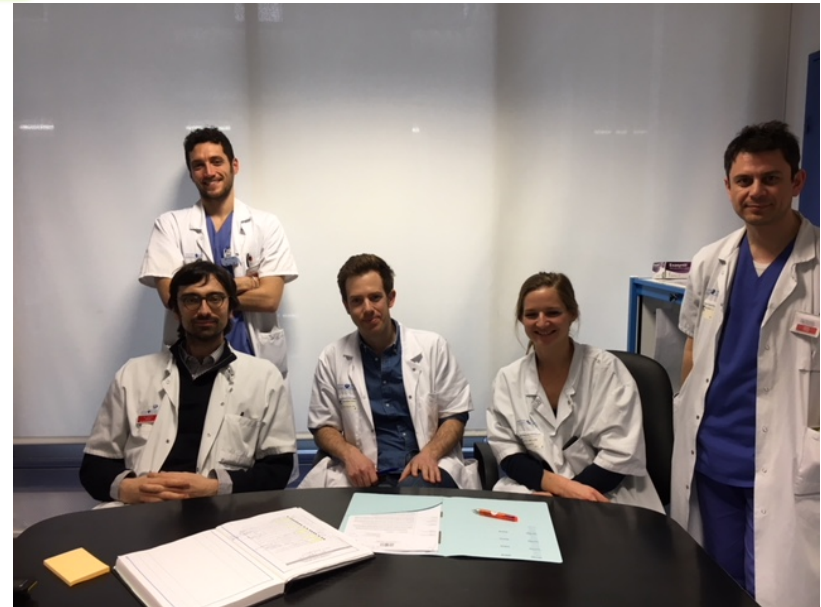
- Sarcoma ,Liposarcoma
- Myxo inflammatory fibroblastic Sarcoma(MIFS)
- Synovialosarcoma, Rhabdosarcoma
- SolitaryFibrous tumors ...

Benign Tumors :

- Nodular Fascitis
- Vascular tumors / IMH
- Hamartomas, Angiomatosis ...



THANKS to Multidisciplinary VAC CLINIC



JJ Merland et MC Riché Odile Enjolras

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