



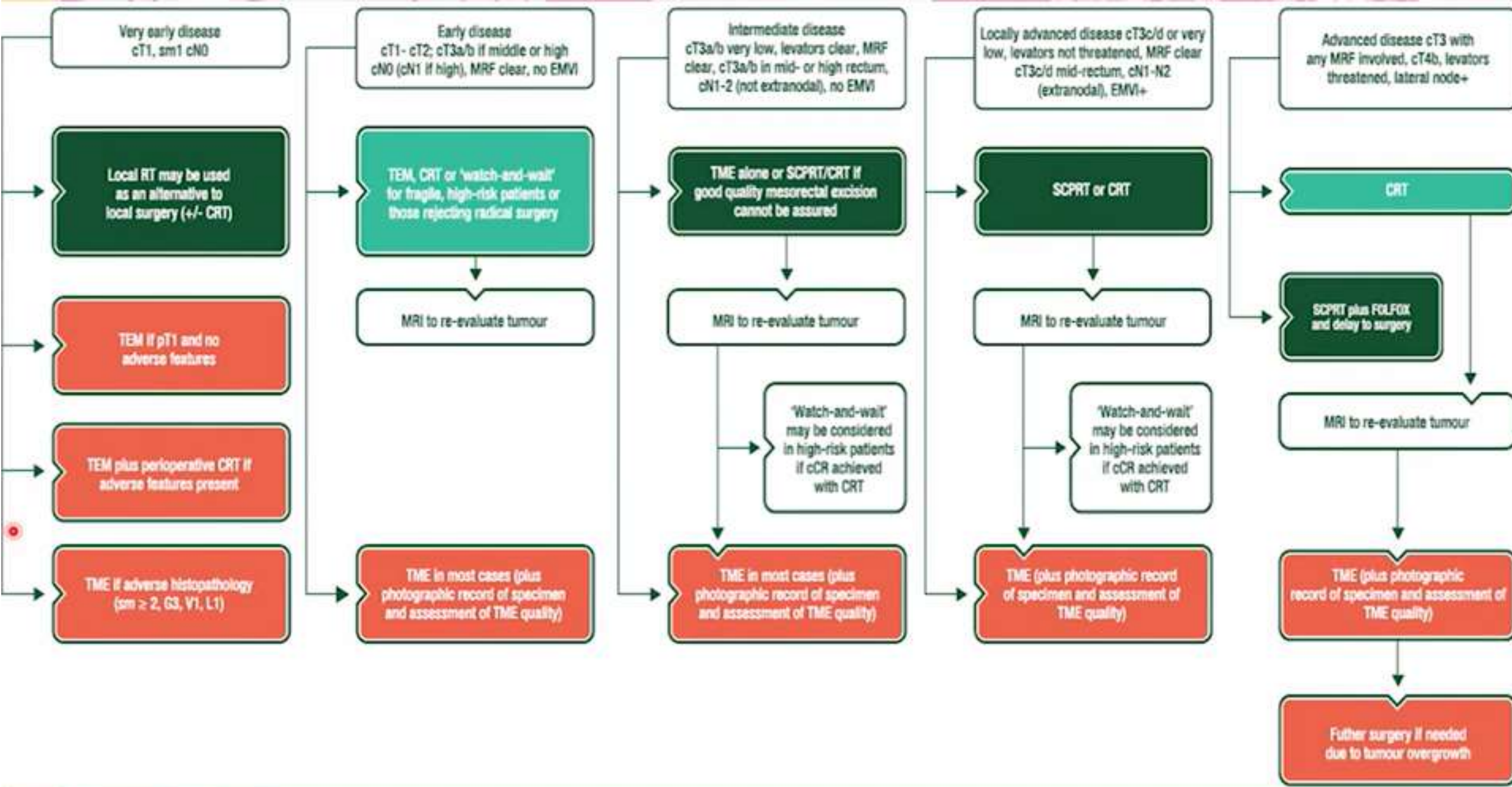
CENTRE HOSPITALIER UNIVERSITAIRE D'ORAN  
المركز الجامعي الاستشفائي لهران  
SERVICE CENTRAL D'IMAGERIE MEDICALE ET RADIOLOGIE  
المصلحة المركزية للفحص بالأشعة و التصوير الطبي

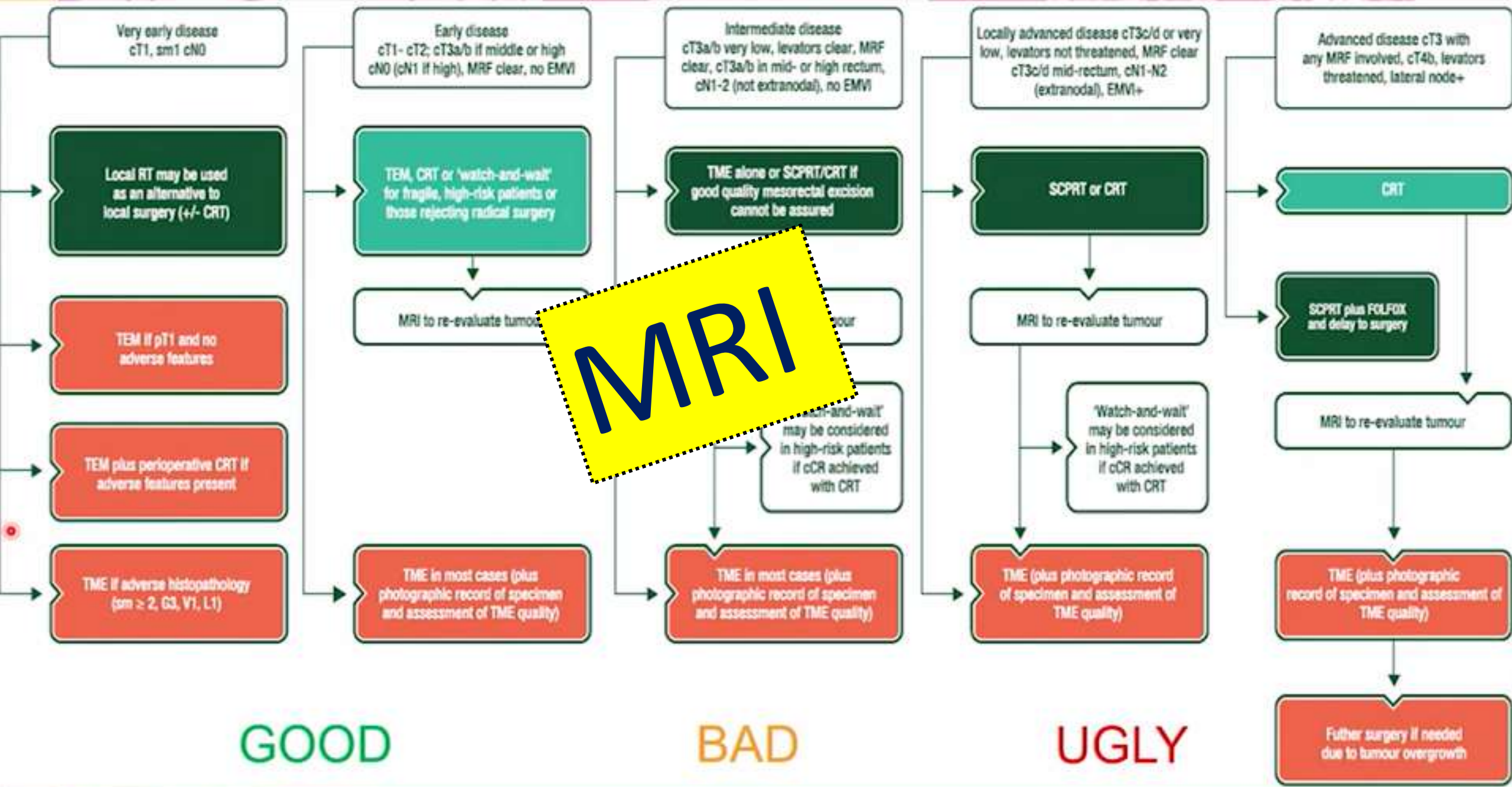
## Comment réaliser et interpréter une IRM dans le cancer du rectum



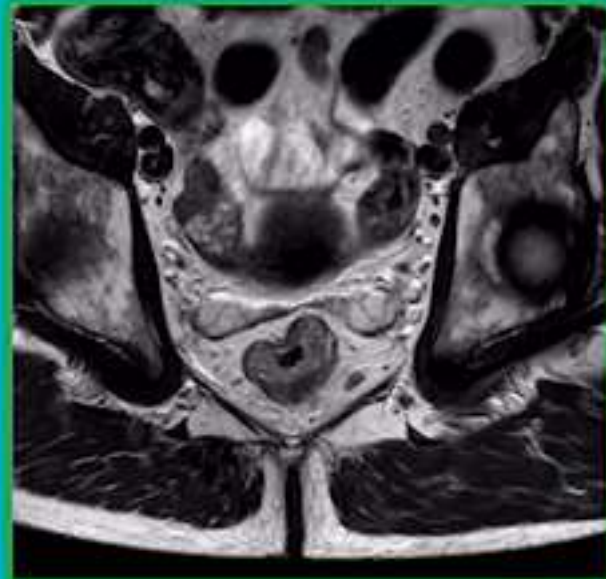
**Dr BIDI Sidahmed**  
CHU Oran, Algérie  
Service de radiologie central





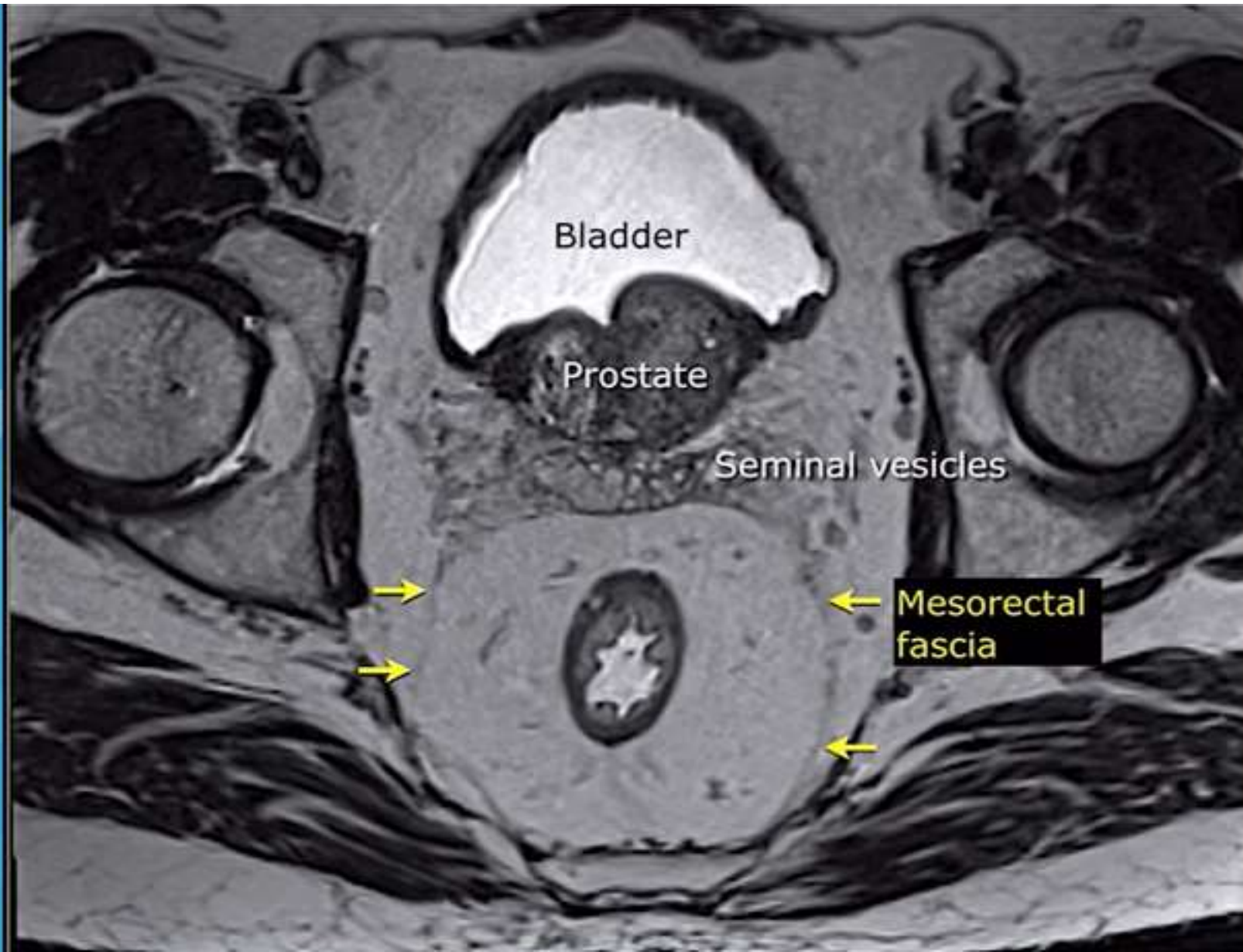


# Comment Faire



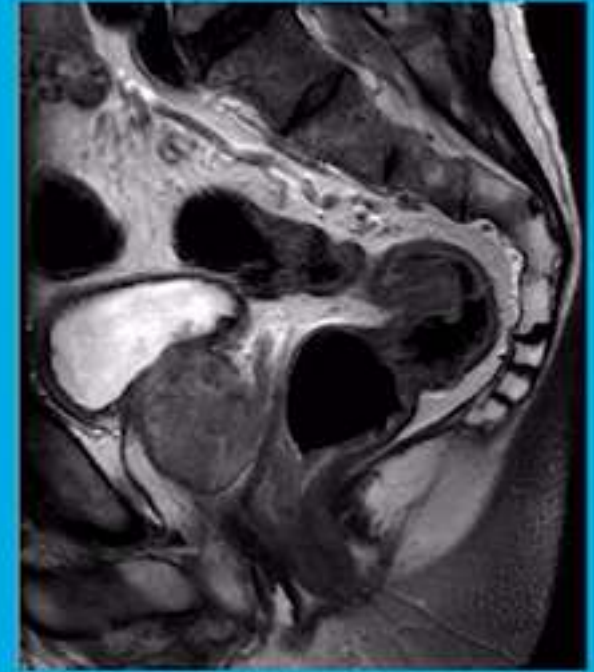
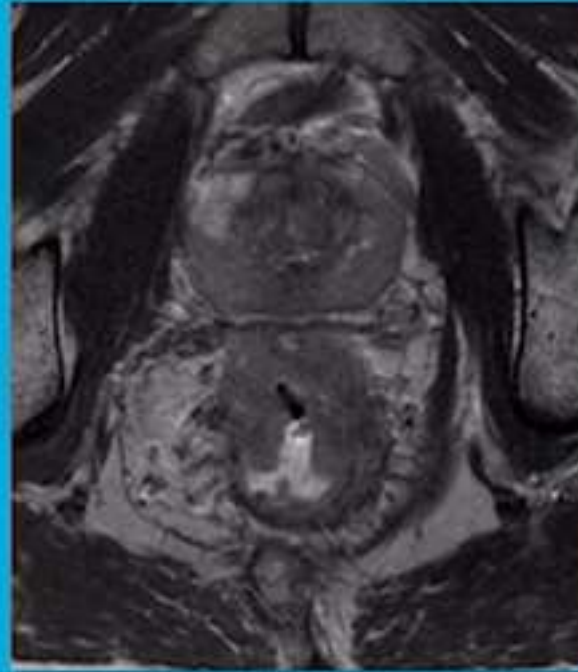
- 1.5 or 3T
- Slice thickness  $\leq 3$  mm
- No FS, T1W (NE or CE) or DCE images
- Optional spasmolytics
- Optional enema

# Anatomie



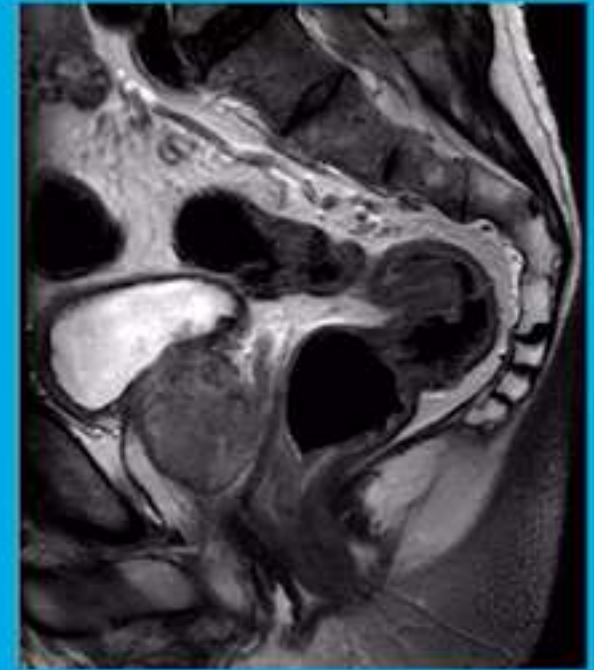
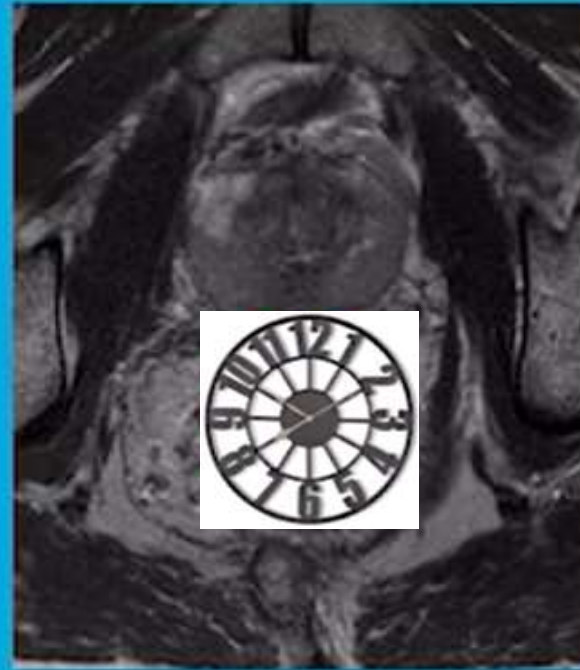
# Comment j'interprète

- Morphology
- Height and length
- T-stage
- Mesorectal fascia
- N-stage
- EMVI



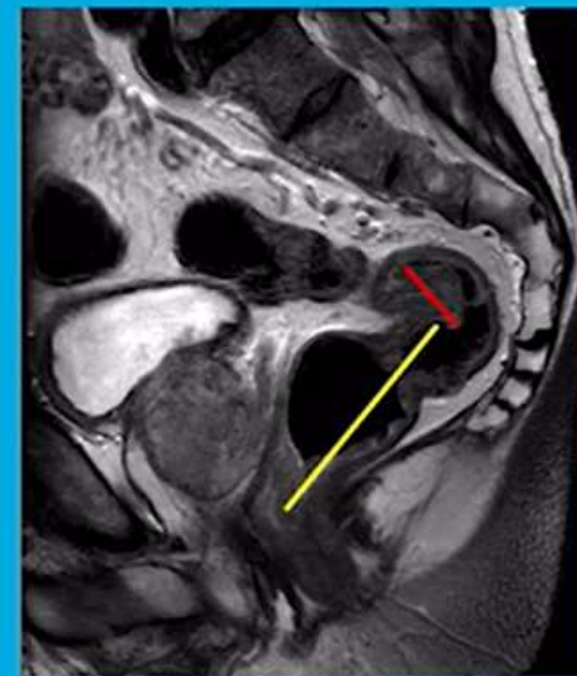
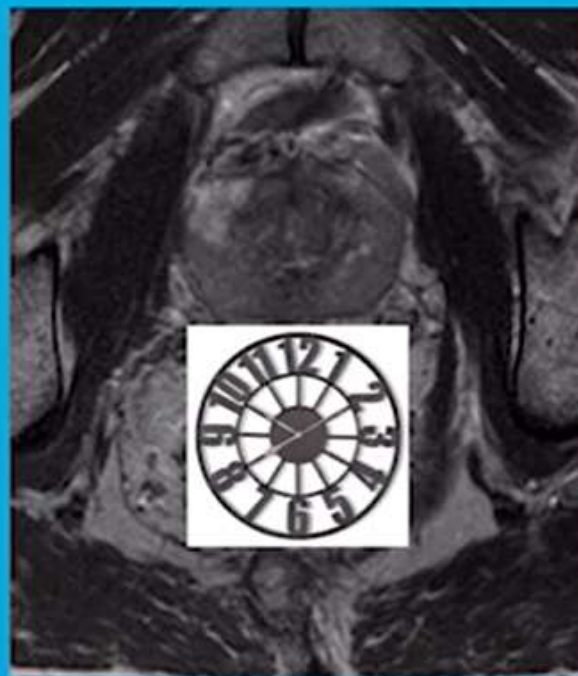
# Comment j'interprète

- Morphology
- Height and length
- T-stage
- Mesorectal fascia
- N-stage
- EMVI



# Comment j'interprète

- Morphology
- Height and length
- T-stage
- Mesorectal fascia
- N-stage
- EMVI



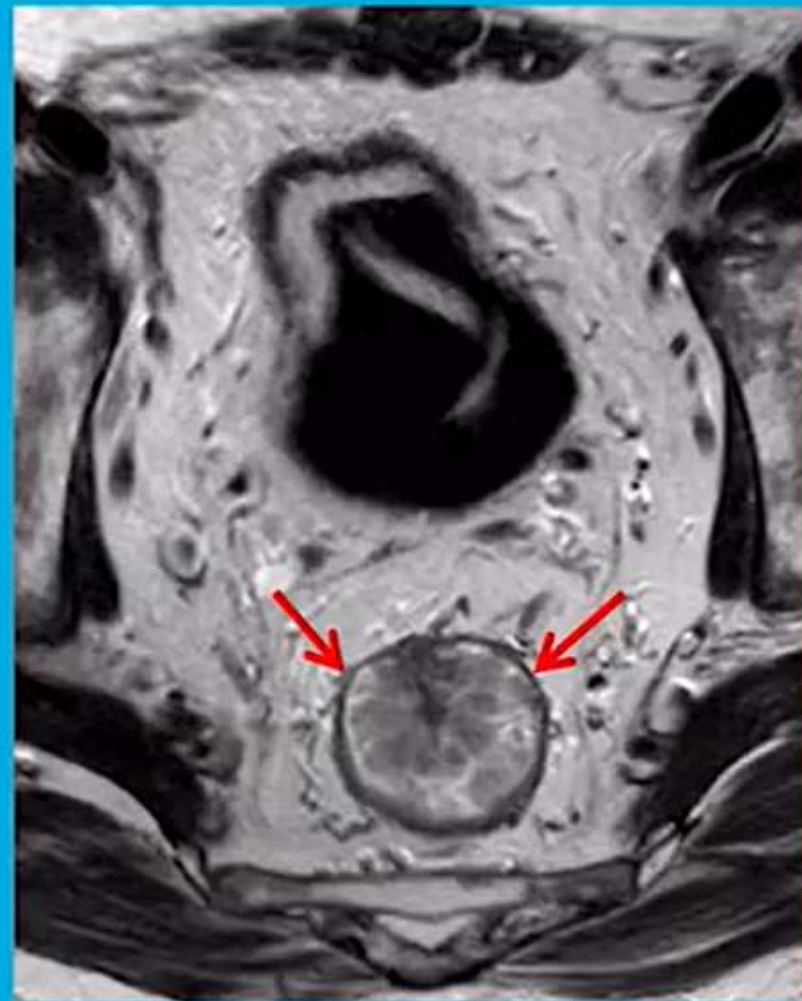
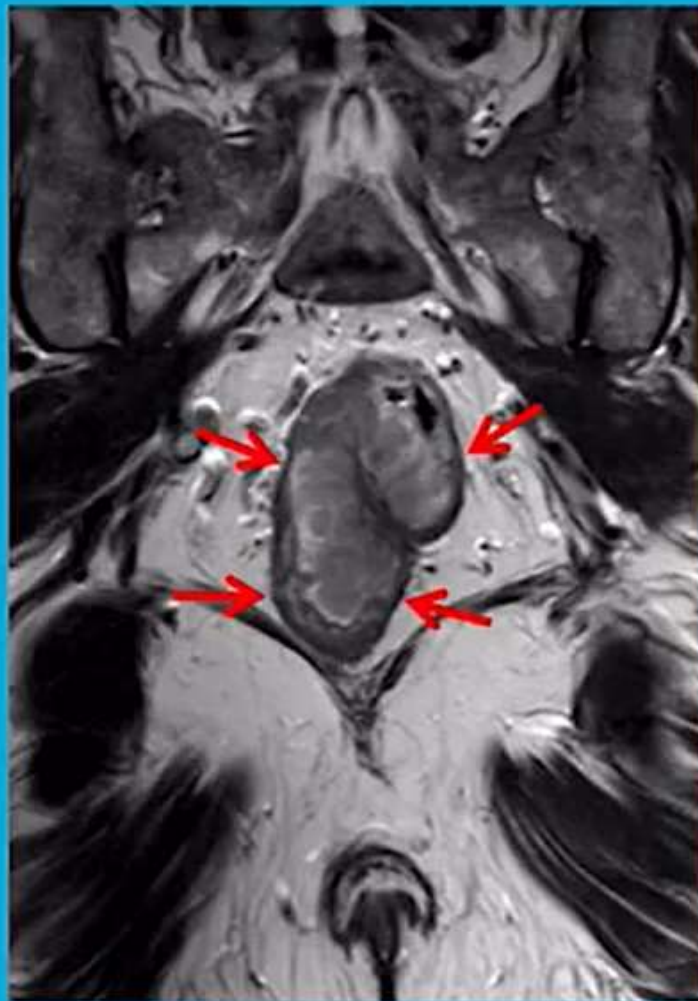
GOOD

BAD

UGLY

# T-stage

- T1-2: intact bowel wall

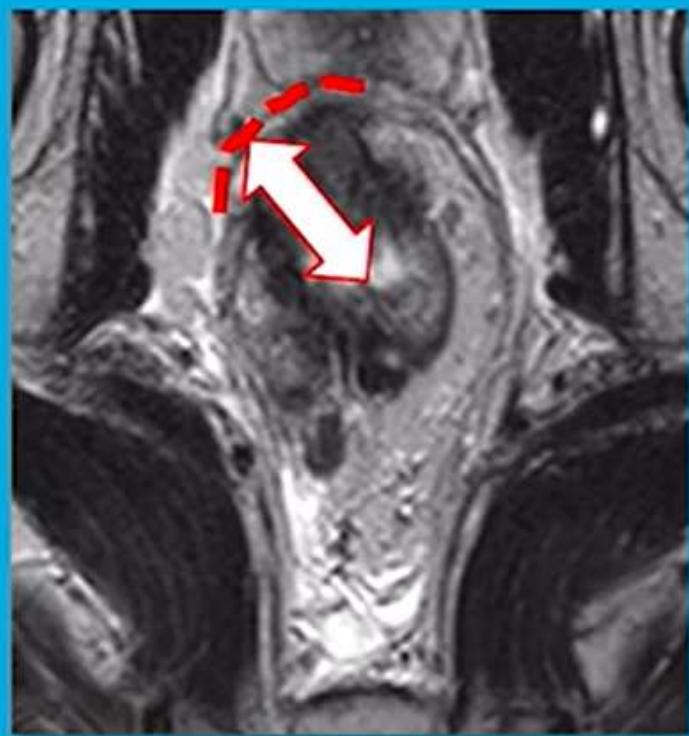
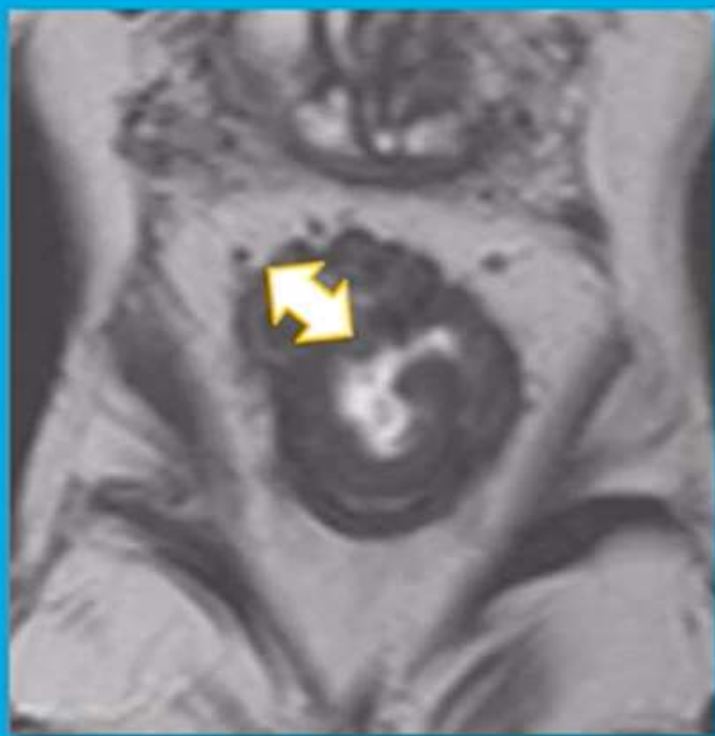
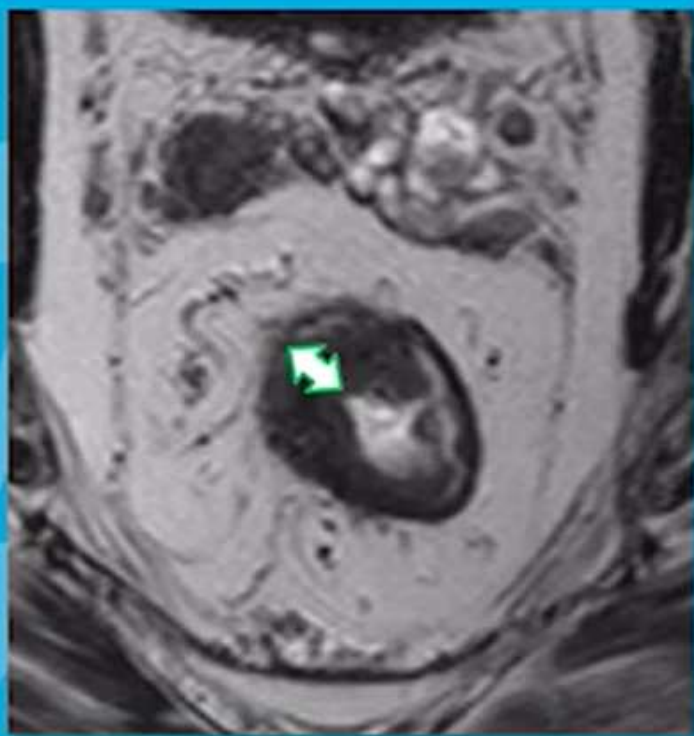


# T-stage

T3a < 1 mm  
T3b 1-5 mm

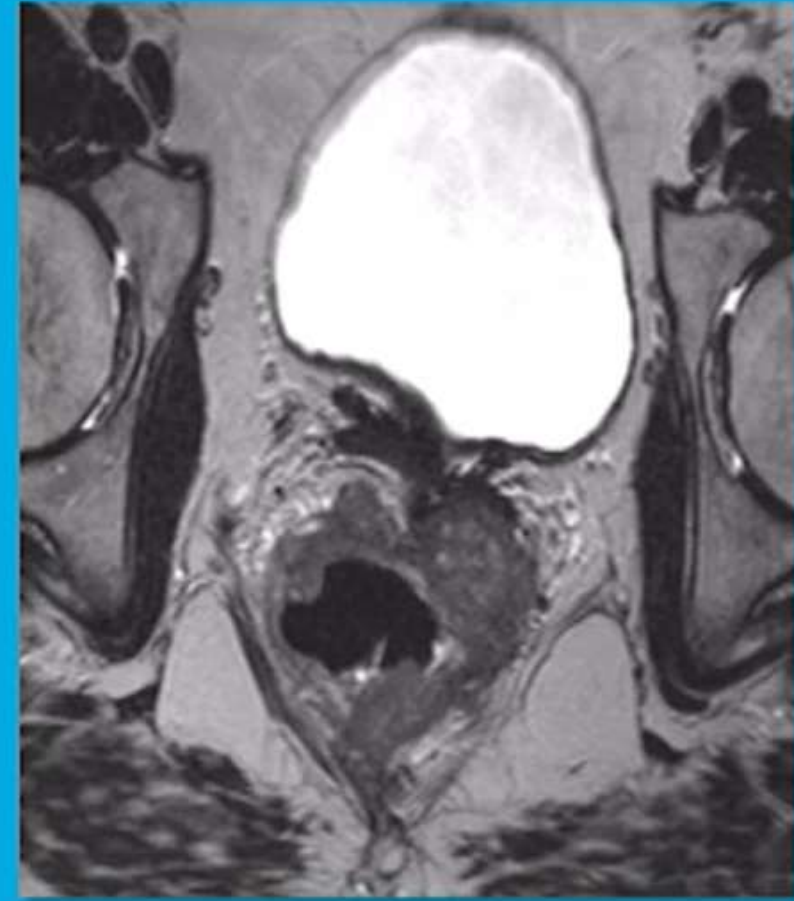
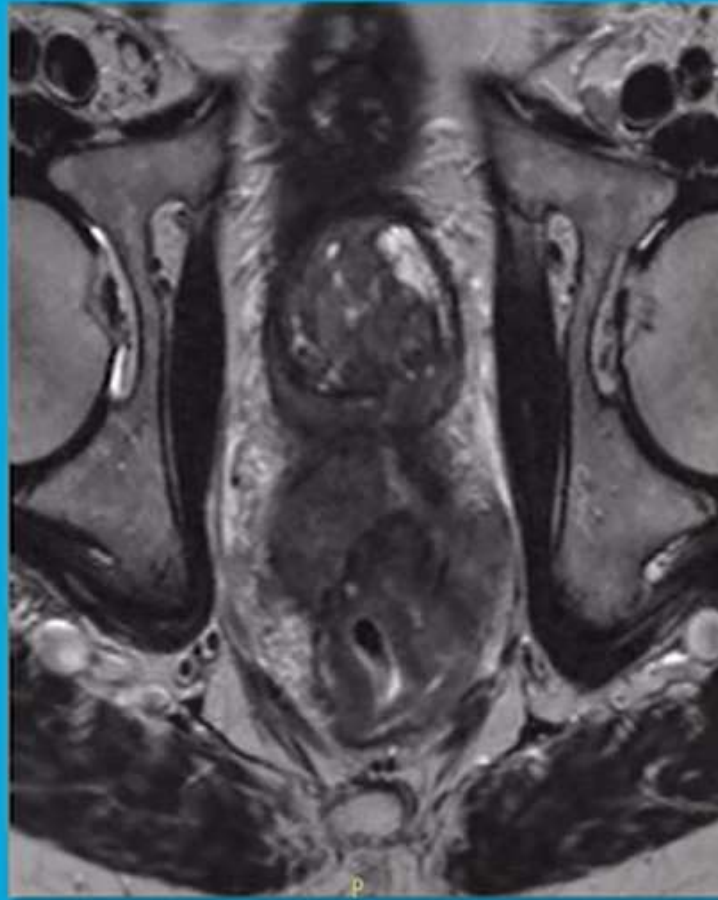
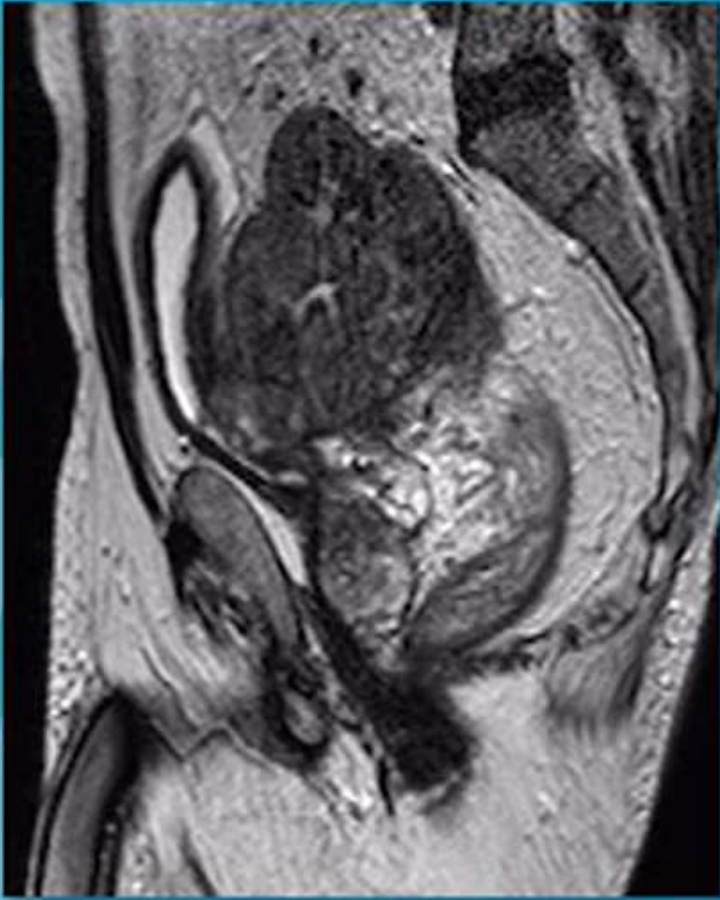
T3c 5-15 mm

T3d >15 mm



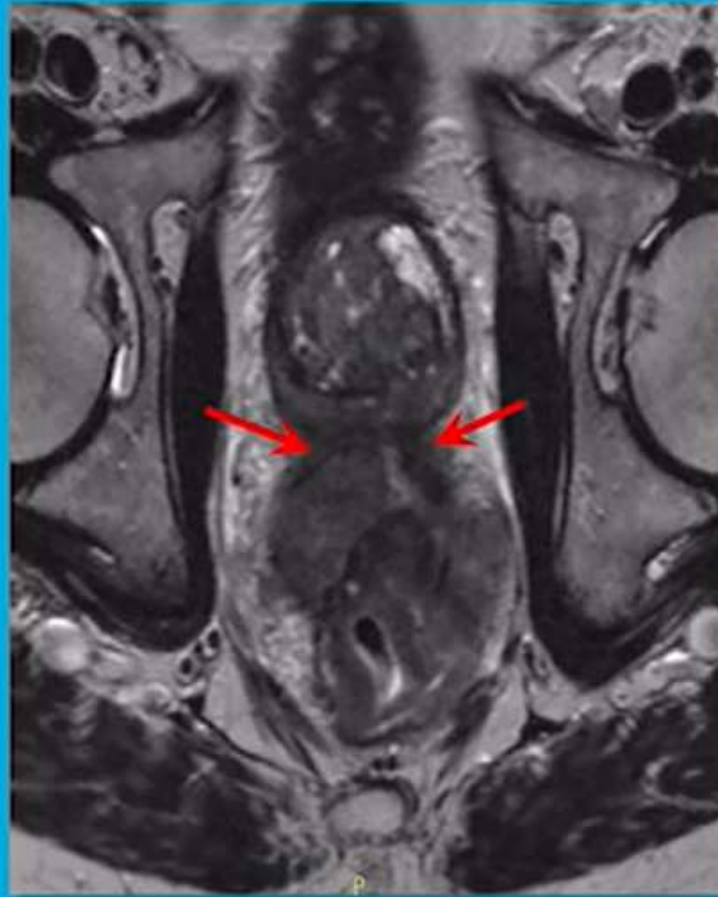
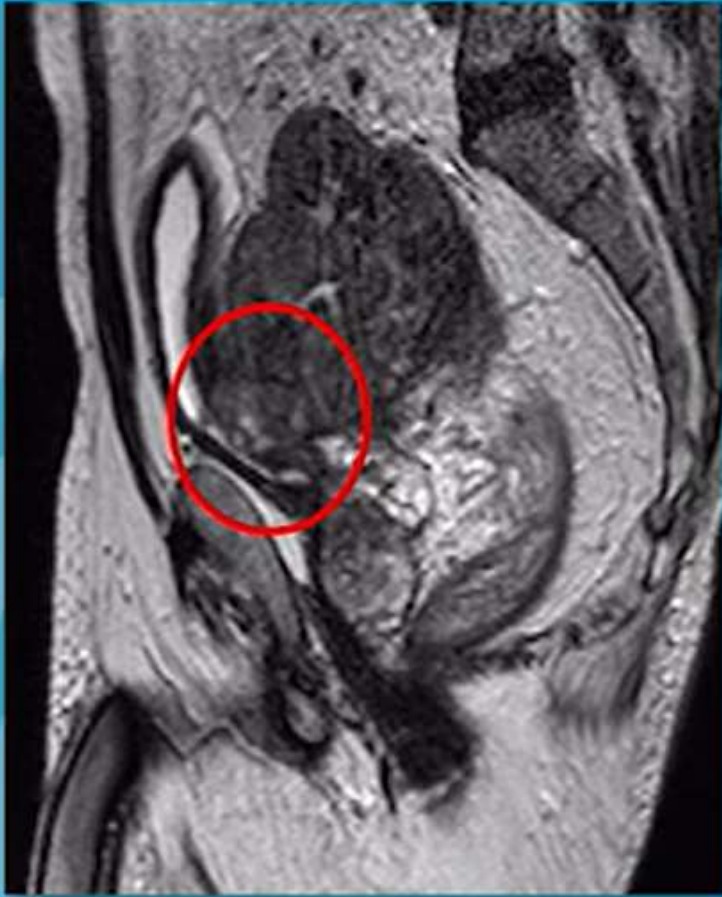
# T-stage

- T4

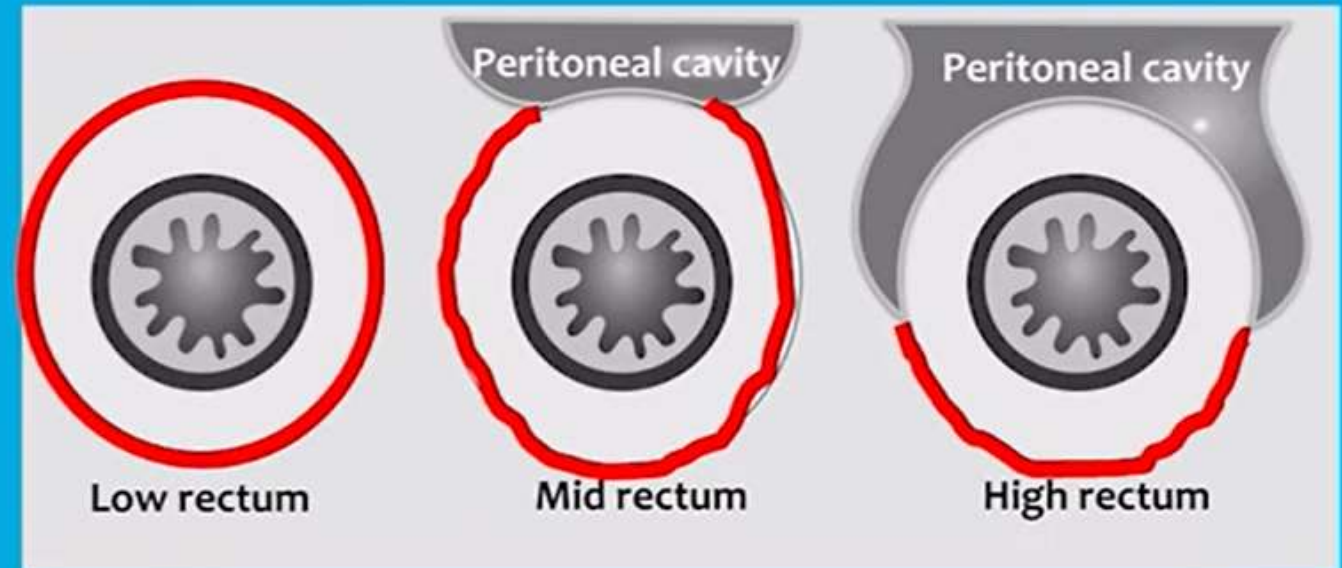
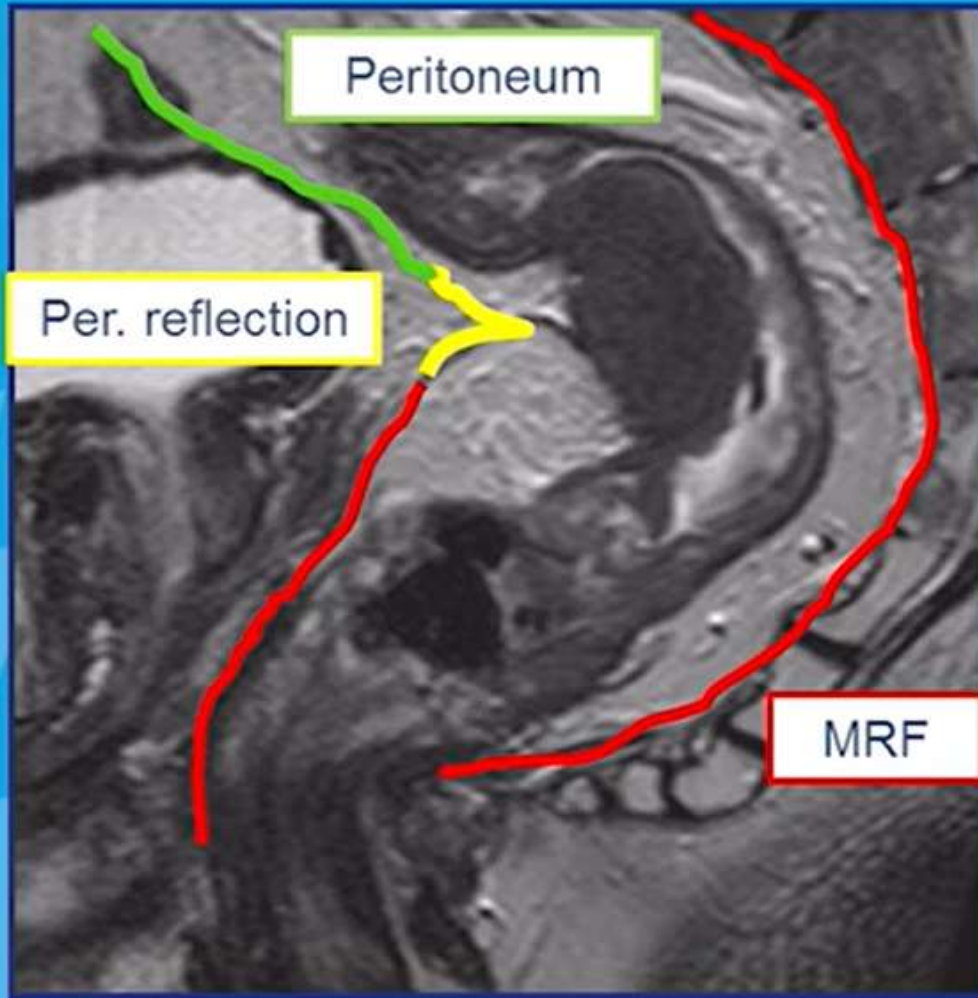


# T-stage

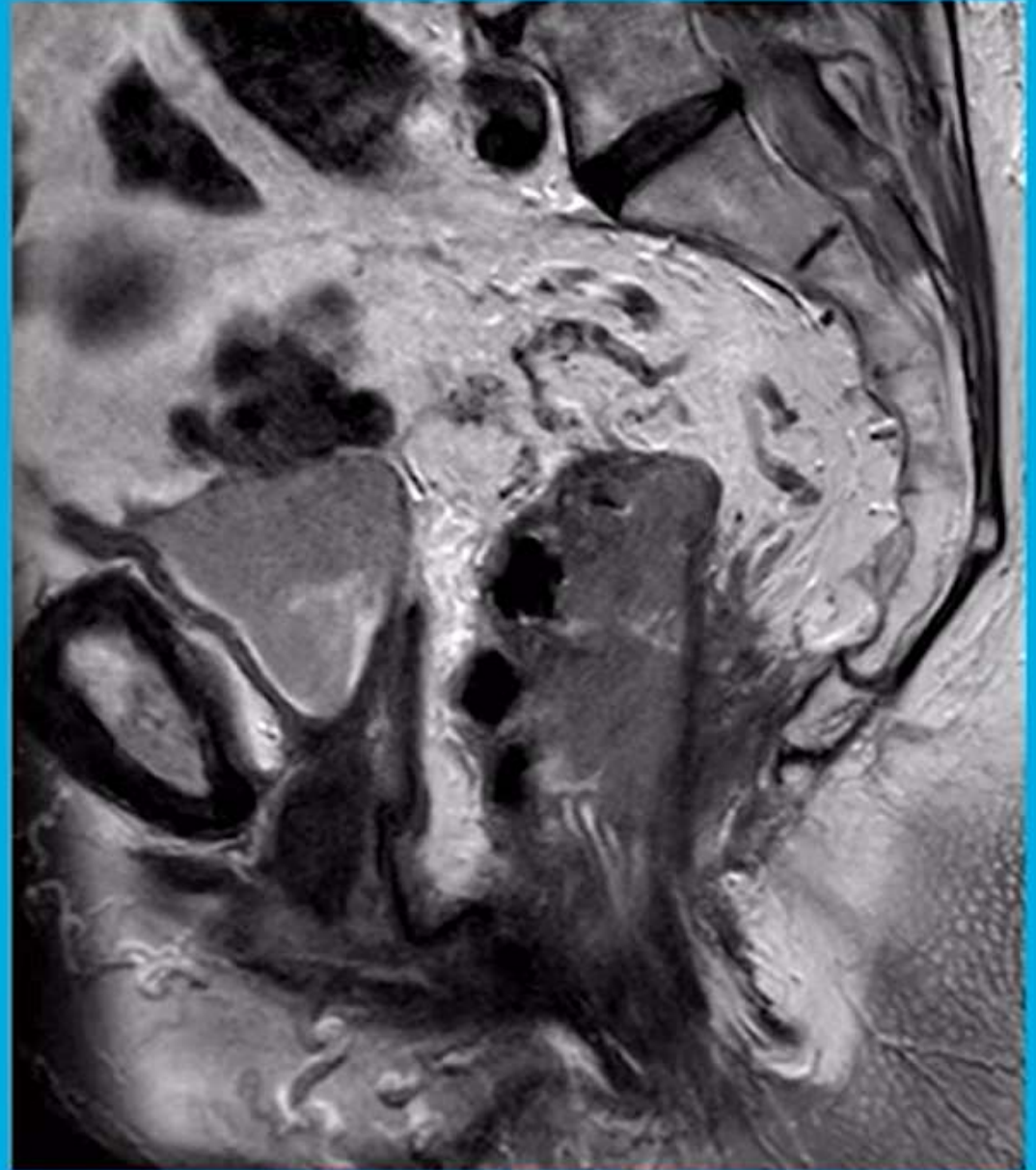
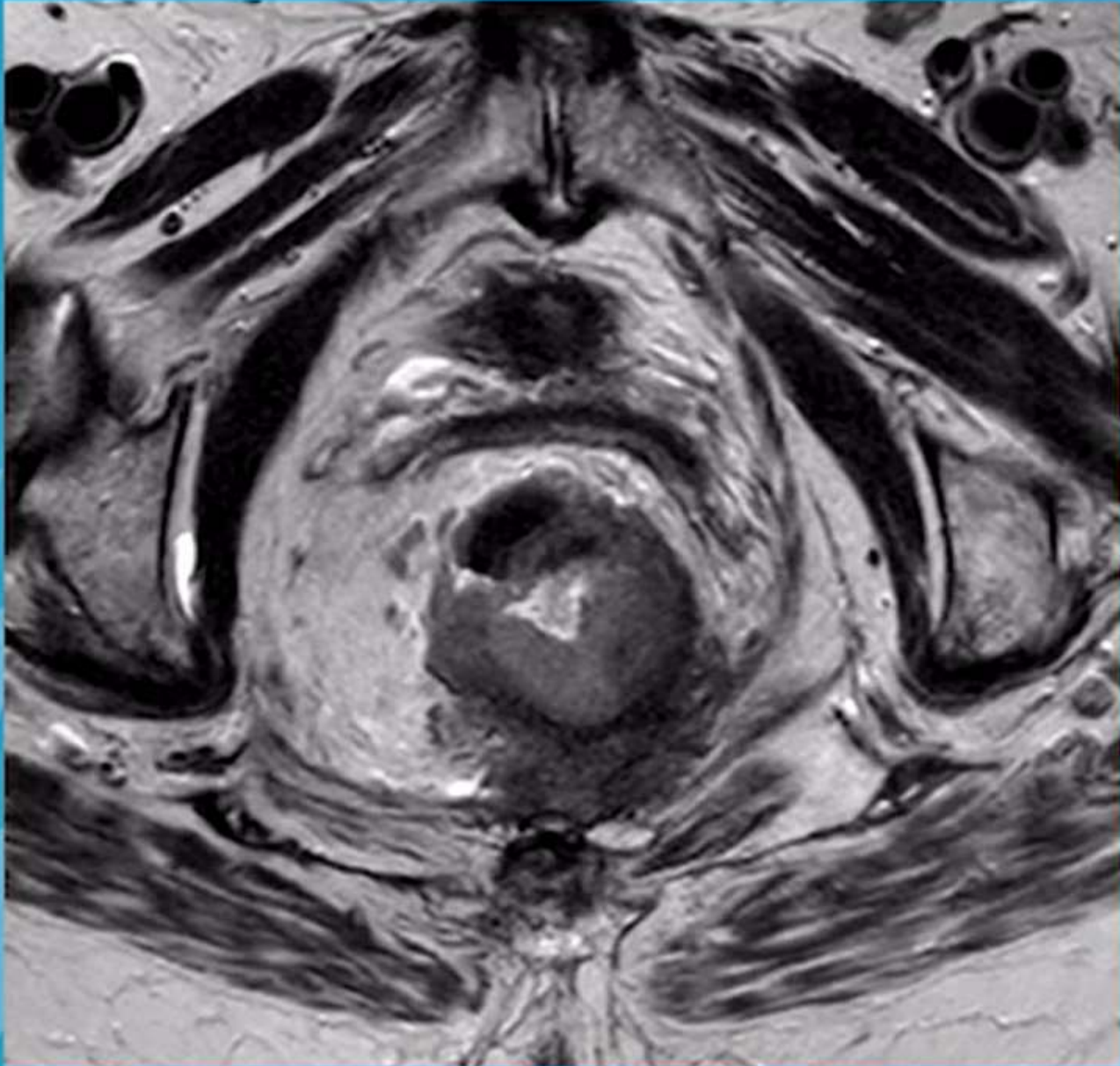
- T4



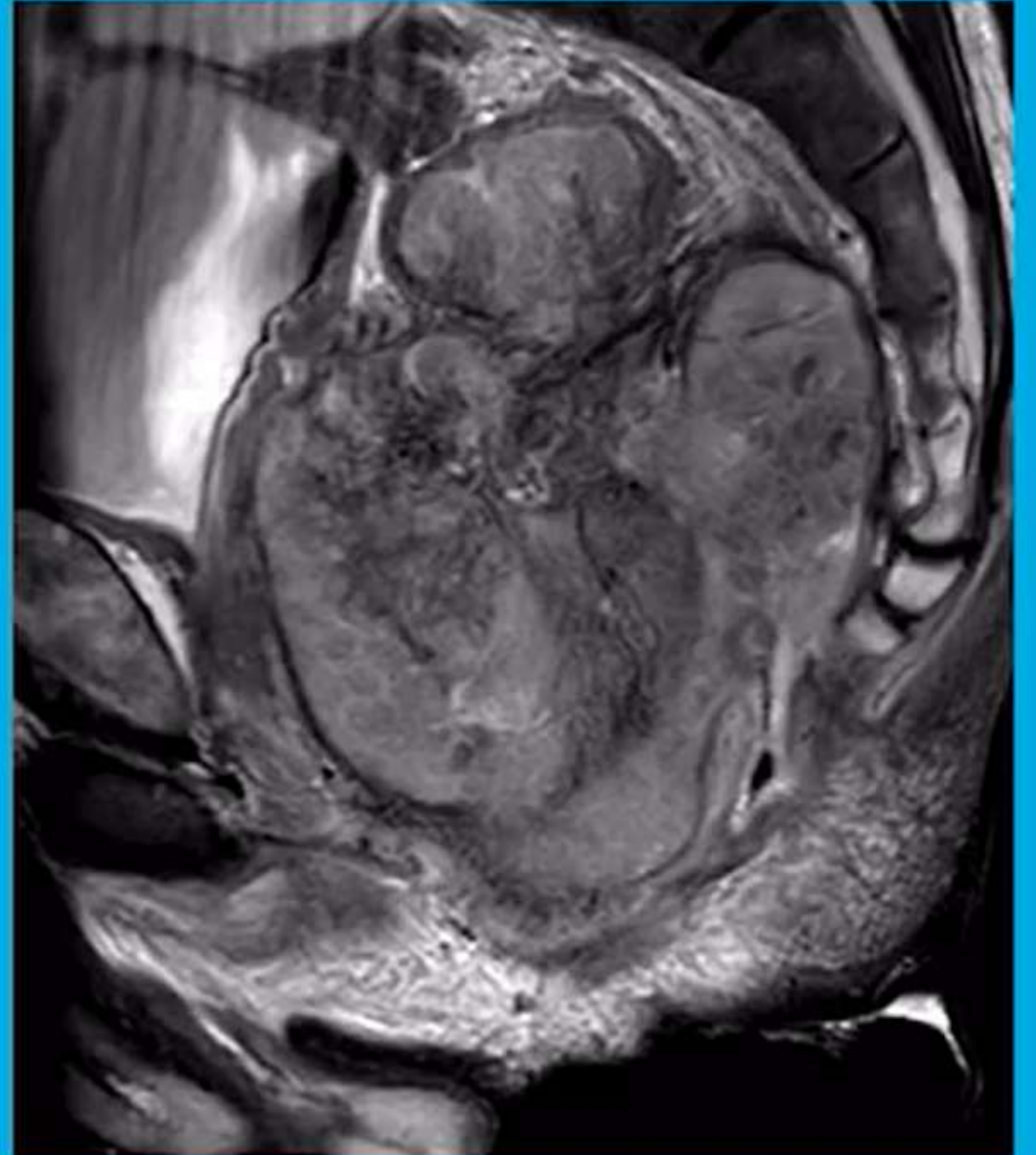
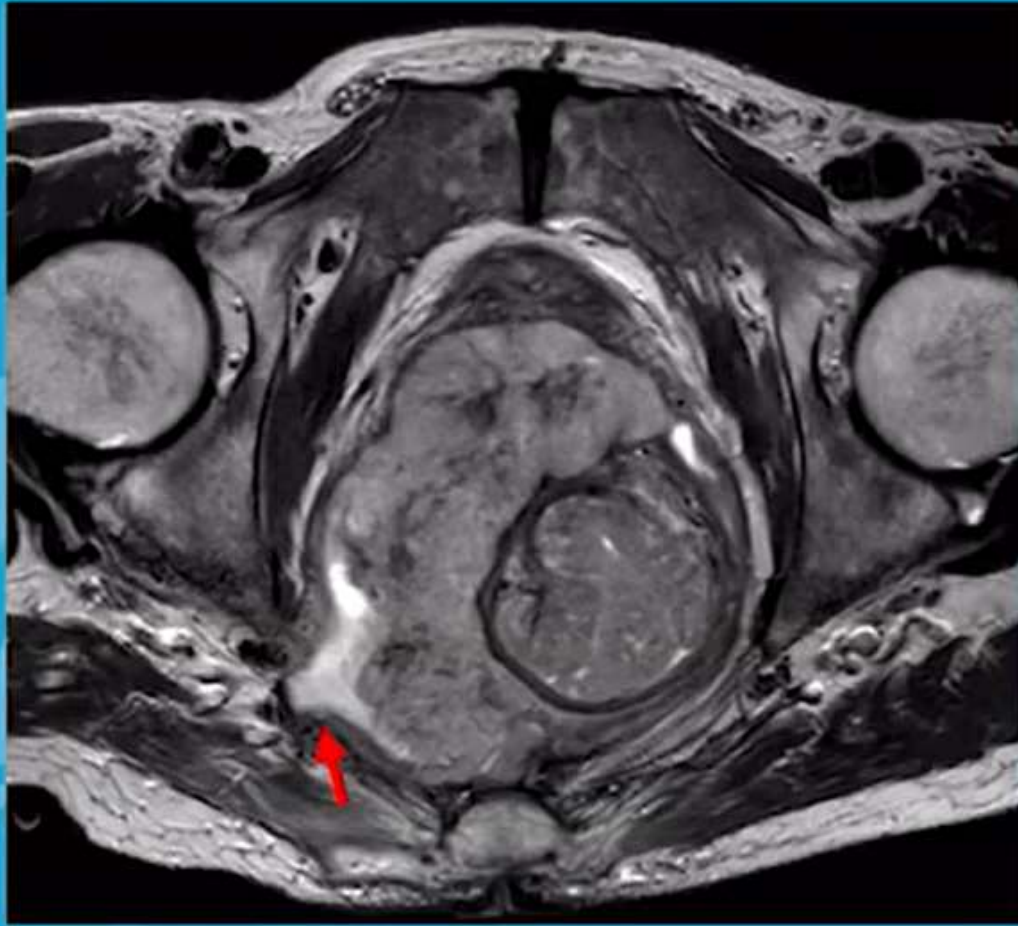
# Fascia Mesorectal



# Fascia Mesorectal

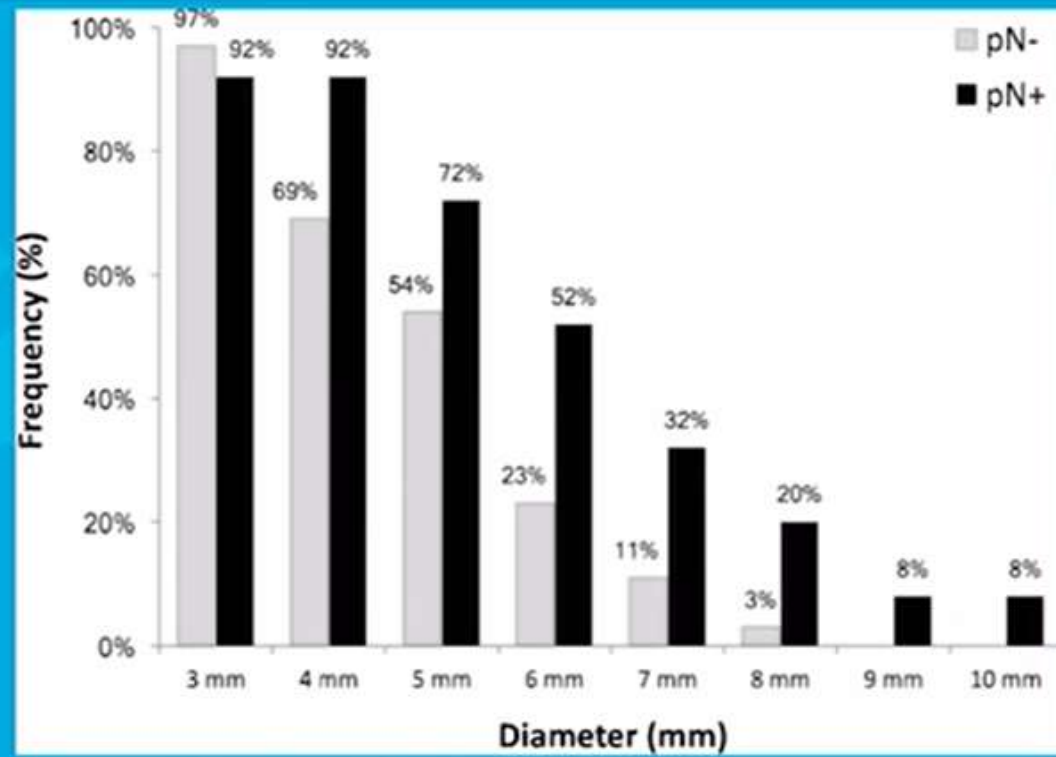


# Fascia Mesorectal



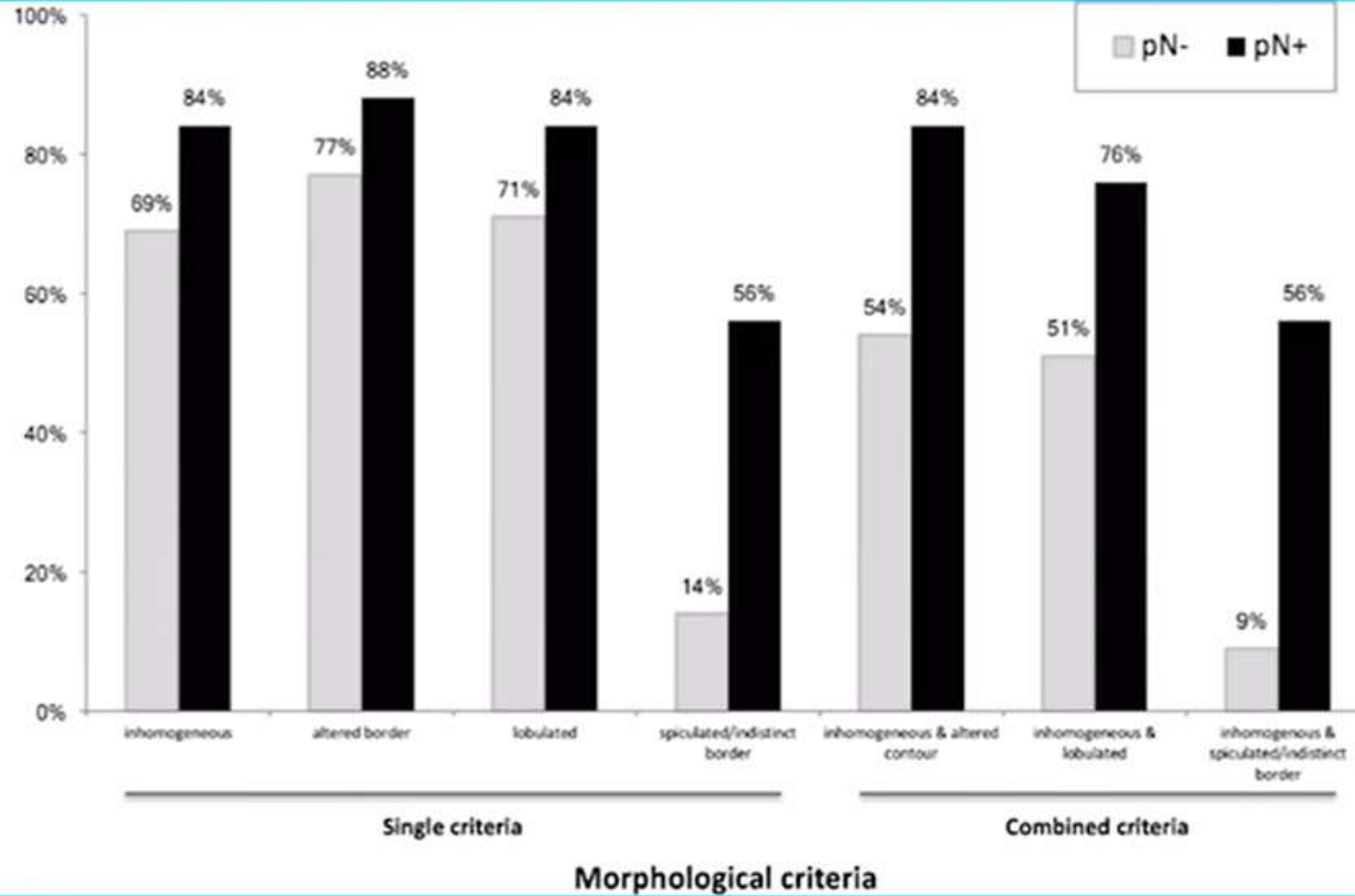
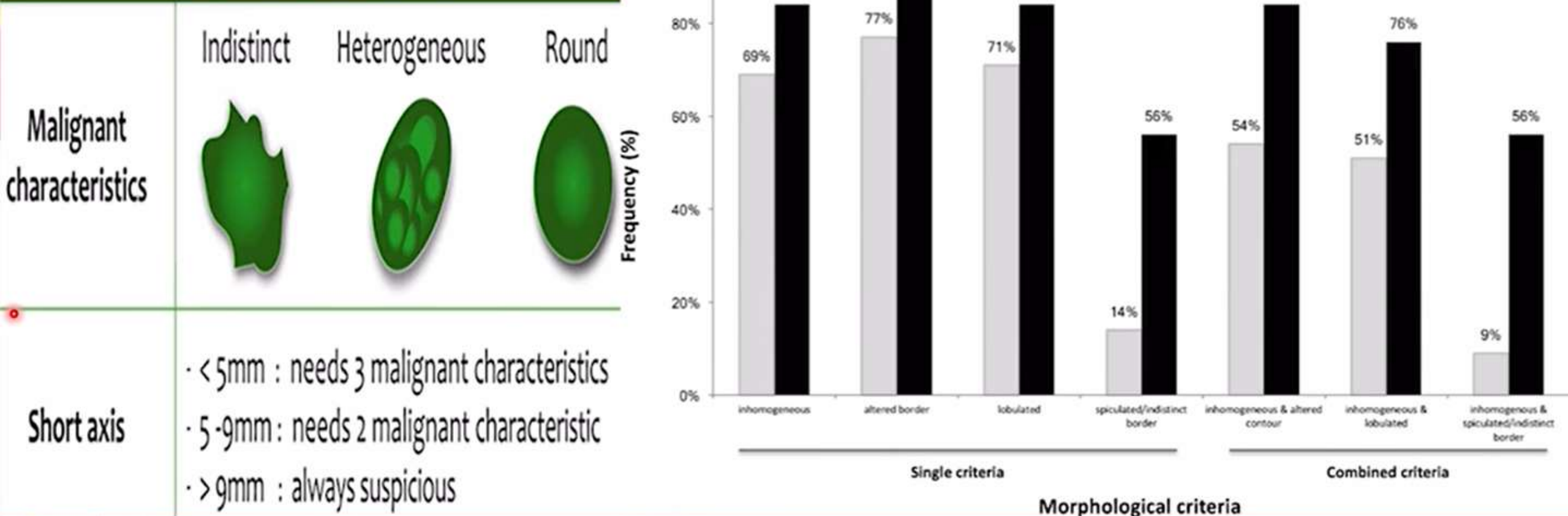
# N-stage

	<0.5 mm	<1 mm	<2 mm	<5 mm	<10 mm	≥10 mm	Sum
Negative LN	165	138	245	270	26	0	844
Positive LN	4	7	23	57	28	9	128
Sum	169	145	268	327	54	9	972
Percent	17.39%	14.92%	27.57%	33.64%	5.56%	0.93%	100.00%

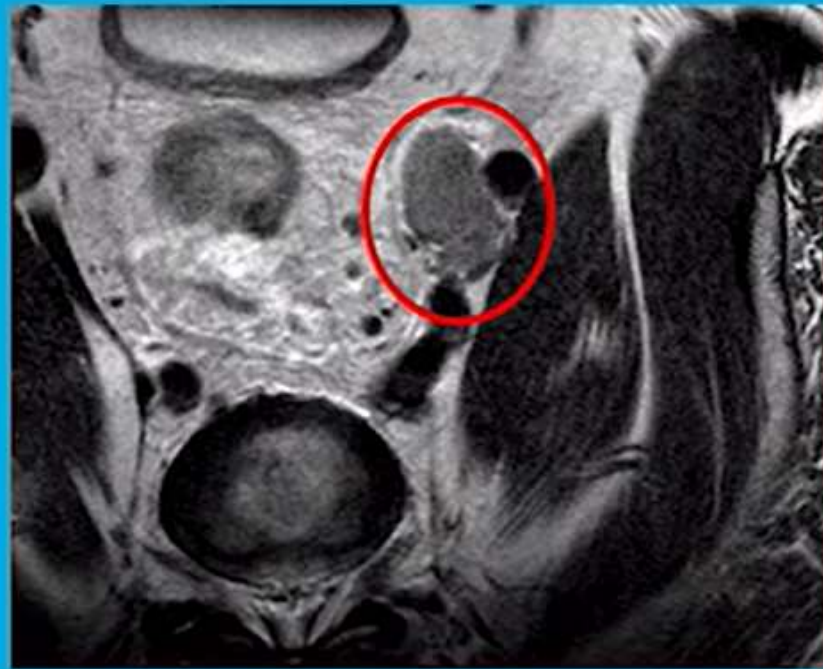


# N-stage

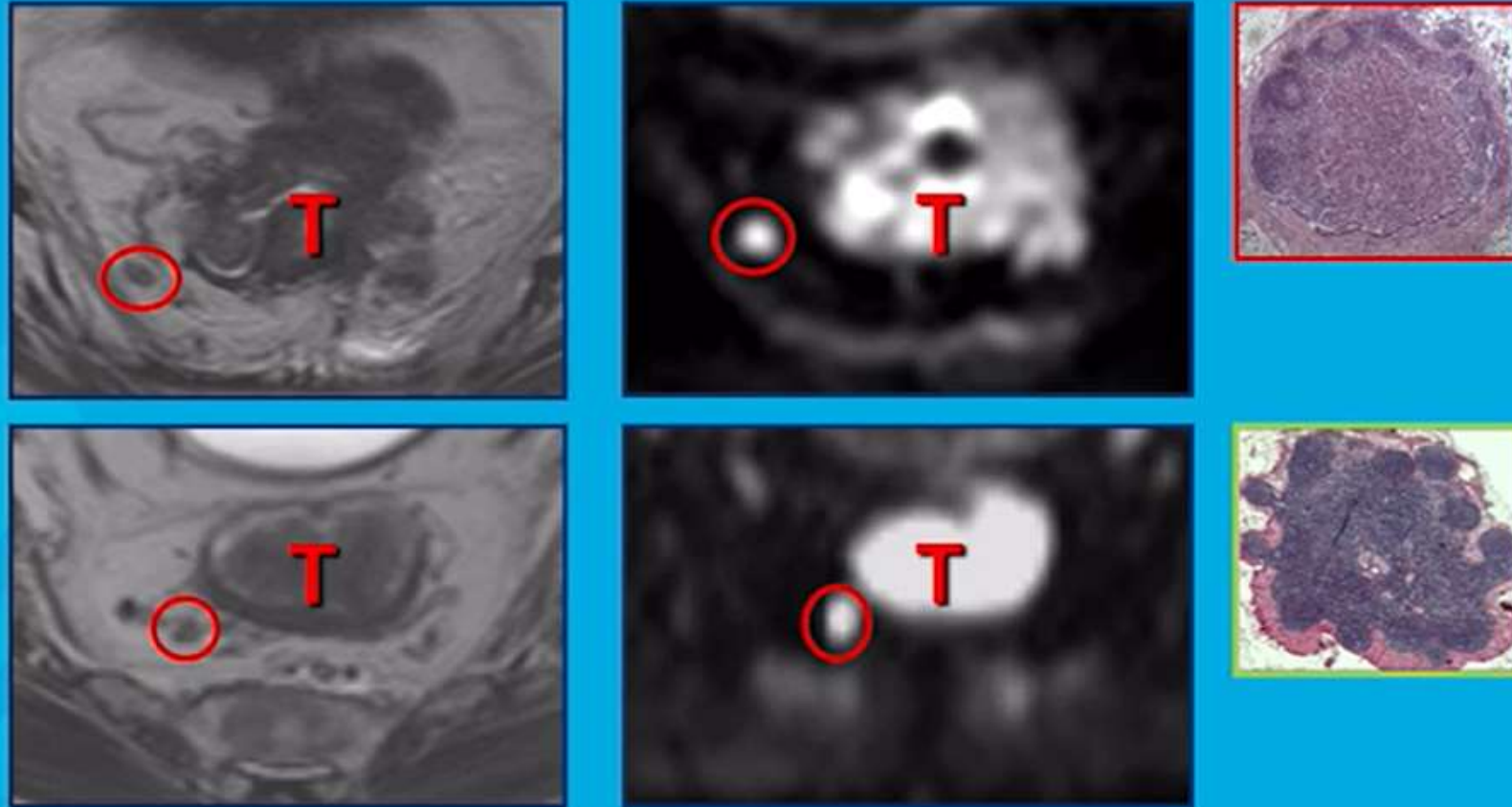
## N-stage - suspicious nodes



# N-stage



# N-stage



# EMVI

Chand et al., BJC 2014  
Siddiqui et al., Br J Cancer 2017

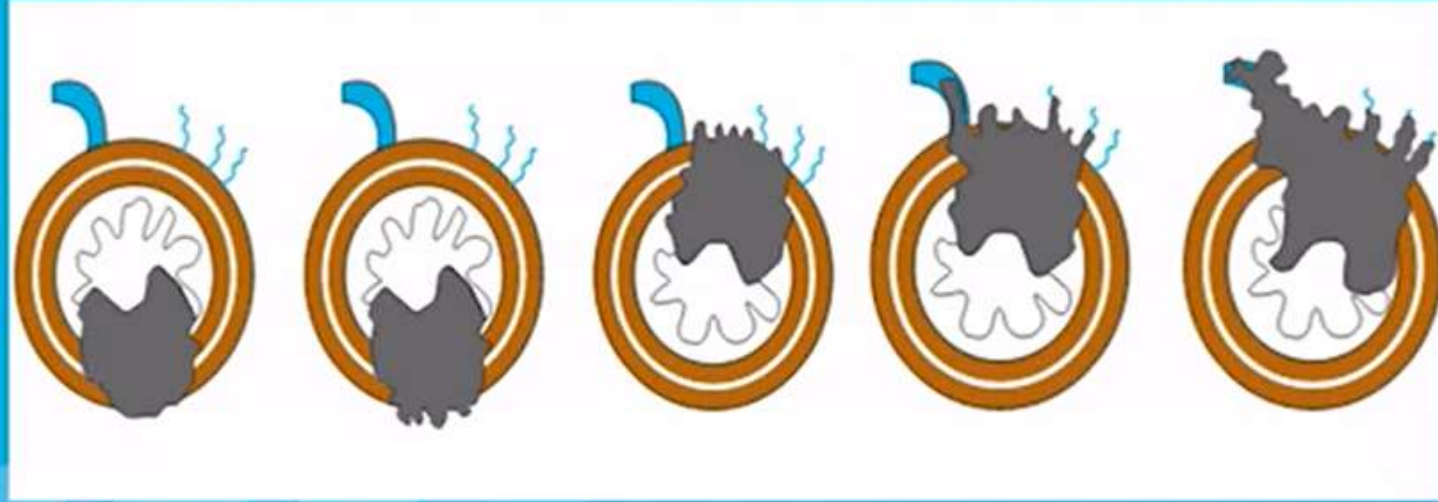
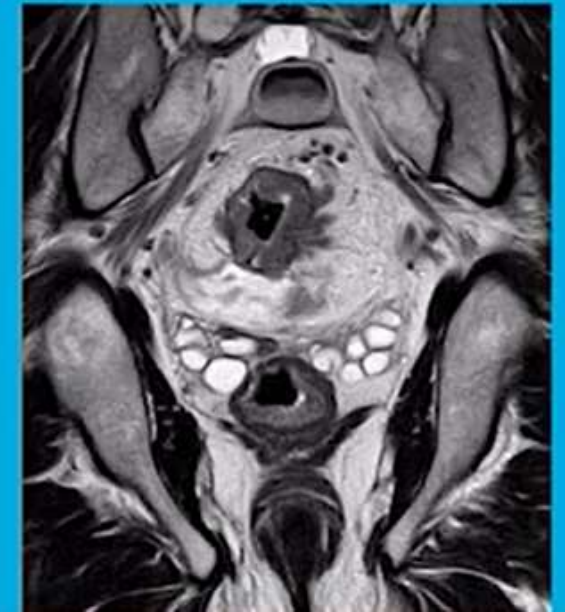
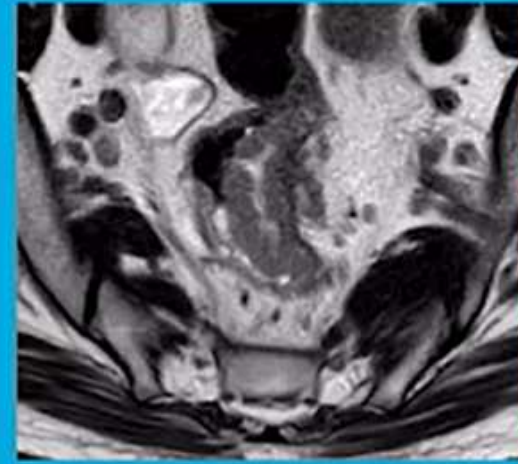
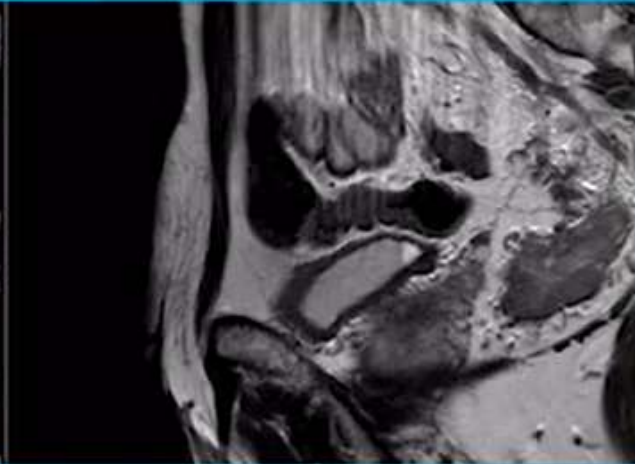
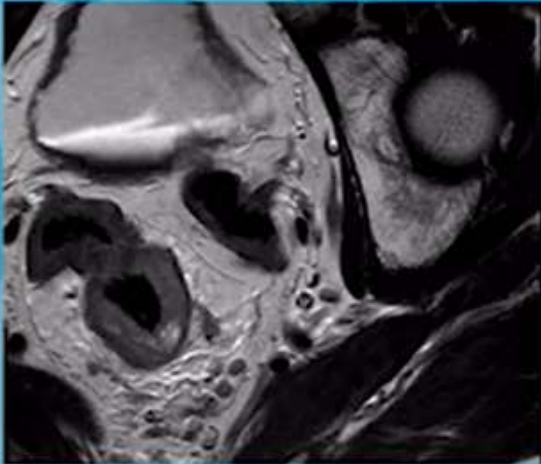


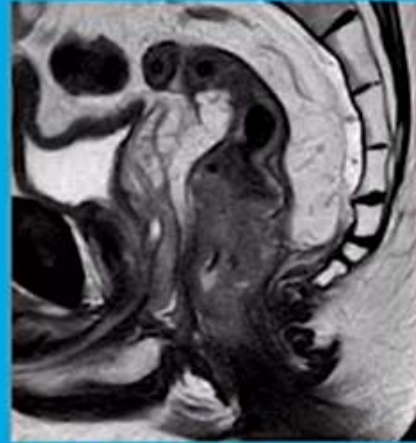
Table 1. MRI characteristics of EMVI (mrEMVI)

MRI score	Morphology features on MRI	MRI status
0	Pattern of tumour extension through the rectal wall is not nodular; no adjacent vessels	Negative
1	Minimal extramural stranding; no adjacent vessels	Negative
2	Stranding in proximity of vessels but no tumour signal in normal calibre lumen	Negative
3	Intermediate signal in lumen of vessels; slight vessel expansion	Positive
4	Irregular vessel contour; definite tumour signal	Positive

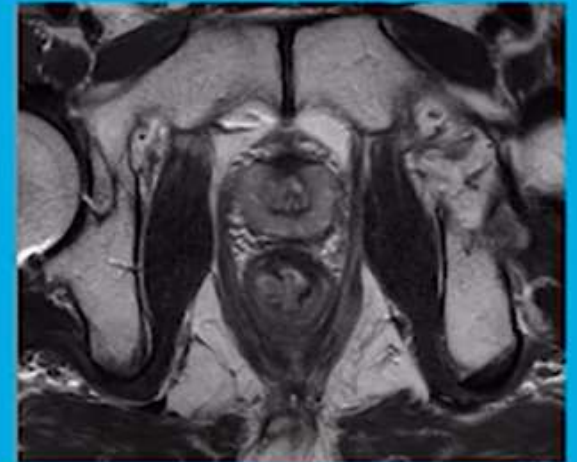
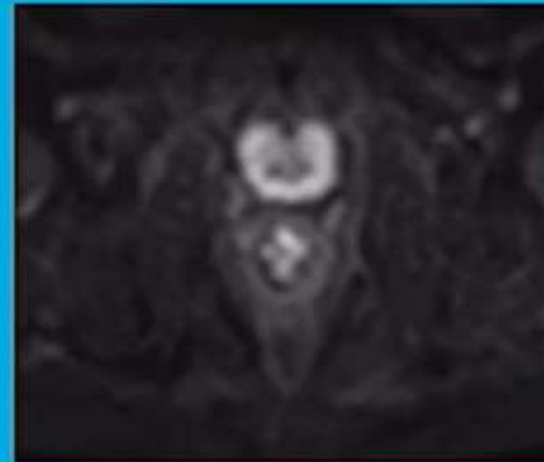


# Quand ?

- Primary/recurrent staging



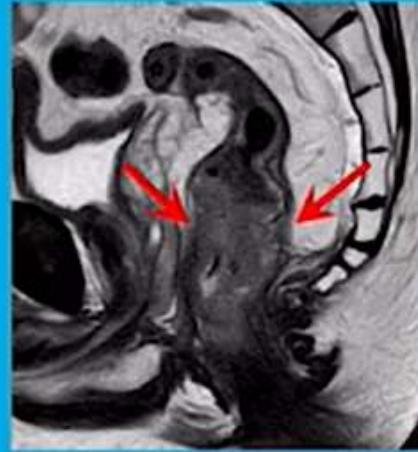
- Restaging after neoadjuvant treatment



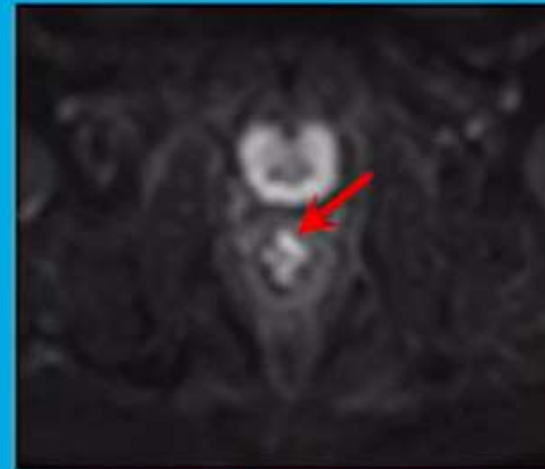
- During follow-up after clinical complete response

# Quand ?

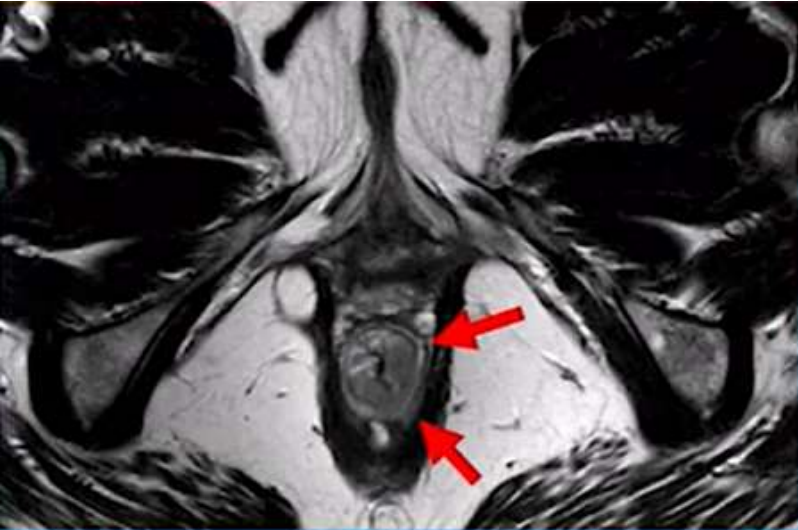
- Primary/recurrent staging

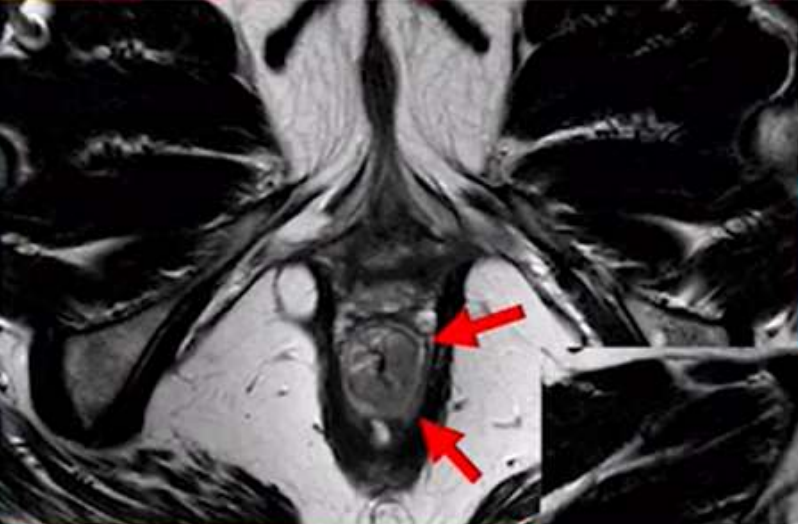


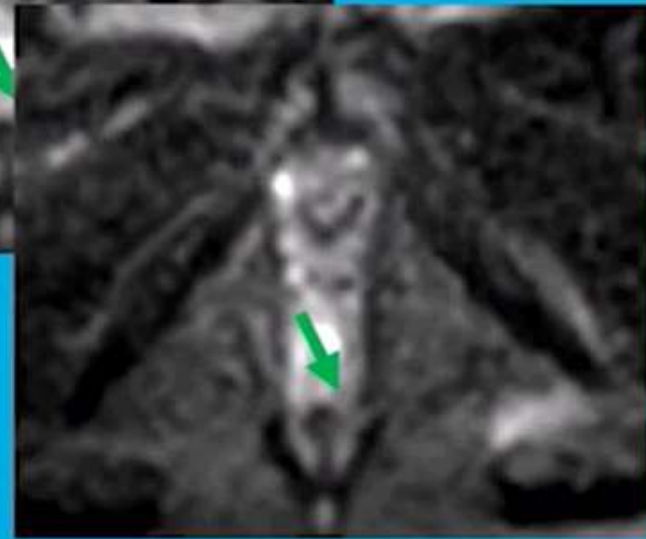
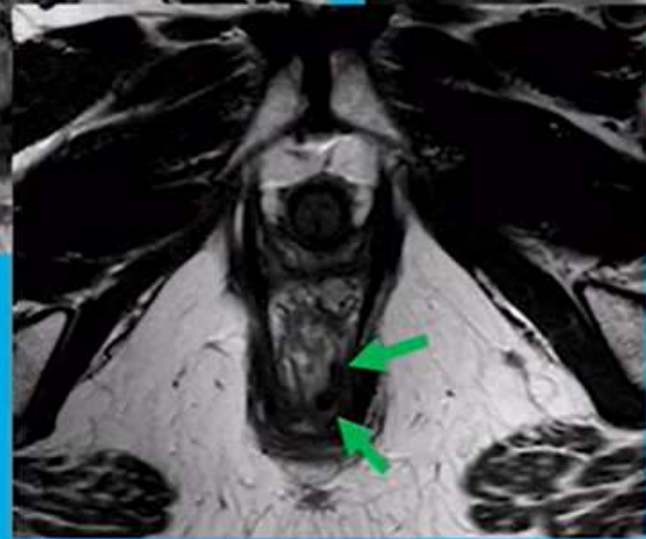
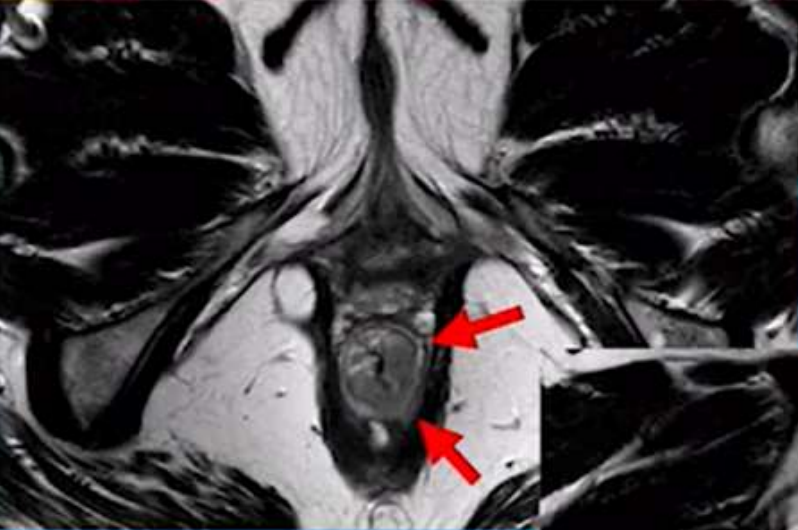
- Restaging after neoadjuvant treatment

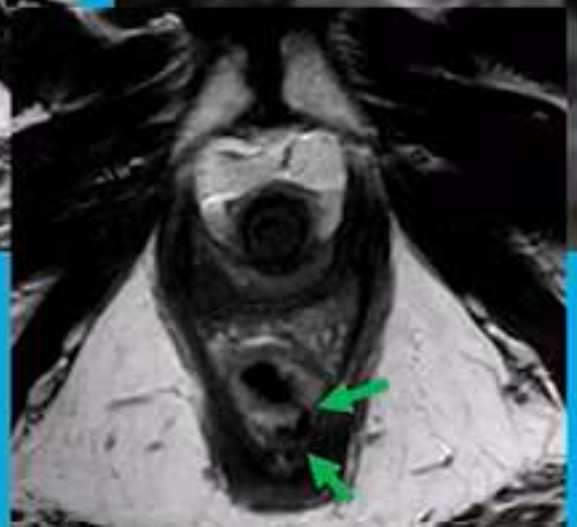
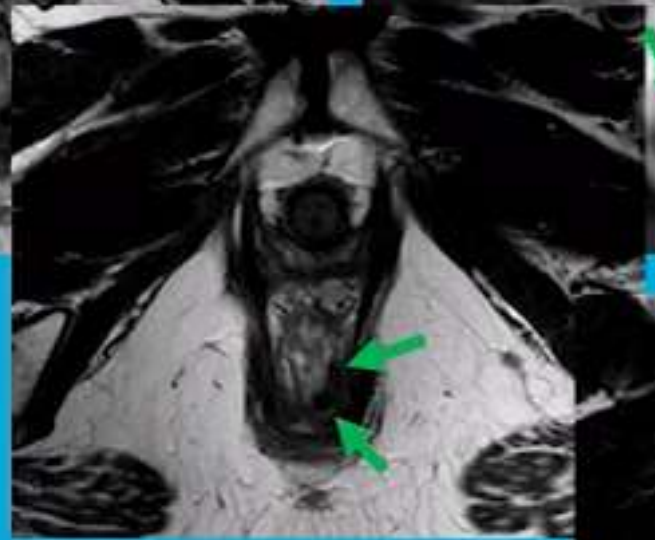


- During follow-up after clinical complete response









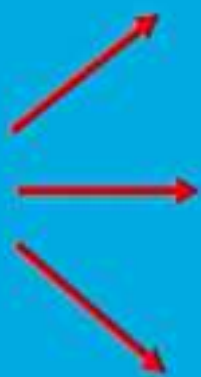
# Enjeux

- Differentiation between:
  - T1 and T2
  - T2 and T3a
  - N- and N+
  - Fibrosis and viable tumor
- Timing of scan after CRT and during follow-up



M  
R  
I

+ MDT



## OPTIMAL Tx

- Short RT
- RCT
- TNT
- R(C)T followed by CT
- (ta)TME
- Extended TME
- Local excision
- Watch and wait