

# RUOLO DEL RADIOLOGO NELL'IDROSADENITE

ROBERTO RIZZATI

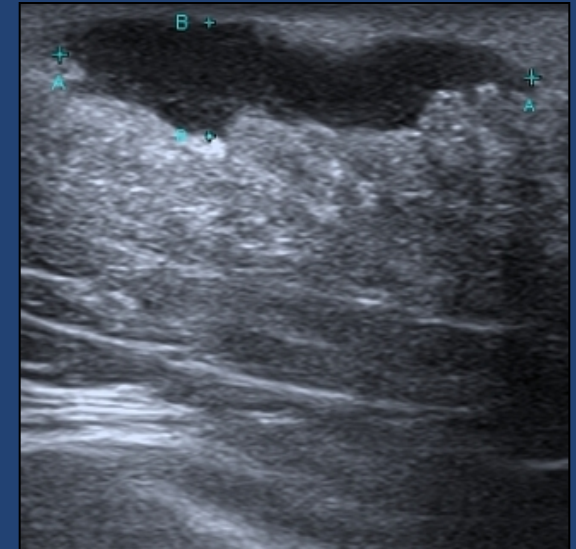
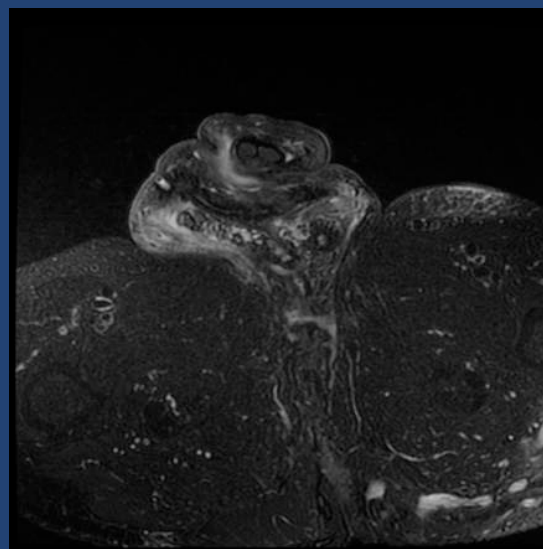
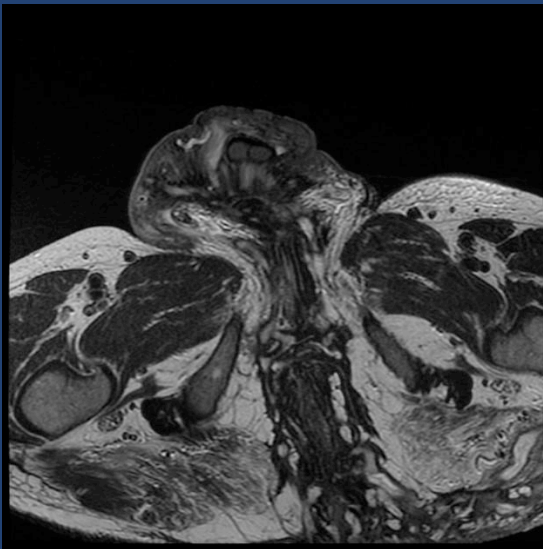
Presidenti  
Vincenzo Bettoli  
Monica Corazza

Presidenti Onorari  
Adalberto Califano  
Annarosa Virgili

**Ac-Fe**

ACNE FERRARA 2017  
14° MEETING di AGGIORNAMENTO  
su ACNE e DERMATOSI CORRELATE

FERRARA, 24-25 NOVEMBRE 2017  
FERRARA FIERE CONGRESSI



# DEFINITION

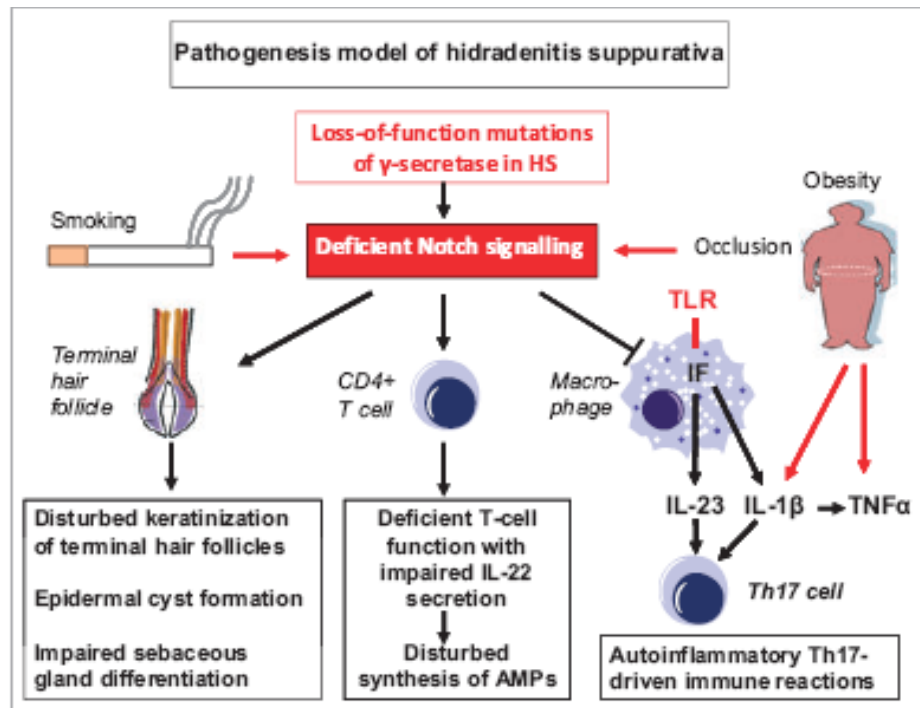
Hidradenitis suppurativa (HS/AI):

- Chronic
- Inflammatory
- Recurrent (at least 6 months)
- Debilitating skin disease
- Starting from the hair follicle
- Usually presents after puberty
- Painful, deep-seated, inflamed lesions
- In the apocrine gland-bearing areas
- Most commonly axillary, inguinal and anogenital regions



# EPIDEMIOLOGY AND AETIOLOGY

- **Mean age of onset: early '20**
- It has also been reported in children and postmenopausal women.
- Decline in prevalence after the age of 55
- Female / male ratio: 3-4/1



# CLINICAL FEATURES

- Typical lesions

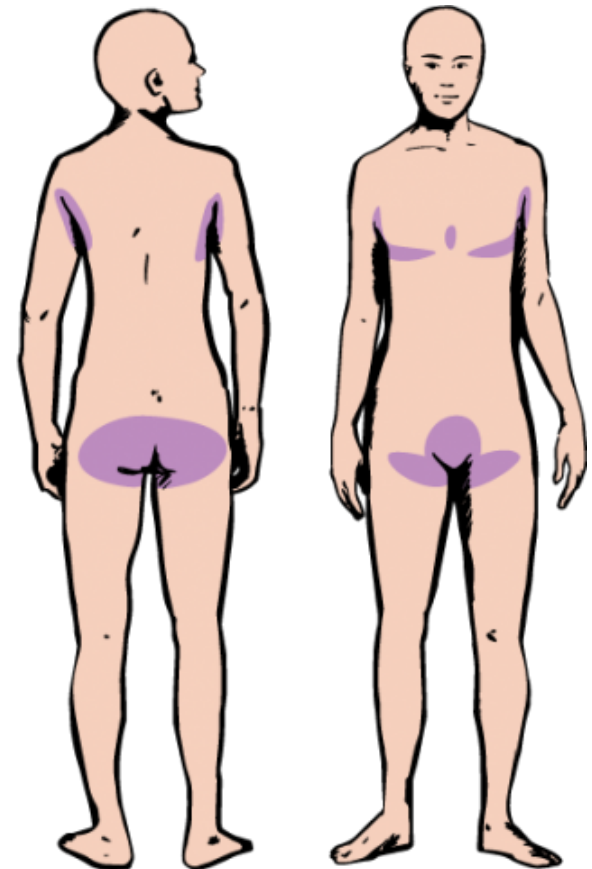
- Nodules
- Abscesses
- Plaques
- Fistulae
- Sinus tracts
- Scars

- Typical evolution

- Slow progression
- Quick worsening

- Typical localizations

- Axillary
- Inguinal
- Perianal
- Gluteal

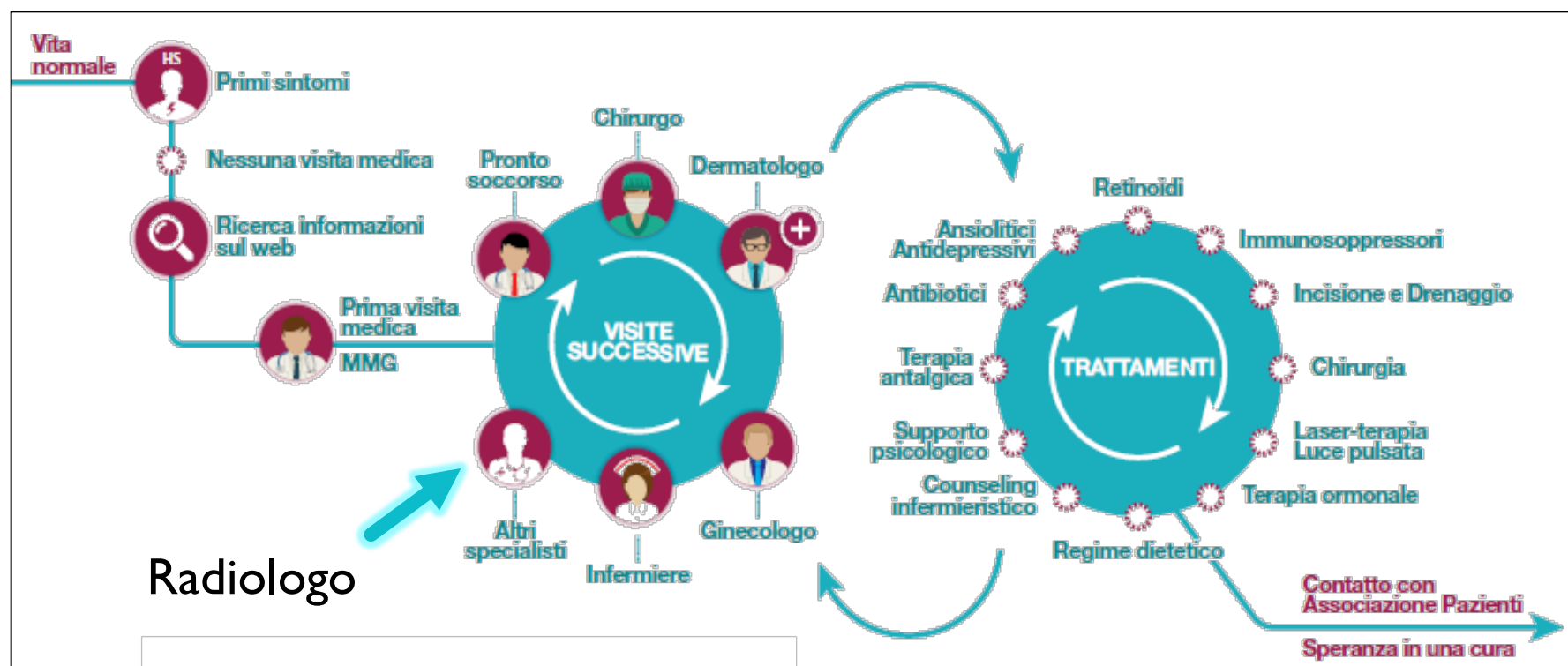




J Eur Acad Dermatol Venereol. 2016 May 2. doi: 10.1111/jdv.13687. [Epub ahead of print]

## The Hidradenitis suppurativa patient journey in Italy: current status, unmet needs and opportunities.

Bettoli V<sup>1</sup>, Pasquinucci S<sup>2</sup>, Caracciolo S<sup>3</sup>, Piccolo D<sup>4,5</sup>, Cazzaniga S<sup>6</sup>, Fantini F<sup>7</sup>, Binello L<sup>8</sup>, Pintori G<sup>9</sup>, Naldi L<sup>6,10</sup>.



# WHAT TO ASK TO THE RADIOLOGIST?

- Differential diagnosis (Crohn's disease)
- Staging
- Therapy response follow-up
- Complications assessment and follow-up

# STAGING

Hidradenitis suppurativa has 3 stages (Hurley stages):

- Solitary or multiple isolated abscess formation; no scarring or sinus tracts. Resembling acne.
- Recurrent abscesses, single or multiple widely separated lesions. Sinus tract formation is present. This can restrict movement and incision and drainage may be required.
- Diffuse or broad involvement across a regional area with multiple interconnected sinus tracts and abscesses. Fistulation and scarring.

# CLINICAL CORRELATION AND STAGING

Criteria for diagnosis of HS as adopted by the international symposium of the Hidradenitis Suppurativa Foundation in March 2009 <sup>(1)</sup> and Hurley's Staging:

Diagnostic Criteria	Hurley's Staging
<ul style="list-style-type: none"><li>• typical lesions: deep-seated painful nodules: 'blind boils' in early lesions; abscesses, draining sinuses, bridged scars, and open 'tombstone' comedones in secondary lesions</li><li>• typical topography: axillae, groin, perineal and perianal regions, buttocks, infra- and intermammary folds; and</li><li>• Chronicity and recurrences.</li></ul>	<ul style="list-style-type: none"><li>• Stage 1 – solitary or multiple, isolated abscess formation without scarring or sinus tracts</li><li>• Stage 2 – recurrent abscesses, single or multiple widely separated lesions, with sinus tract formation</li><li>• Stage 3 – diffuse or broad involvement, with multiple interconnected sinus tracts and abscesses</li></ul>

# RADIOLOGY IN HIDROSADENITIS

The diagnosis of hidradenitis suppurativa is clinical, and imaging is non-specific.

- Differential diagnosis
- Staging
- Follow-up

# IMAGING

- examination under anaesthesia (EUA)
- pelvic magnetic resonance imaging (MRI)
- anorectal endosonography (EUS)
- transperineal ultrasound (TPUS)
- fistulography and computed tomography (CT).



US - MRI

# ULTRASOUND



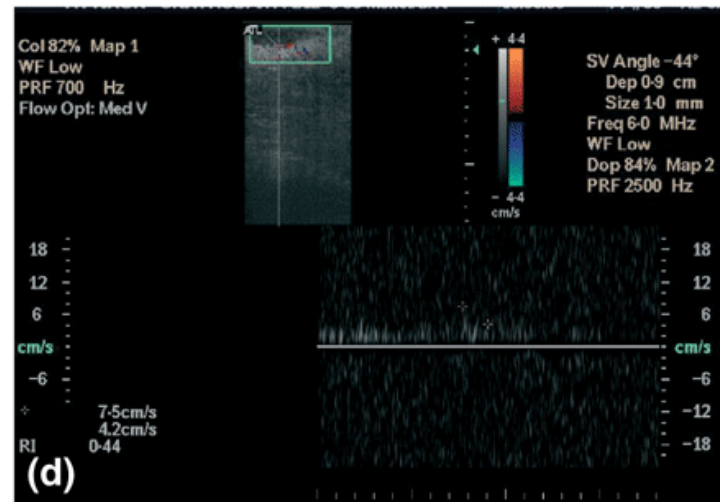
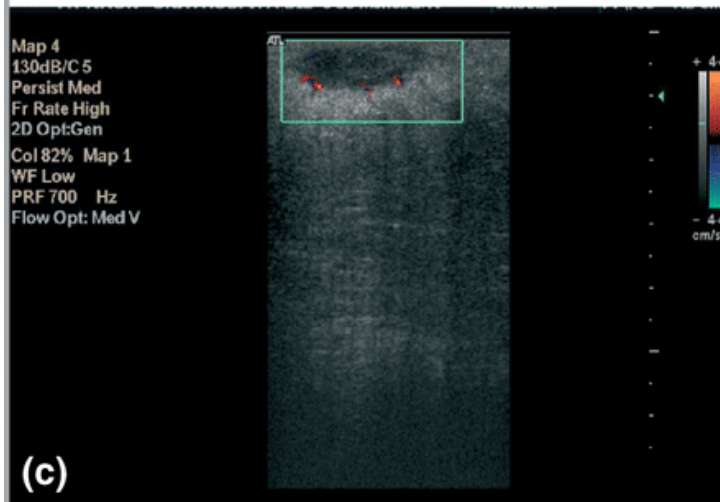
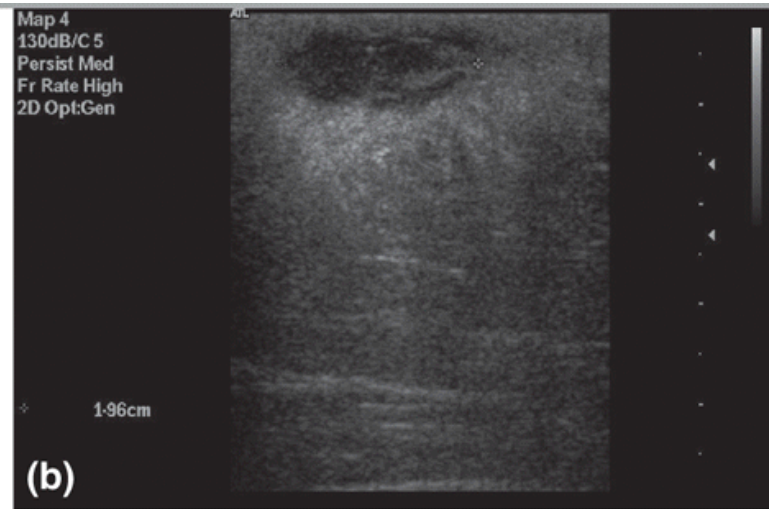
- A number of features can be identified by ultrasound. These features include both actual lesions and possible predisposing factors such as skin thickness and hair follicle morphology.



# Sonografic Criteria of HS

- Widening of the hair follicles
- Thickening or abnormal echogenicity of the dermis
- Dermal pseudocystic nodules (round or oval-shaped hypoechoic or anechoic nodular structures)
- Fluid collections (anechoic or hypoechoic fluid deposits, in the dermis or hypodermis connected to the base of widened hair follicles)
- Fistulous tracts (anechoic or hypoechoic band-like structures across skin layers in the dermis or hypodermis connected to the base of widened hair follicles)

**Ultrasound In-Depth Characterization and Staging of Hidradenitis Suppurativa**  
**Wortsman et al**  
**Dermatologic Surgery October 2012**



**Right axilla of a 38-year-old female patient. Ultrasound findings of one of the lesions showing a hypoechogenic lesion showing vascularity at the periphery of the lesion;**

Kelekis et al british journal of dermatology february 2010

# MRI (no mdc e.v!!)

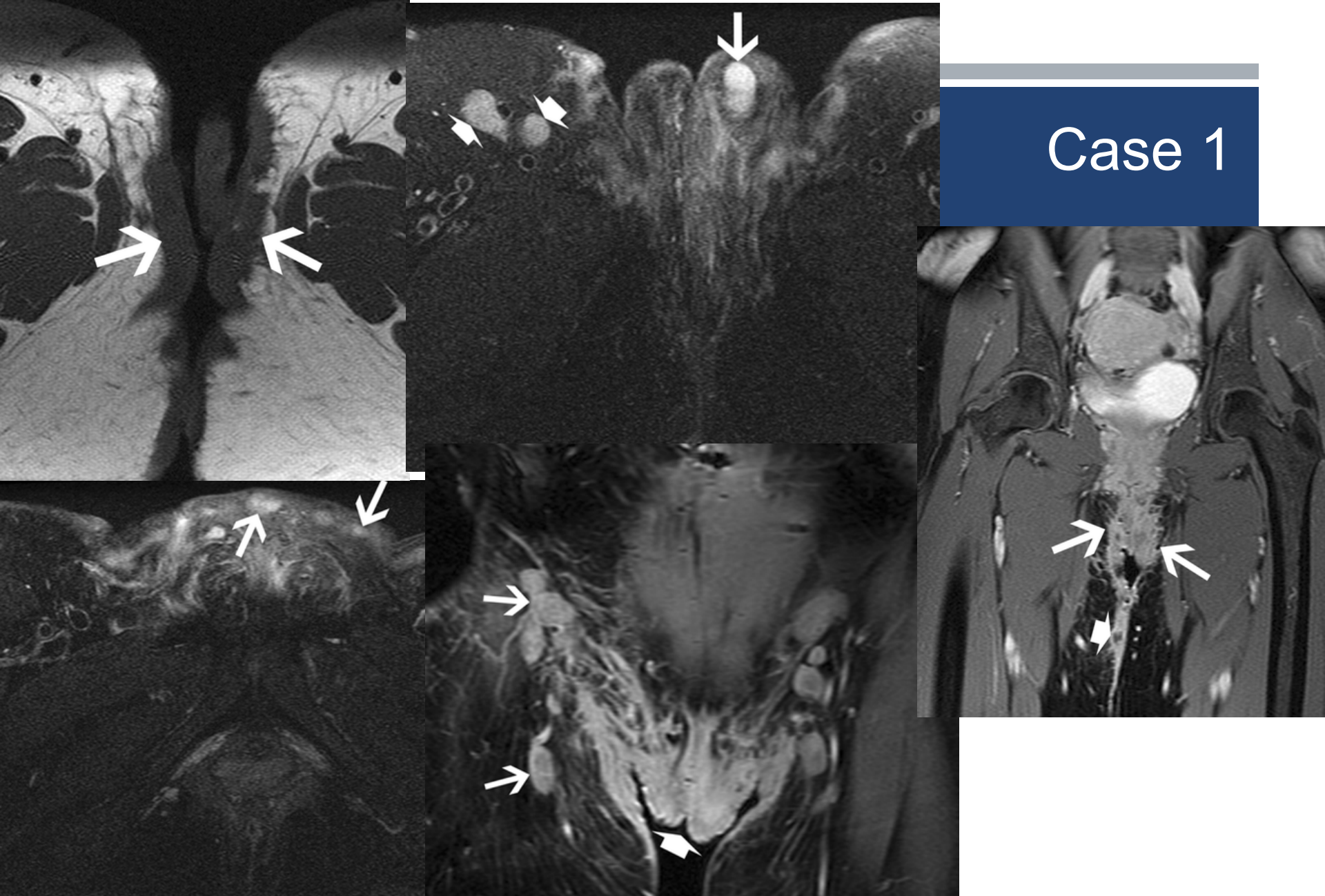


- MRI is the test of choice to assess extent and for complications. MRI is also useful to differentiate from Crohn disease, the main differential diagnosis.
- STIR is considered the most useful sequence.
- marked thickening of the skin
- induration of the subcutaneous tissues
- formation of multiple subcutaneous abscesses
- prominent lymphadenopathy
- The differential diagnosis for these findings includes carbuncles, lymphadenitis, and infected Bartholin's or sebaceous cysts. Sinus and fistula formation remote from rectum and anus (cf. Crohn disease).

# RADIOLOGICAL EVALUATION



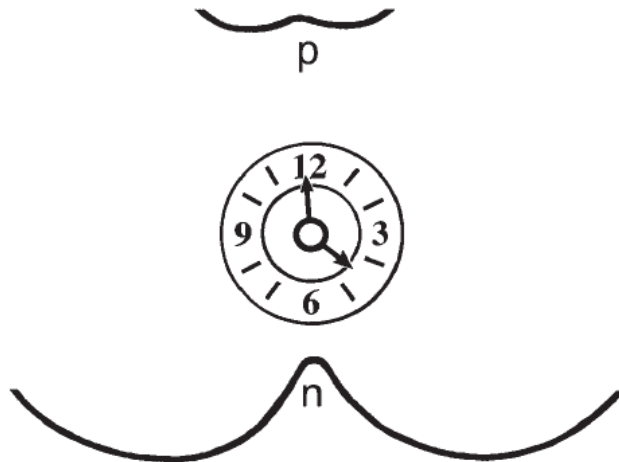
## Case 1



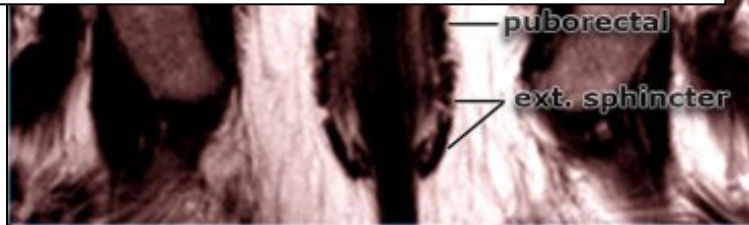
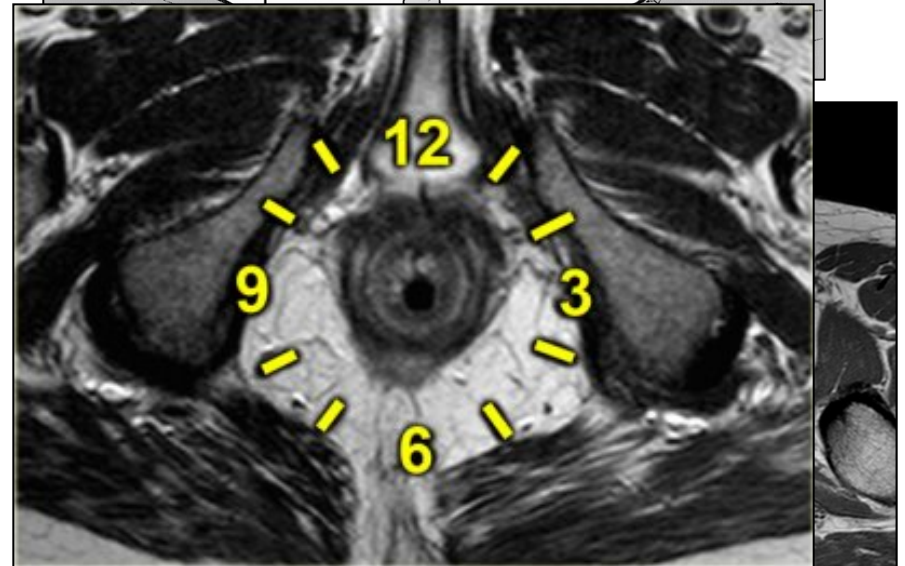
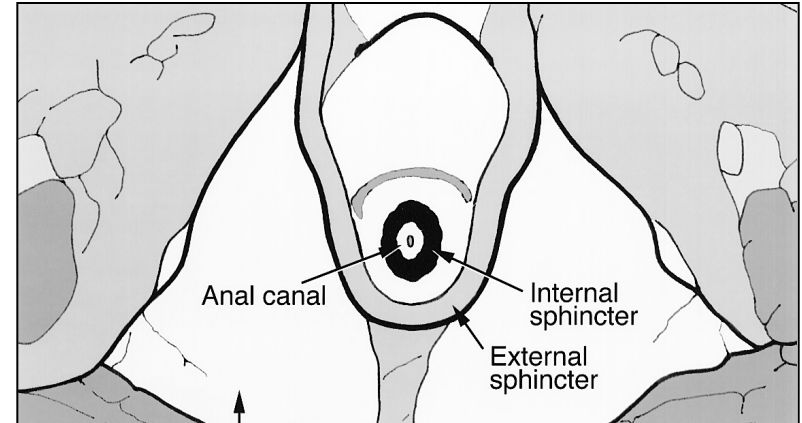
31-year-old woman with hidradenitis suppurativa



# ANATOMY



**Figure 1.** Drawing illustrates the anal clock, which is the surgeon's view of the perianal region when the patient is in the lithotomy position. The anterior perineum (*p*) is at the 12 o'clock position, and the natal cleft (*n*) is at the 6 o'clock position; 3 o'clock refers to the left lateral aspect, and 9 o'clock, the right lateral aspect of the anal canal. This schema exactly corresponds to the orientation of axial MR images of the perianal region.

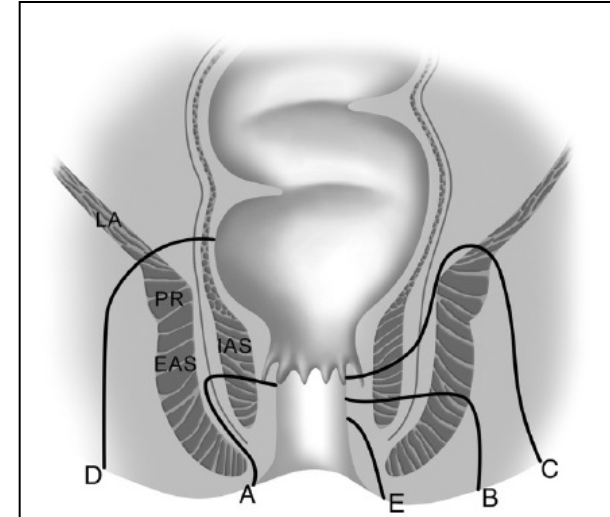


***“Per capire le opzioni chirurgiche per il trattamento della malattia fistolosa, importante e conoscere l'anatomia e la funzione degli sfinteri”***

# CLASSIFICATION

## Parks classification of perianal fistula

- Intersfinterica (a) 45%
- Transfinterica (b) 30%
- Soprasfinterica (c) 20%
- Trans elevatore ano senza interessare gli sfinteri (d) 5%
- Fistola sottocutanea (e) (non inclusa nella class di Parks)



## St James's University Hospital MR Imaging Classification of Perianal Fistulas

### St James's University Hospital MR Imaging Classification of Perianal Fistulas

Grade	Description
0	Normal appearance
1	Simple linear intersphincteric fistula
2	Intersphincteric fistula with intersphincteric abscess or secondary fistulous track
3	Trans-sphincteric fistula
4	Trans-sphincteric fistula with abscess or secondary track within the ischioanal or ischiorectal fossa
5	Supralelevator and translevator disease

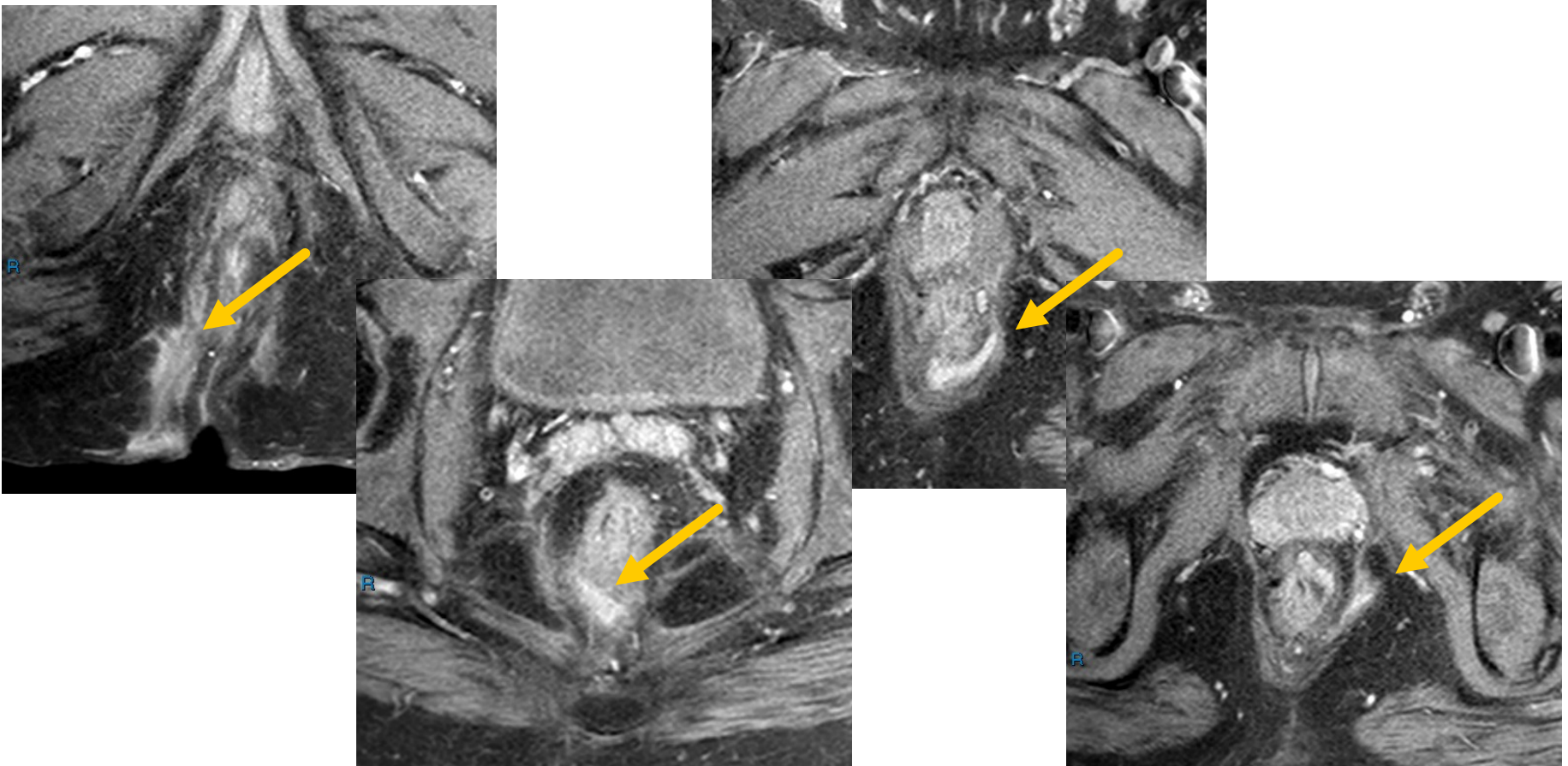
*John Morris, FRCR • John A. Spencer, MD, FRCR • N. Simon Ambrose, MS, FRCS*

**MR Imaging Classification of Perianal Fistulas and Its Implications for Patient Management<sup>1</sup>**



## CASE 2 - MRI

C.D. m 61 aa



**Tragitto fistoloso laterale sinistro con tragitto caudale che si dispone a “ferro di cavallo” in continuità con raccolta ascessuale glutea destra**

## CASE 2 - MRI

O.Z. f 37 aa



Tragitto fistoloso laterale sinistro ore 3 transfinterico con decorso in regione glutea mediale e orifizio cutaneo.

## CASE 3 - US

S.C. f 23 aa

Mus.-Sch. Gen.

L12-5

46Hz

Ris./Vel.

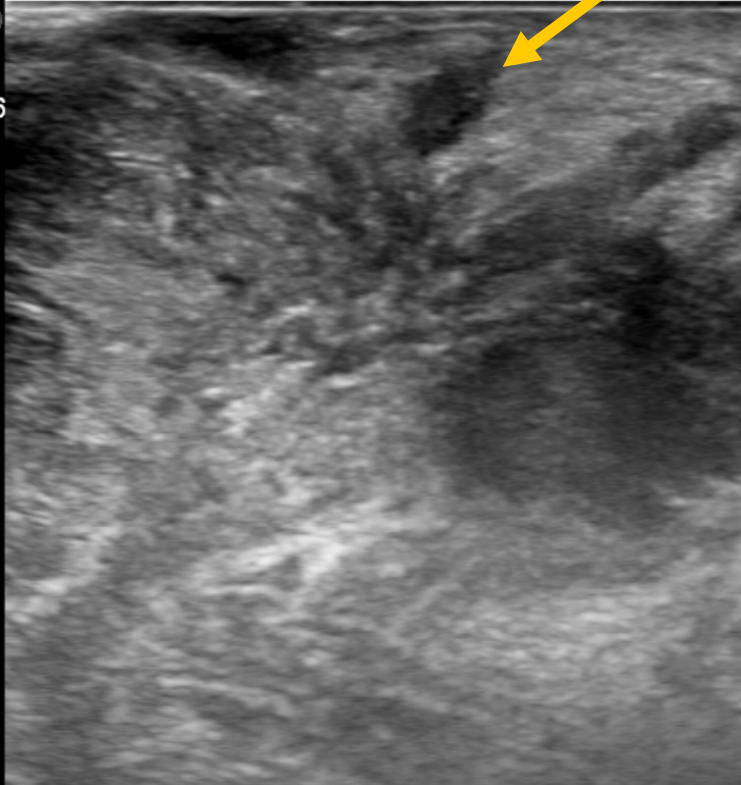
2D

64%

R din. 56

P Med.

Ris.



Mus.-Sch. Gen.

L12-5

46Hz

Ris./Vel.

2D

64%

R din. 56

P Med.

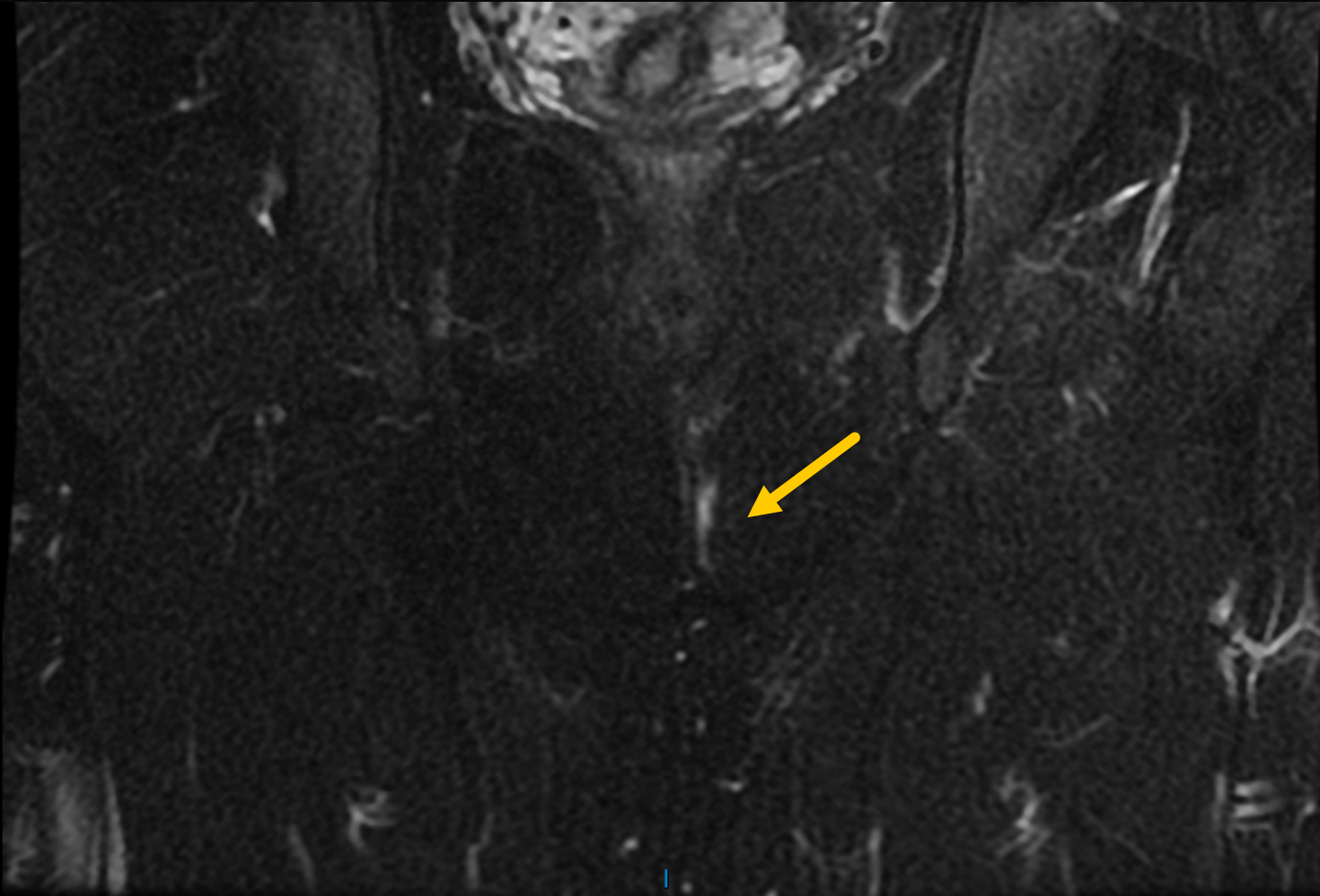
Ris.



✦ Dist 0.309 cm

## CASE 3 - MRI

S.C. f 23 aa

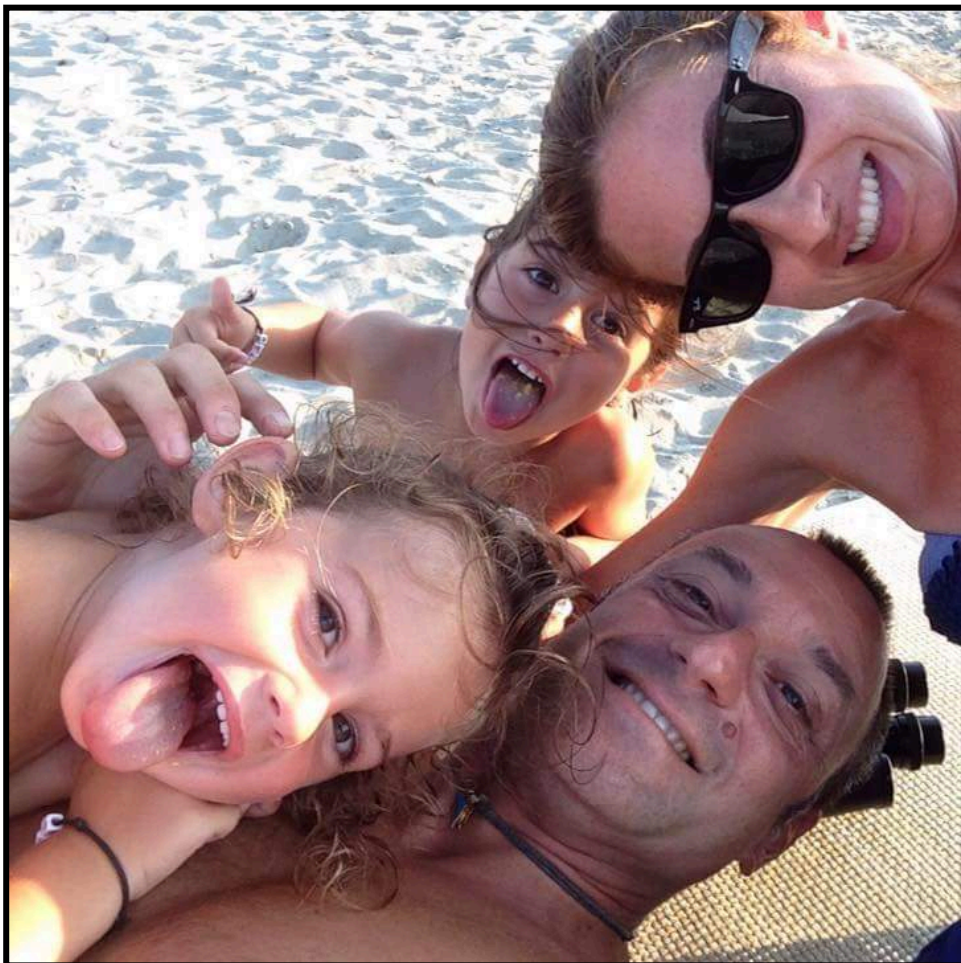


# Conclusioni

- Staging ed eventuale planning pre operatorio
- Follow up complicanze o post terapia
- DD
- CEUS????
- PDTA



# Grazie per l'attenzione!!



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