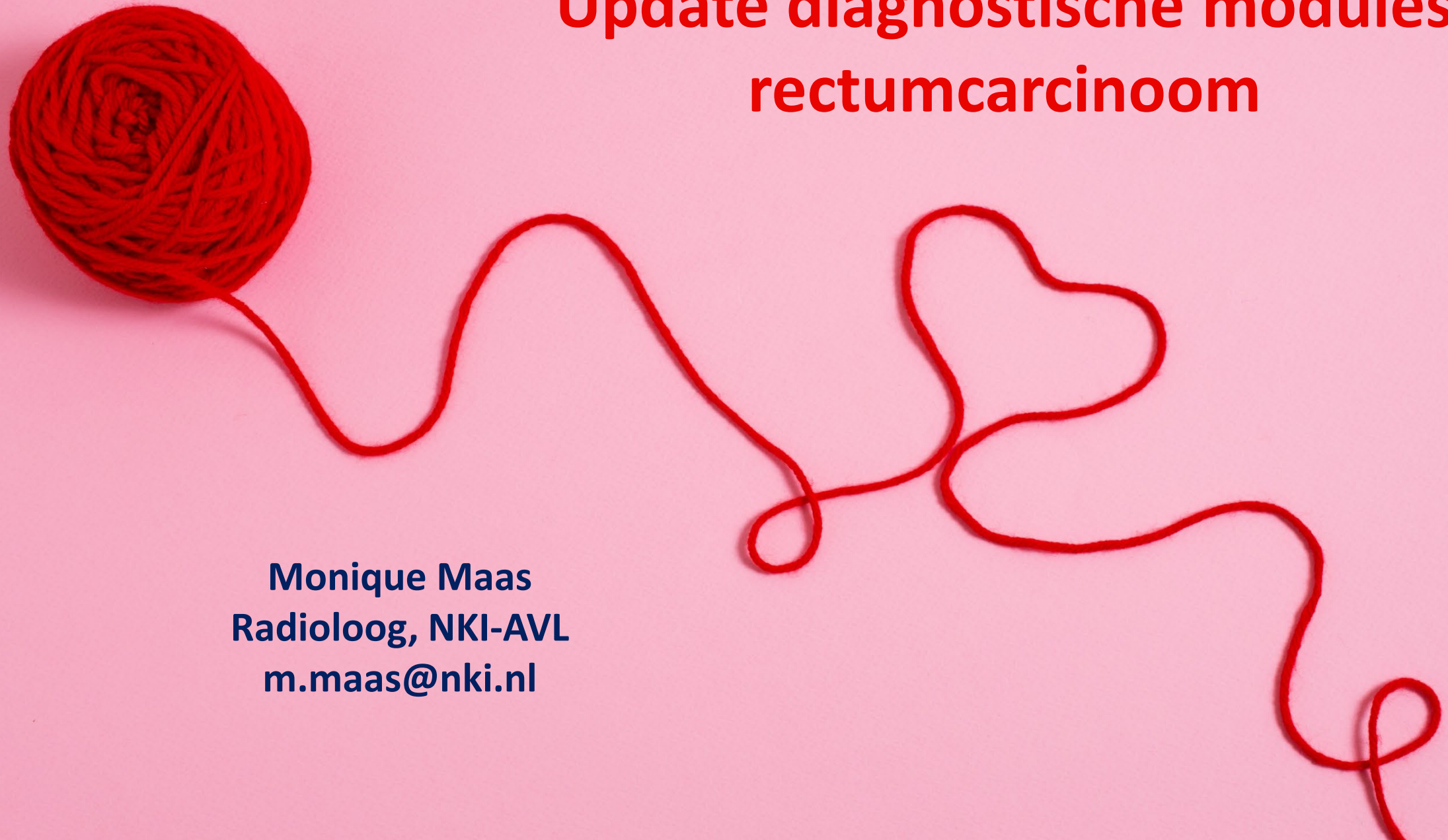
Update diagnostische modules rectumcarcinoom



Monique Maas
Radioloog, NKI-AVL
m.maas@nki.nl

Update Richtlijn Colorectaal carcinoom - diagnostiek

Modules:

- **Primaire stadiëring rectumcarcinoom**
- **Restadiëring rectumcarcinoom**
- **Follow-up vroegcarcinoom colon en rectum**
- **Lokaal recidief rectumcarcinoom**

- **Snel online:**
  - Stadiëring coloncarcinoom
  - Aanvullende beeldvorming bij metastasen
  - Follow-up na lokale therapie metastasen

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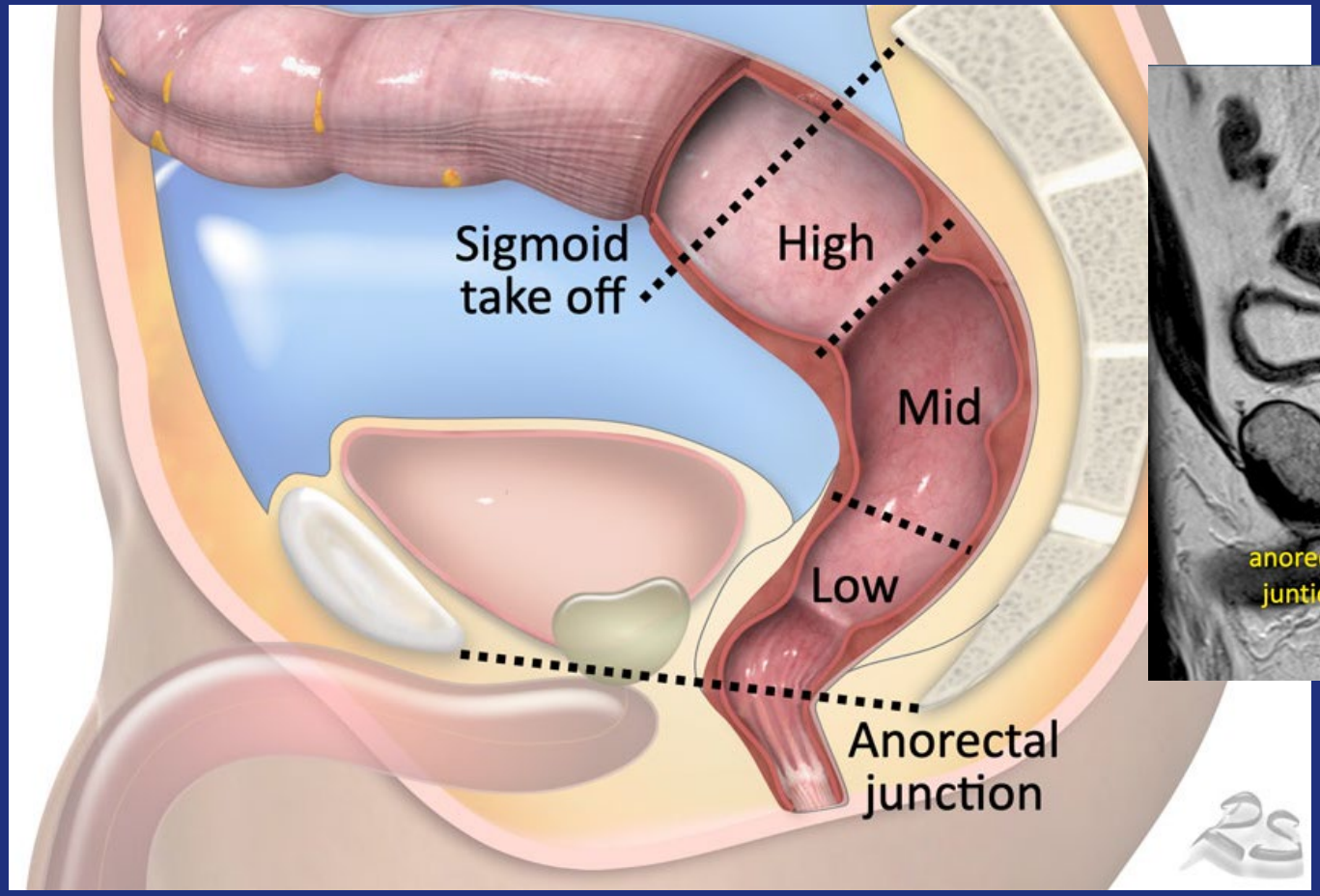
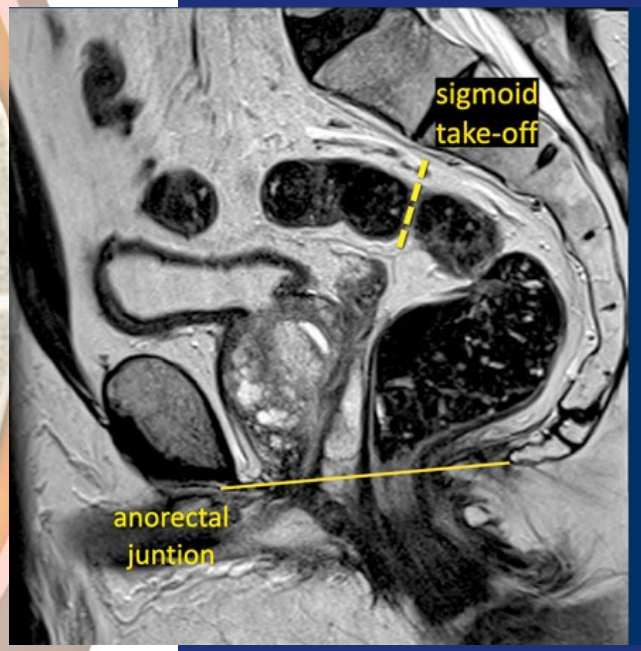
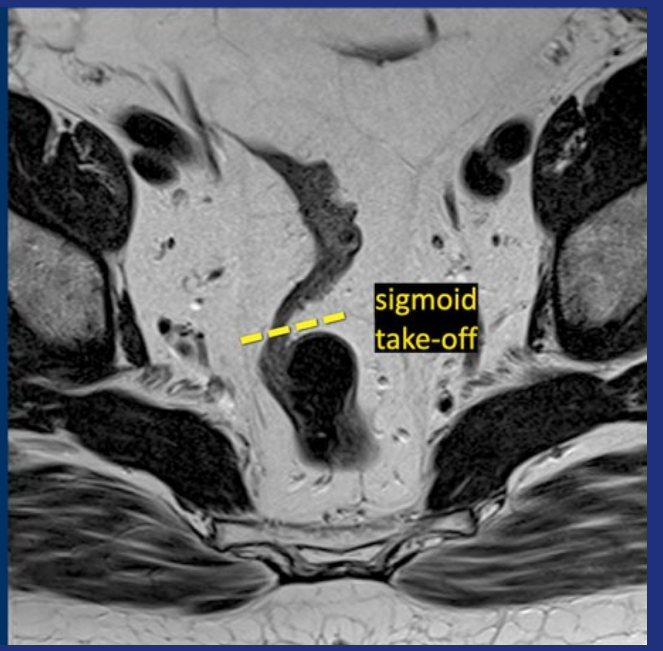
TUMORHOOGTE

Introductie van de sigmoid take-off

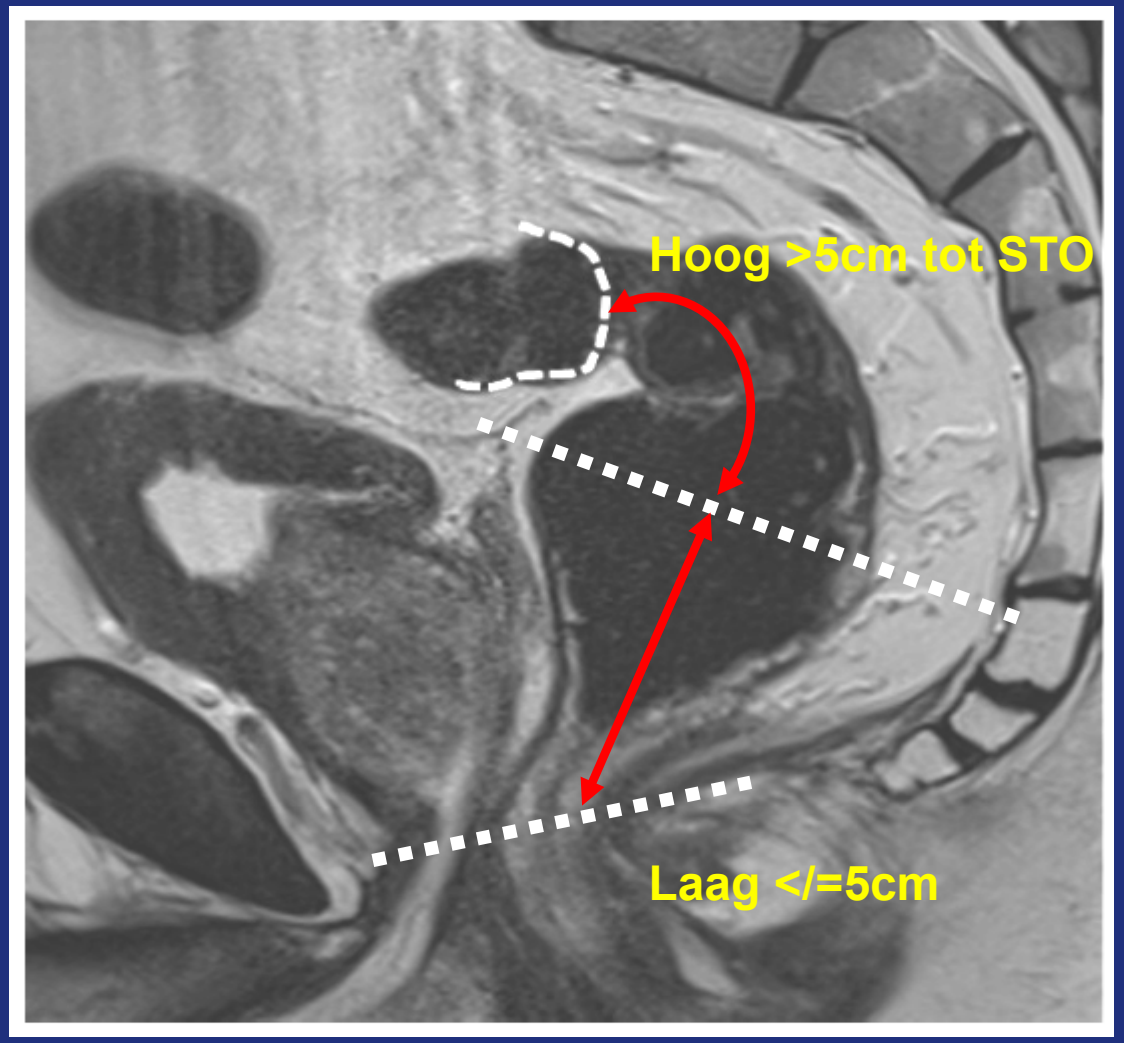




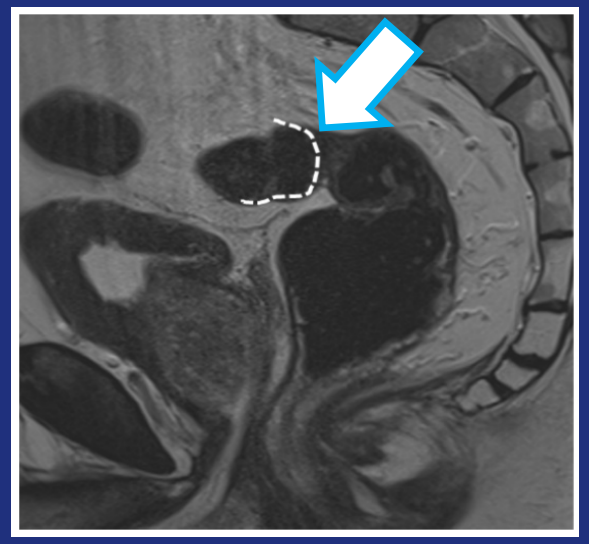


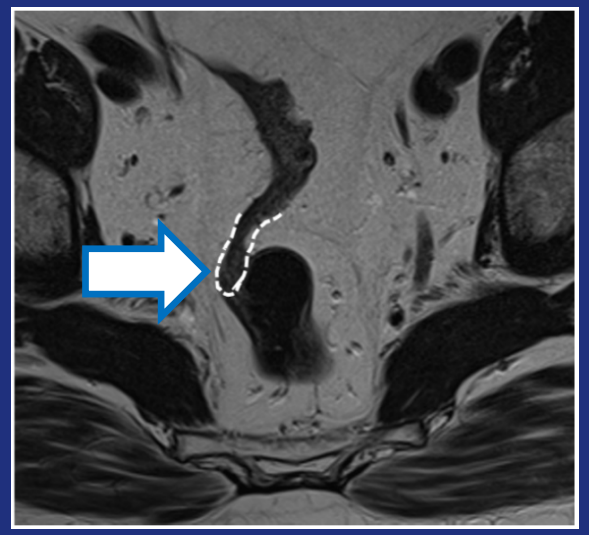
LET OP: als een tumor op de STO start, dan is het nog een rectumcarcinoom!

NIEUW - tweedeling rectum



Bestendiging sigmoid take-off





- **Sigmoid take-off =**

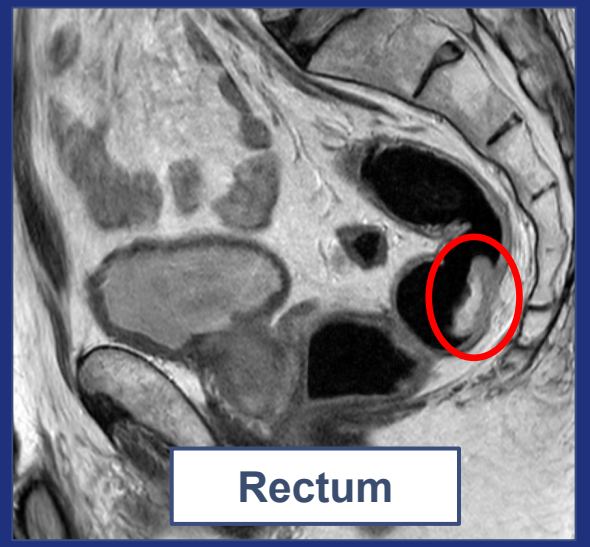
  Overgang rectum naar sigmoid

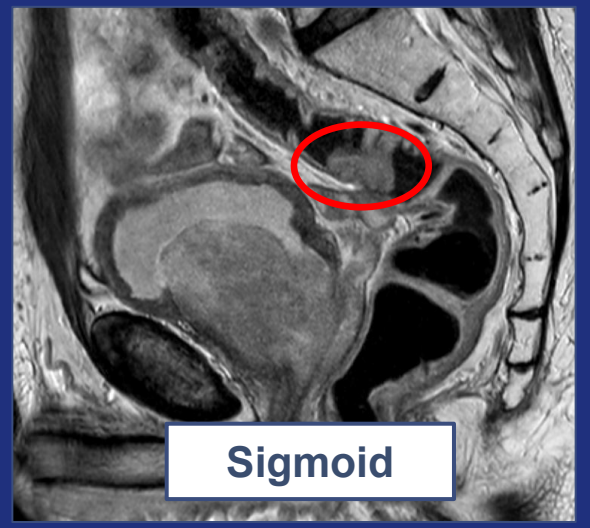
- **Op MRI:**

  - Sagittaal: sigmoid buigt horizontaal af

  - Axiaal: sigmoid buigt ventraal af

- **Kan een uitdaging zijn (IOA 0.19-0.81…)**





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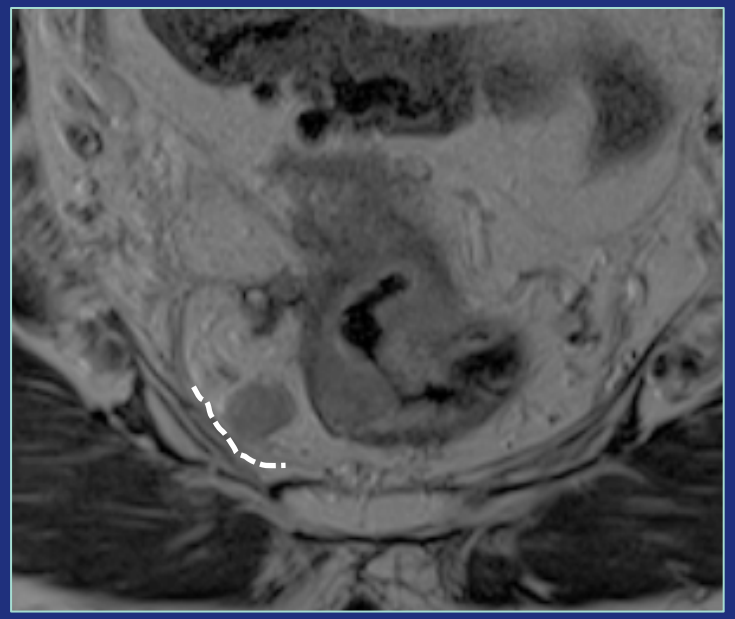
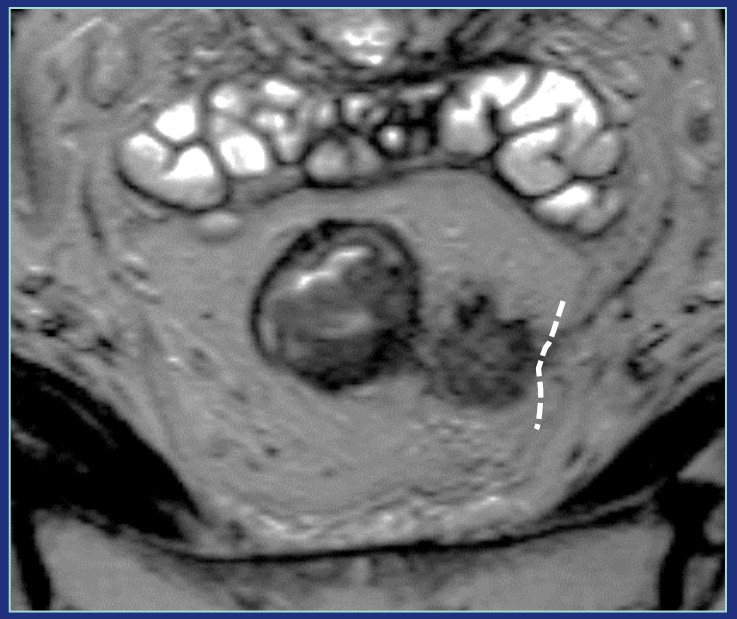
T-STAGING, OMSLAGPLOOI & MRF

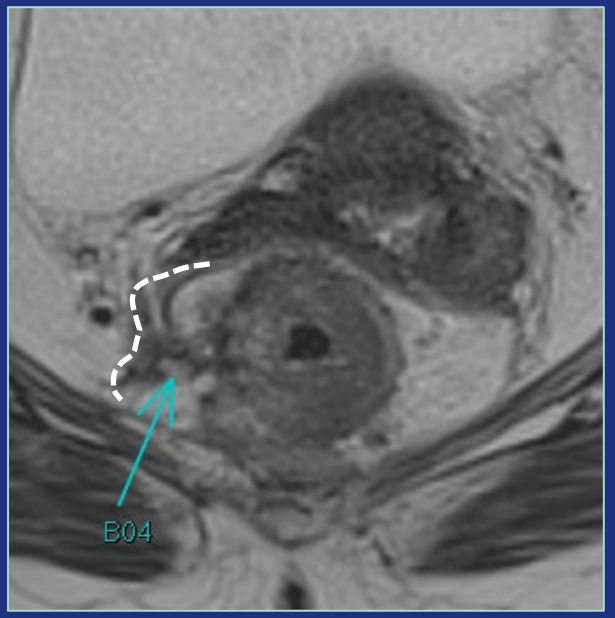
Bedreigde MRF bestaat niet meer: *betrokken of niet (afkap ≤1 mm)*



Vergrote, gladde
N+



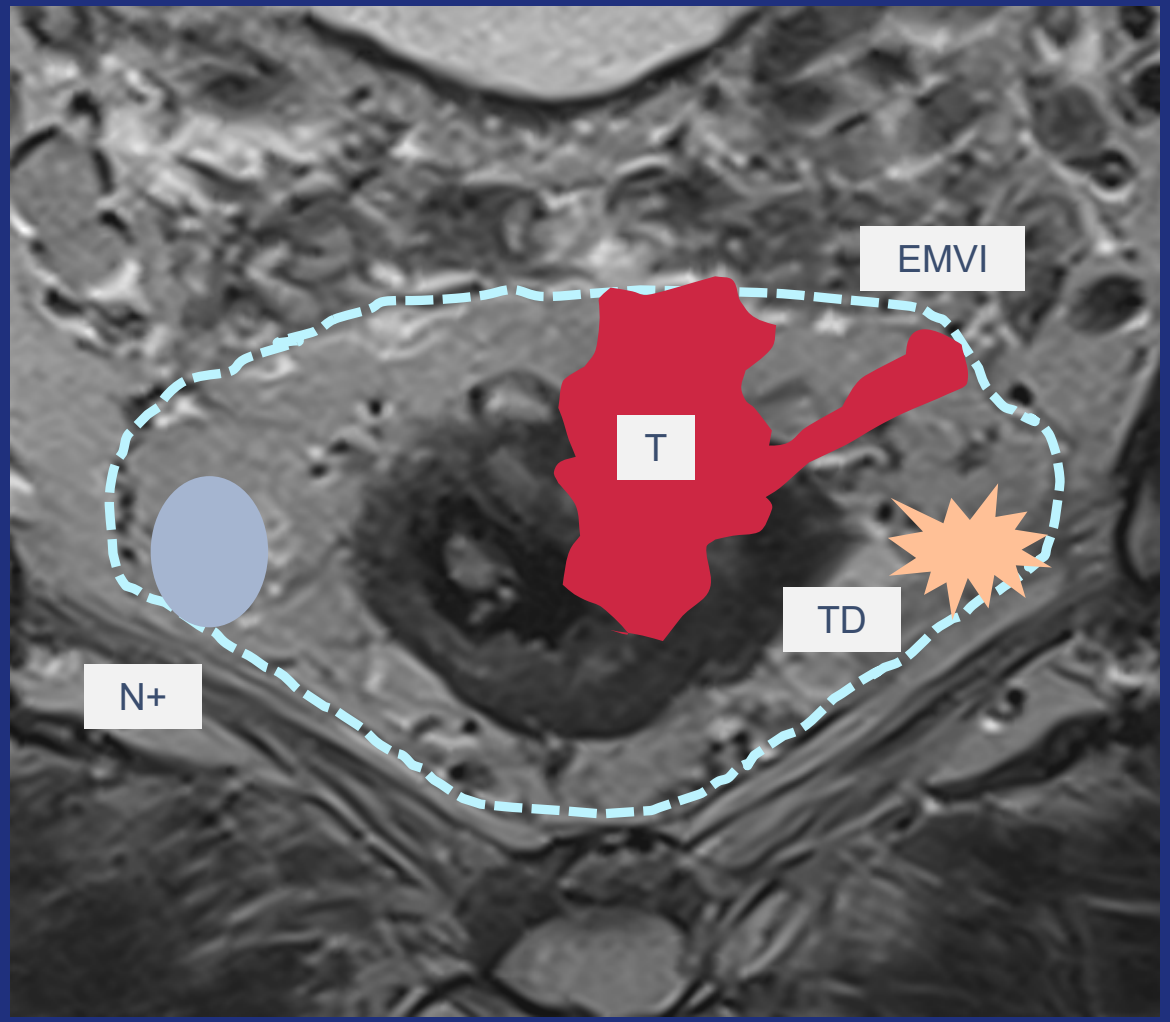
Irregulaire klier?
Deposit?
Tumor?



EMVI?

MRF-

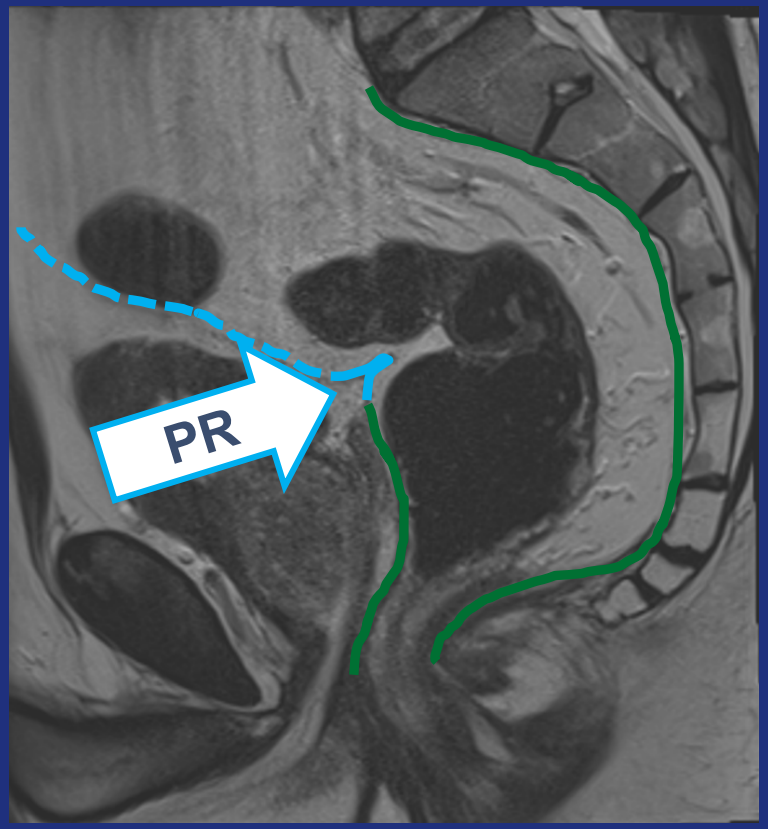
gladbegrensde klier

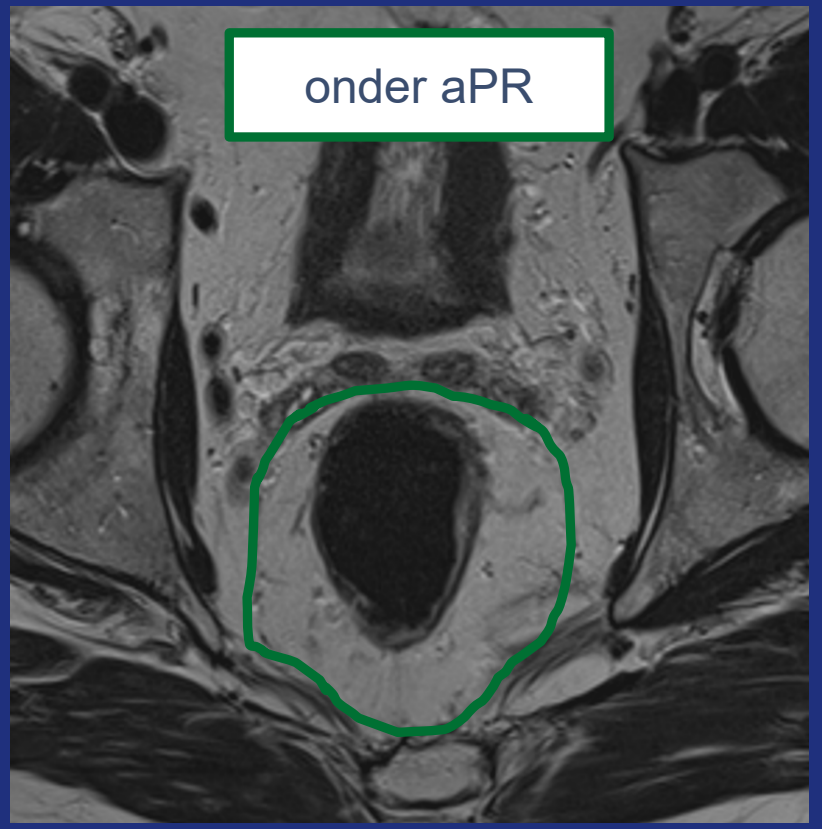


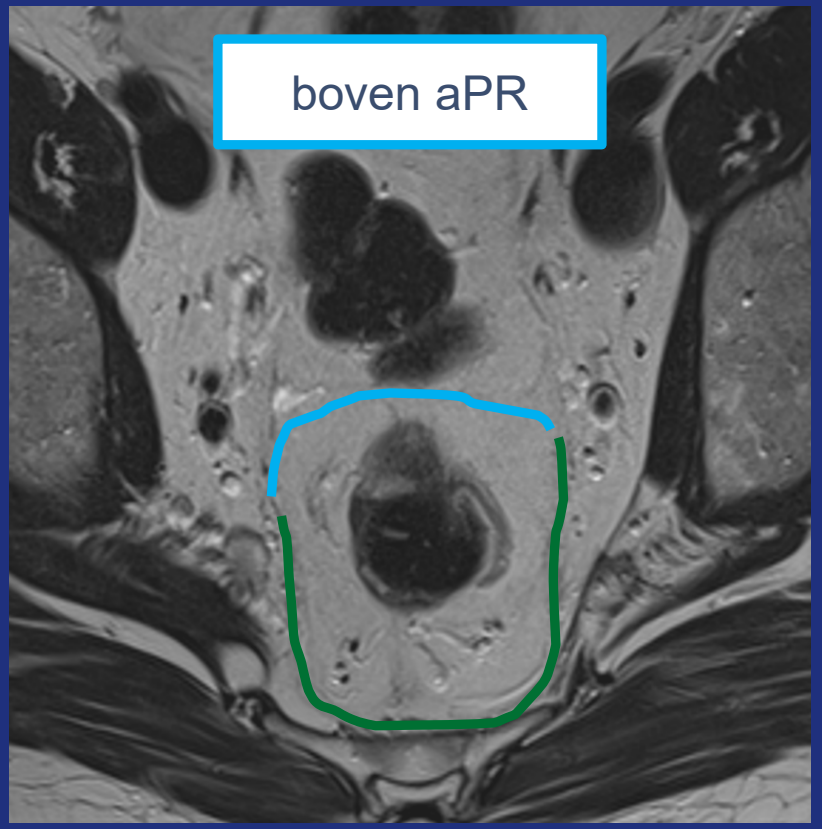
MRF+

tumor deposit
irregulaire klier
EMVI

Omslagplooi vs MRF



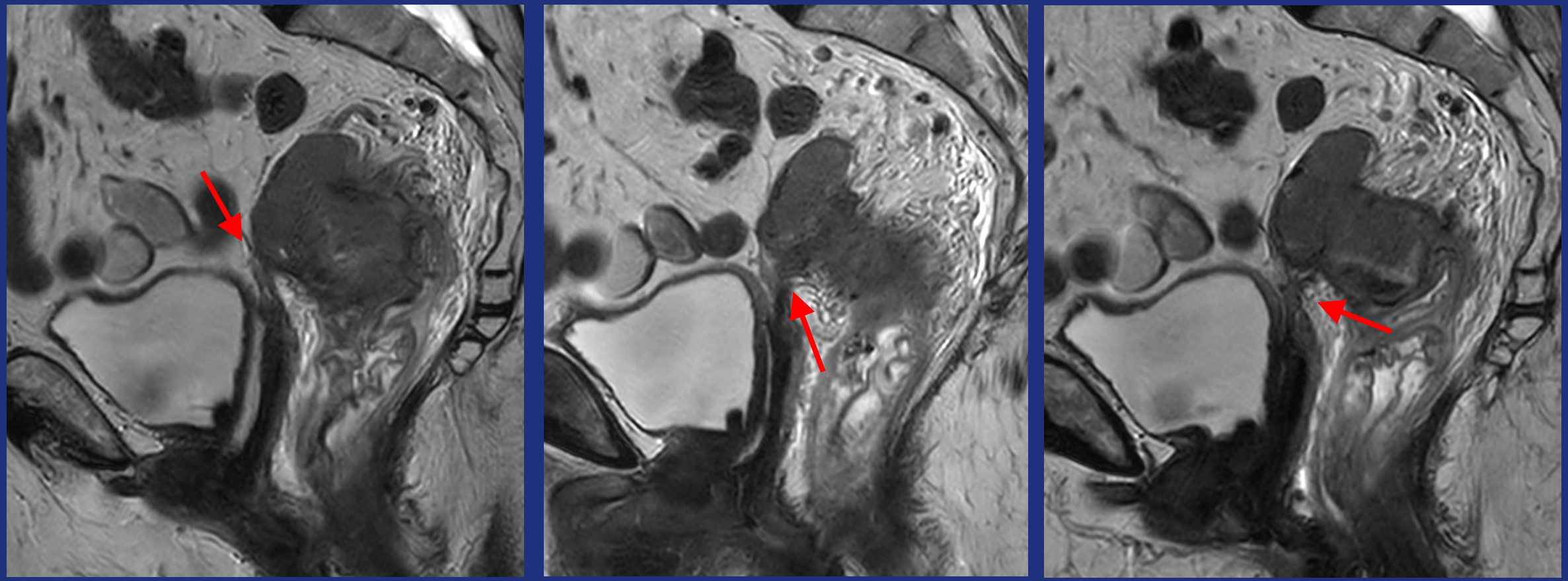




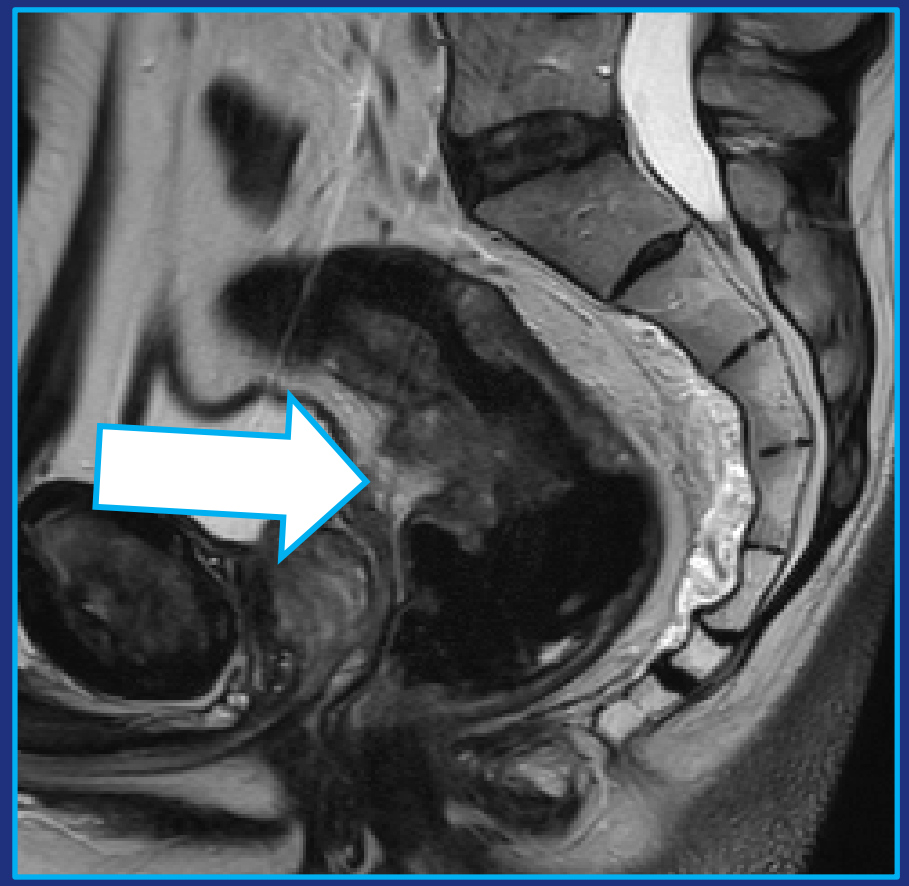
MRF invasie → cT3

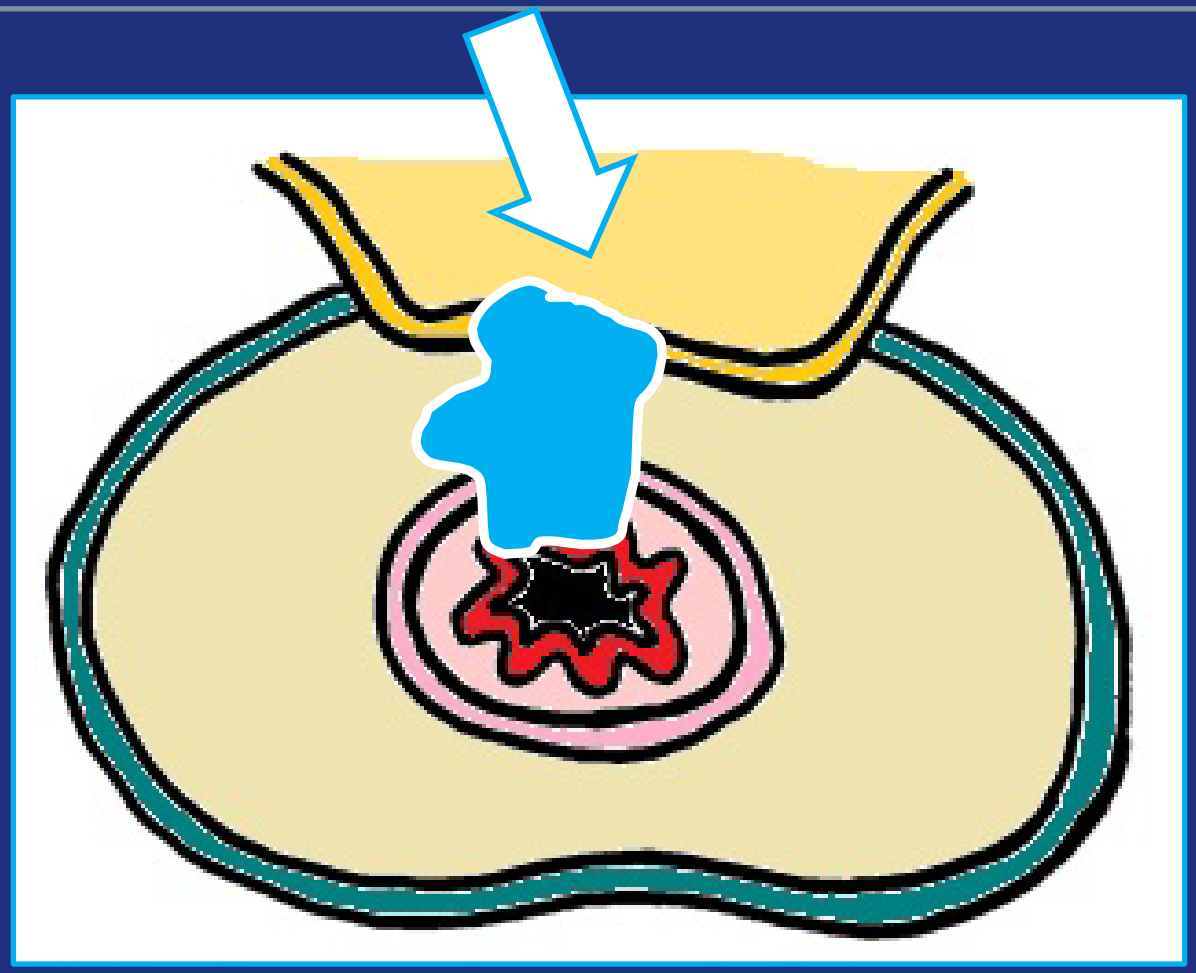
PR invasie → cT4a

MRF betrokkenheid *en* peritoneale invasie

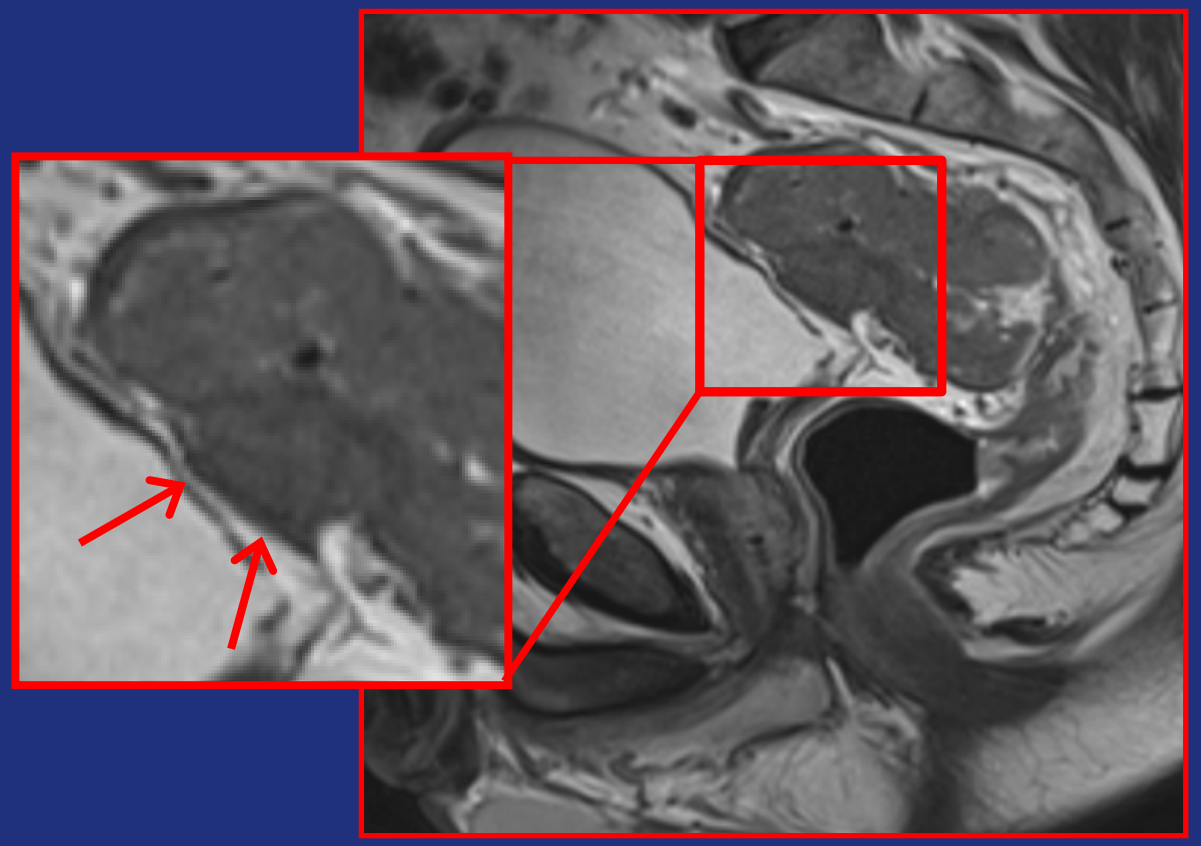


Omslagplooi invasie: cT4a tumor

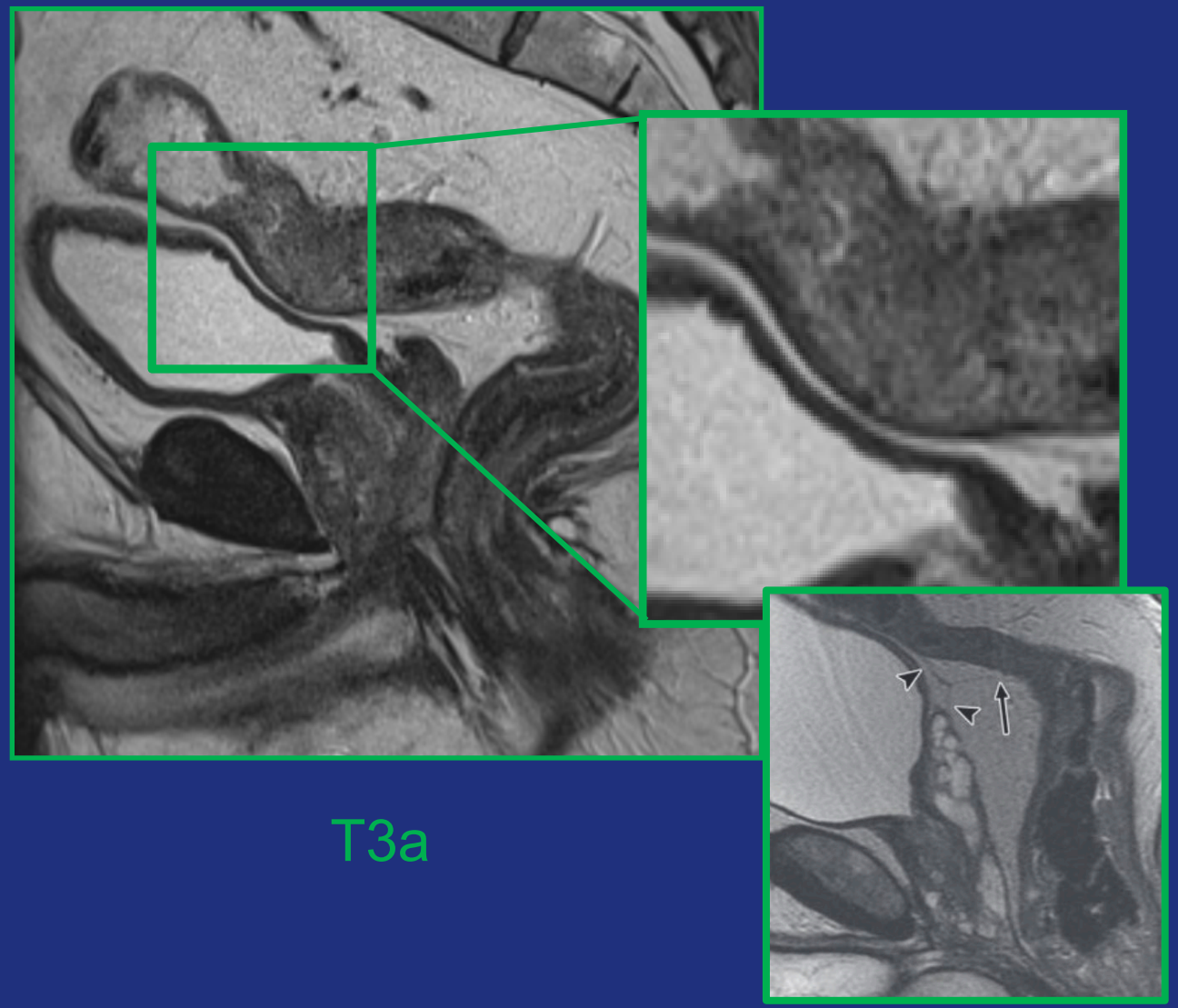




Let op → omslagplooi hecht aan rectum: contact ≠ invasie

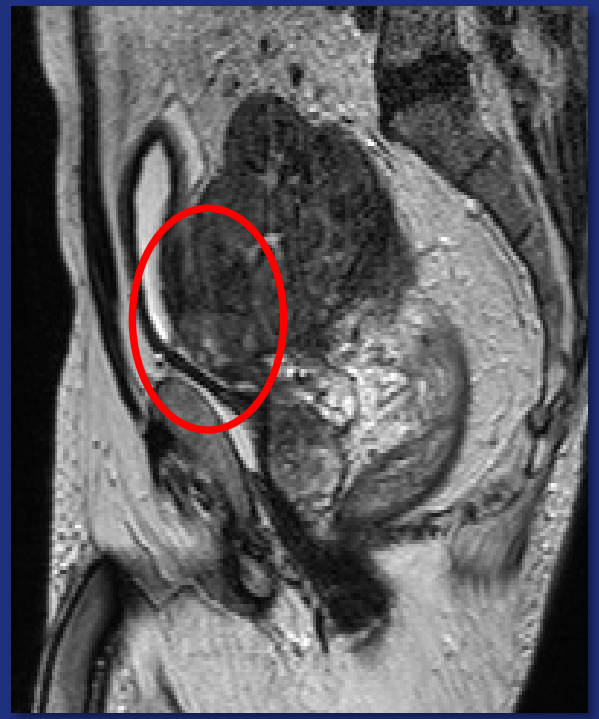


T4a

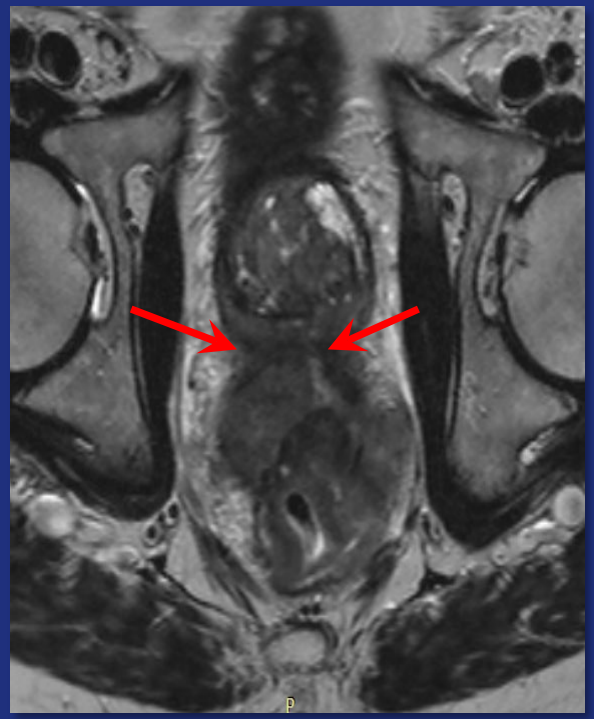


T3a

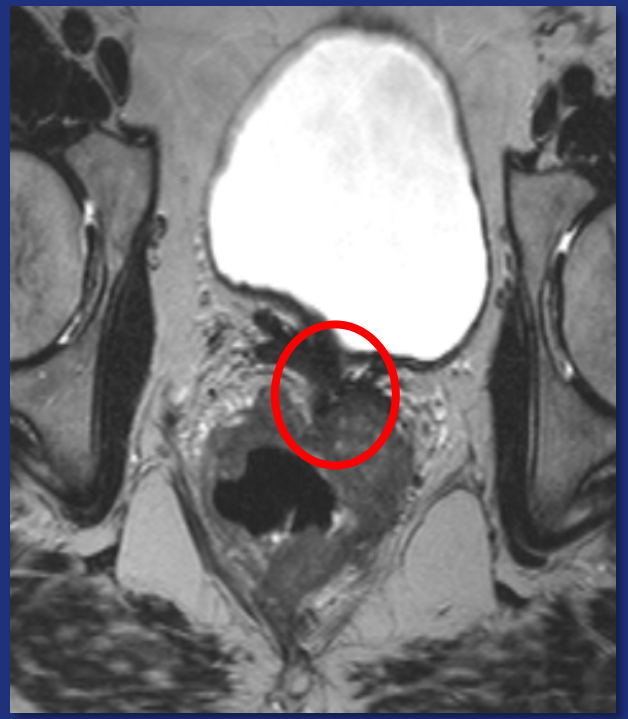
cT4b: invasie in structuren buiten mesorectum



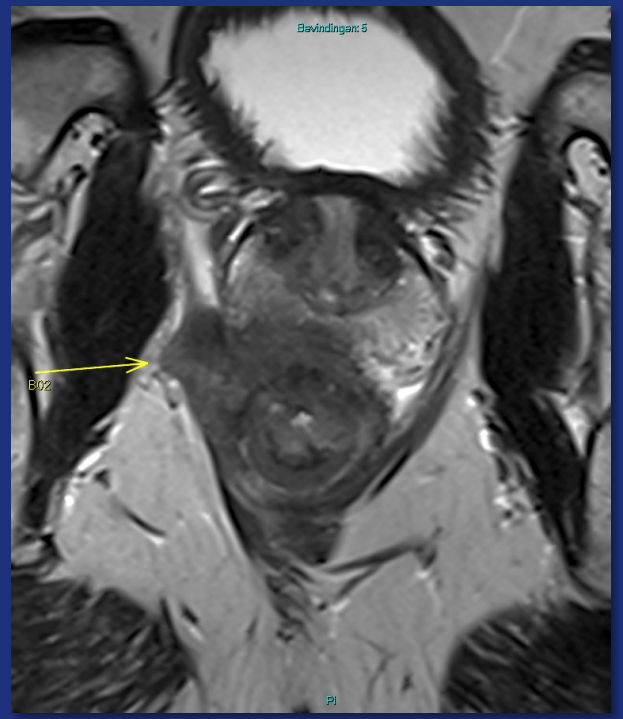
blaas



prostaat & vesikels

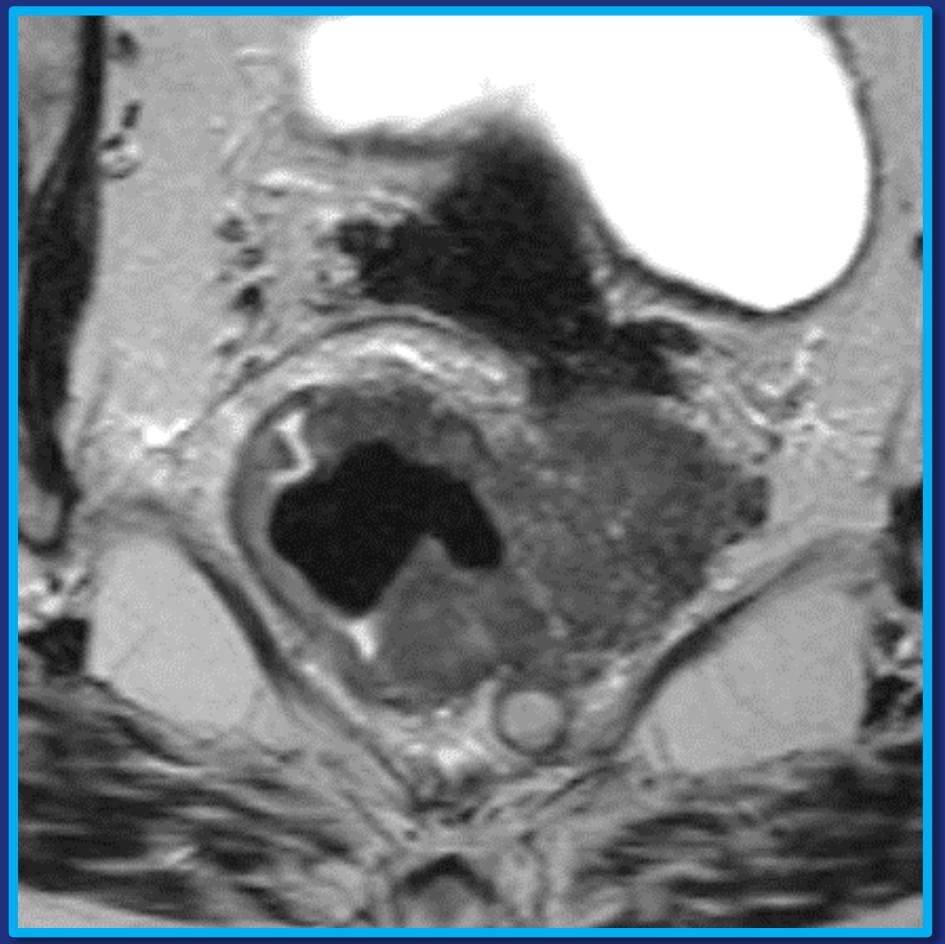


vagina

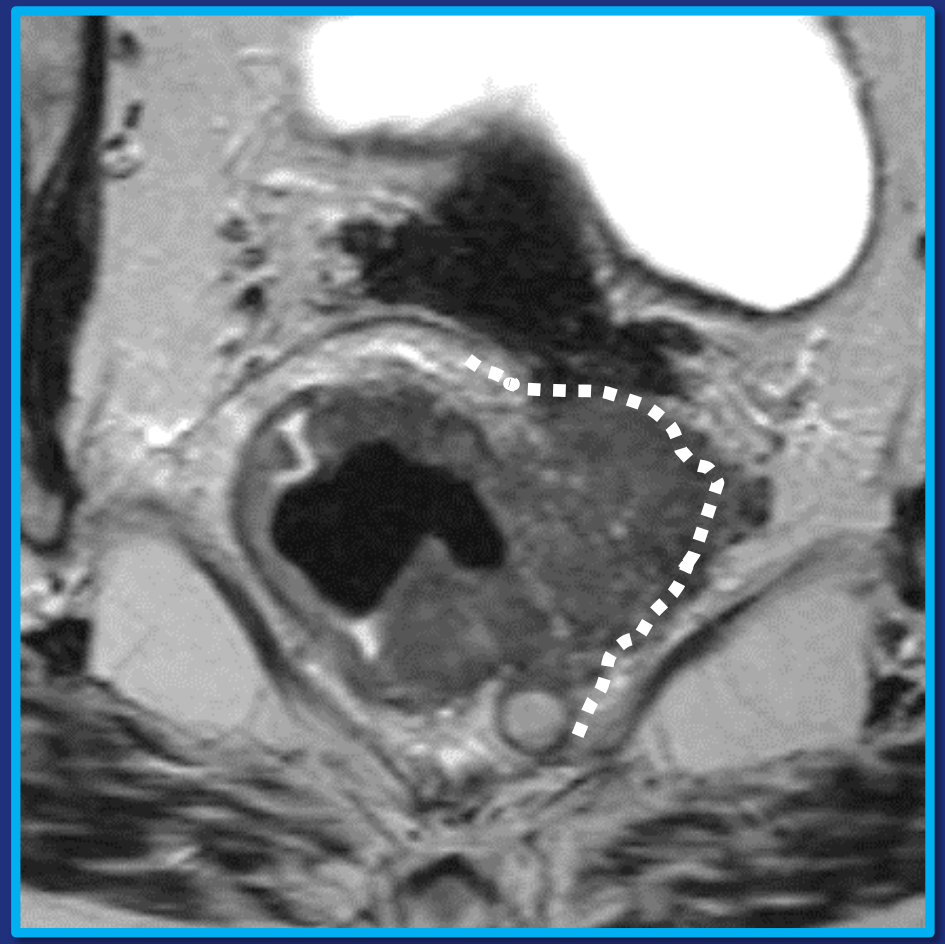


bekkenwand

Bekkenwand invasie: doorgroei *voorbij* de MRF



cT4b!

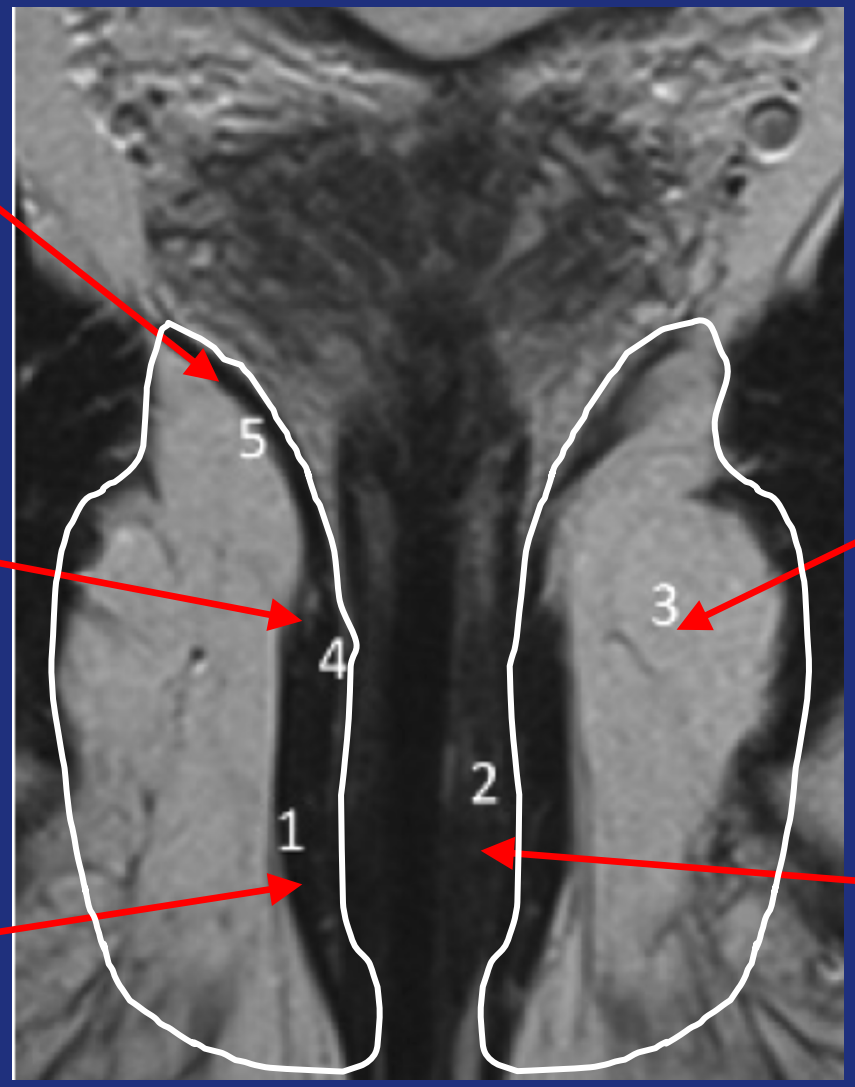


Consensus: externe sphincter en bekkenbodem invasie (of beyond) = cT4b

5: levator ani muscle

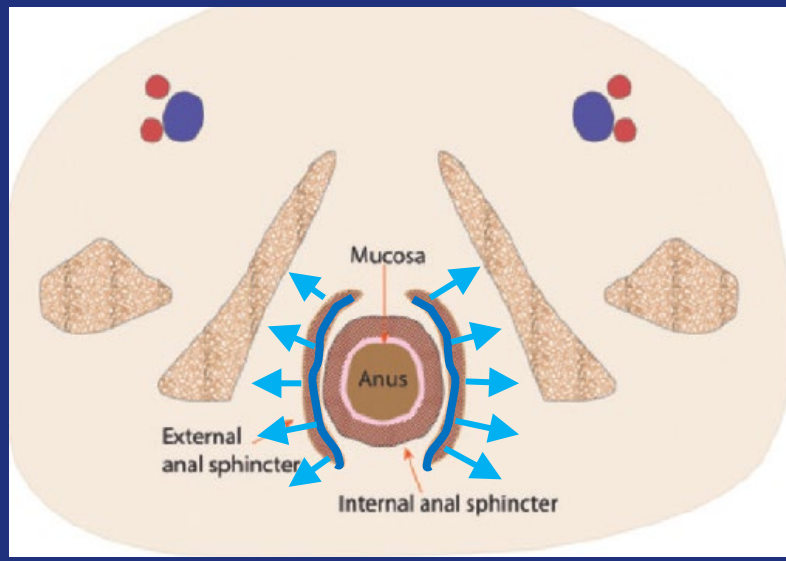
4: puborectal muscle

1: external sphincter



3: ischioanal fossa

2: internal sphincter



Lambregts et al. European Radiology 2022

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EMVI & TUMOR DEPOSITS

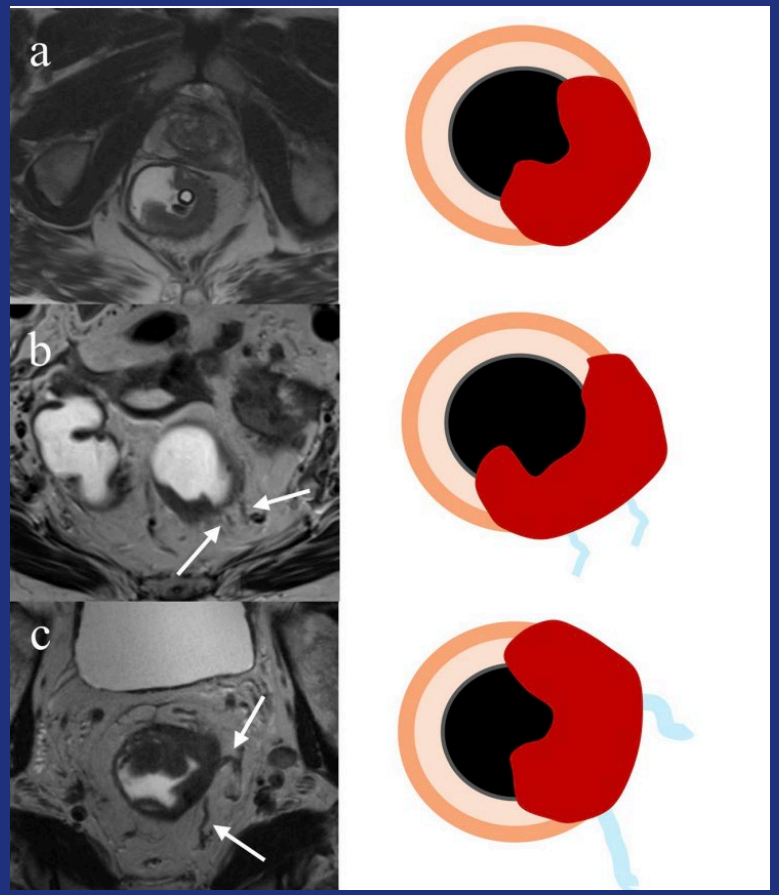
EMVI-

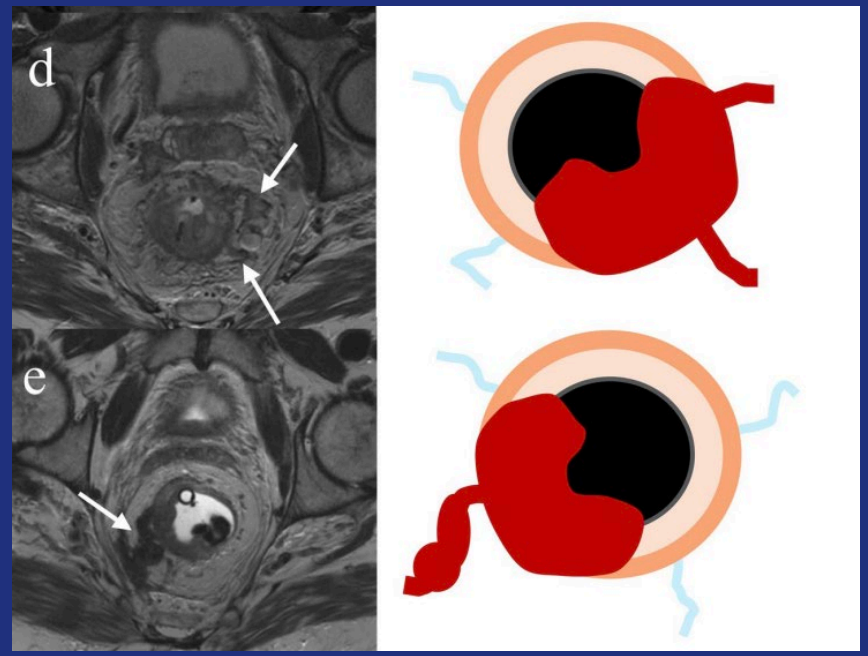
EMVI+

MRI Grade 0

MRI Grade 1

MRI Grade 2





MRI Grade 3

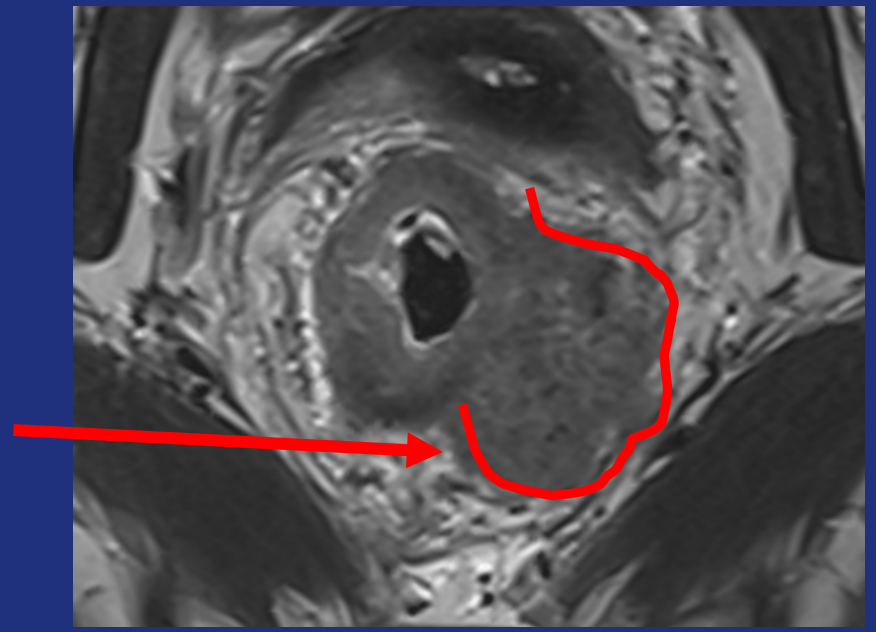
MRI Grade 4

Inoue et al. Insights Into Imaging 2021; Kim et al. AJR 2019

Hoe EMVI beoordelen?

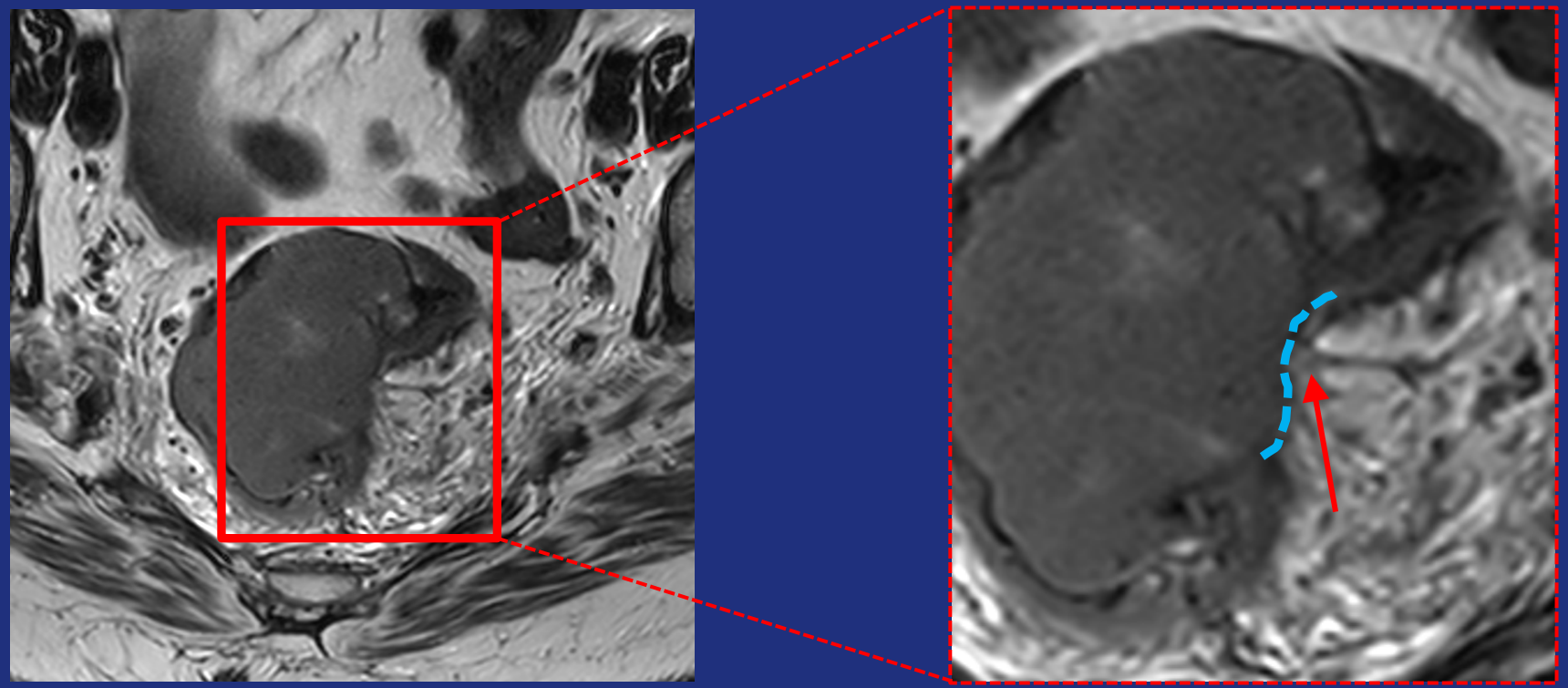
EMVI + (= grade 3 & 4) of EMVI- (= grade 0-1-2)

Let op overstaging!



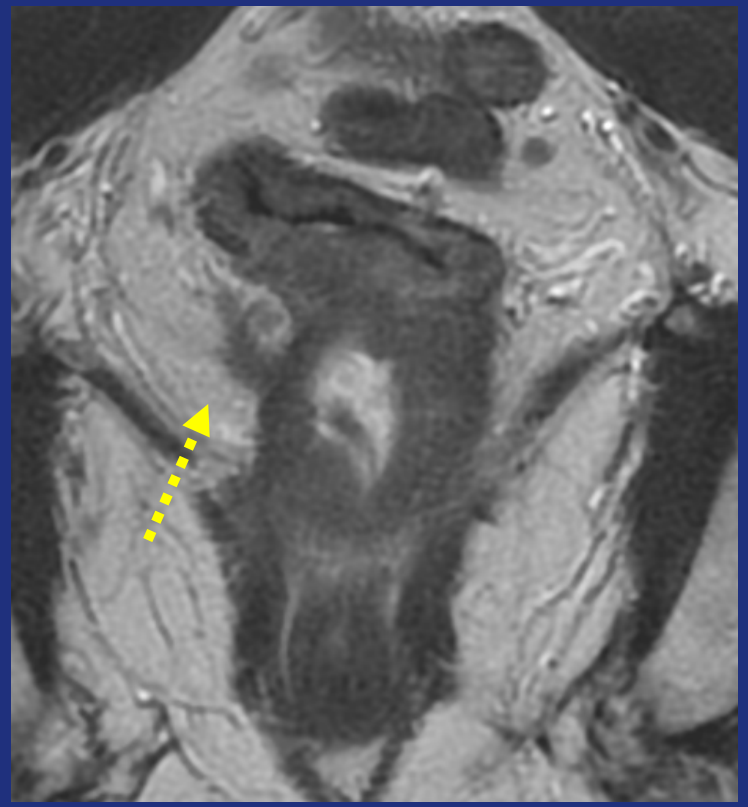
Bulky breedbasische uitbreiding = waarschijnlijk EMVI+

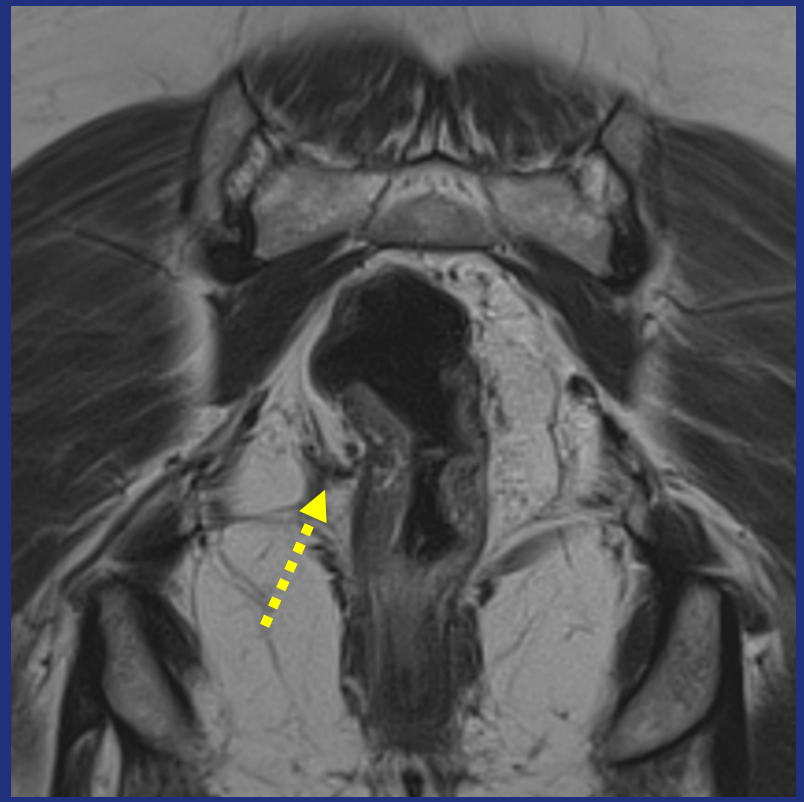
Vermijd overstaging!

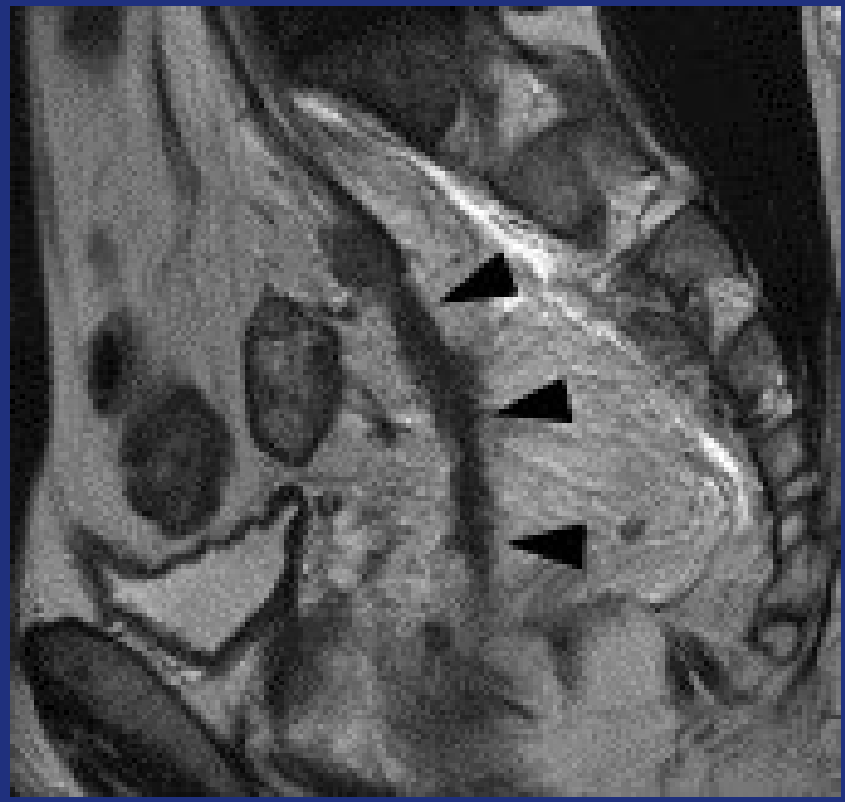


Een vat nabij een cT3 tumor ≠ EMVI: dit is graad 2

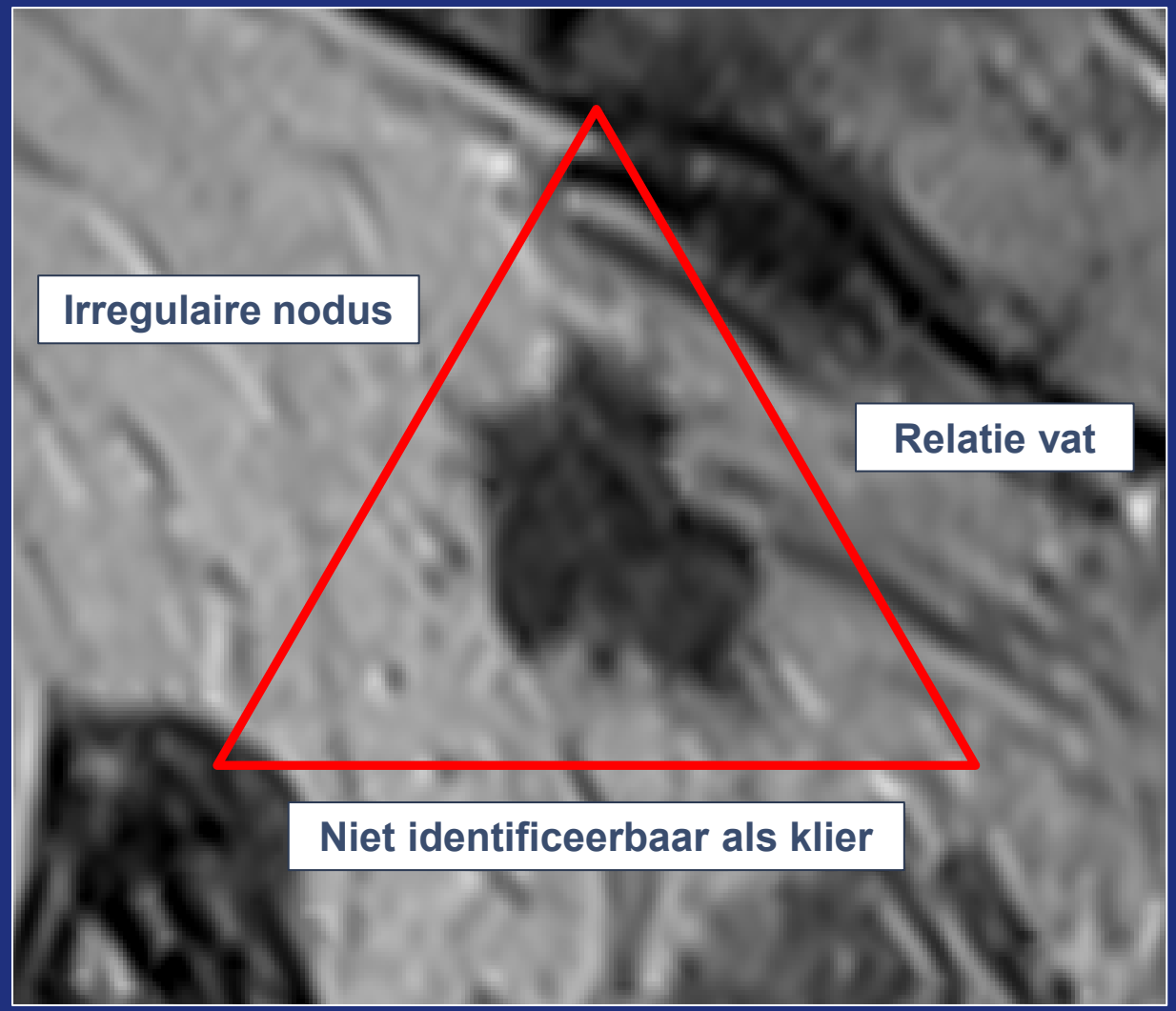
EMVI graad 3-4 – EMVI+







Tumor depositie(s): heel ongunstig, ongeacht origine



1. Apart rapporteren
2. Meetellen bij cN-stage

   (conform PA-TNM)

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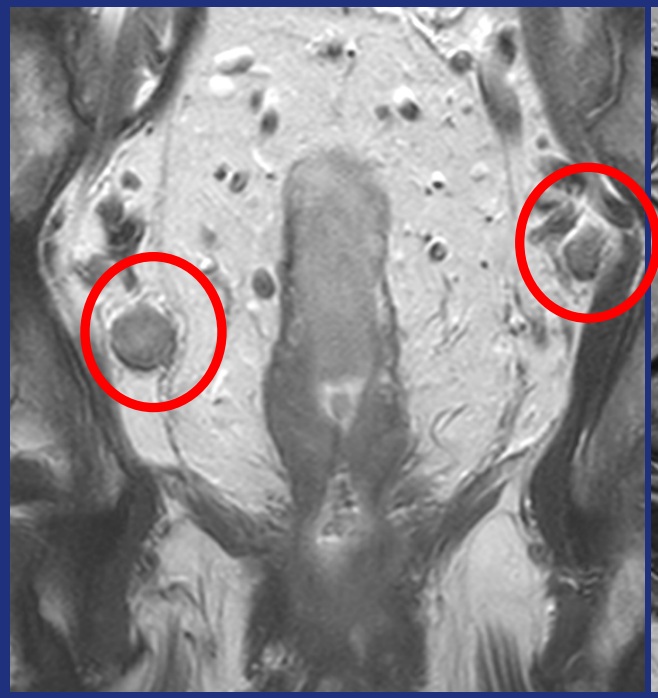
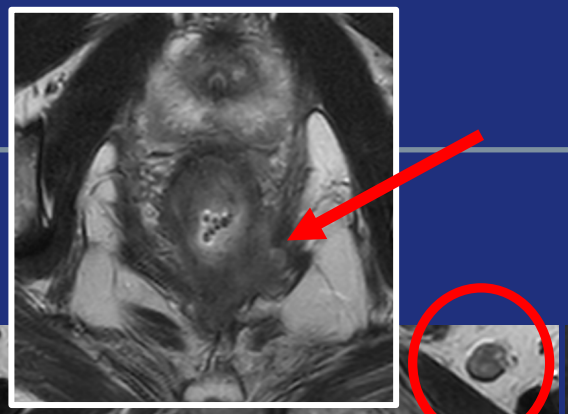
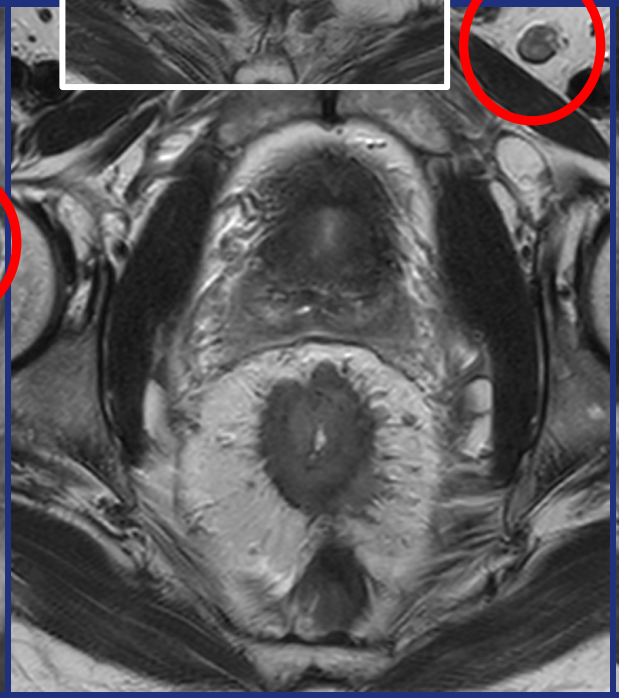
KLIERPATHOLOGIE

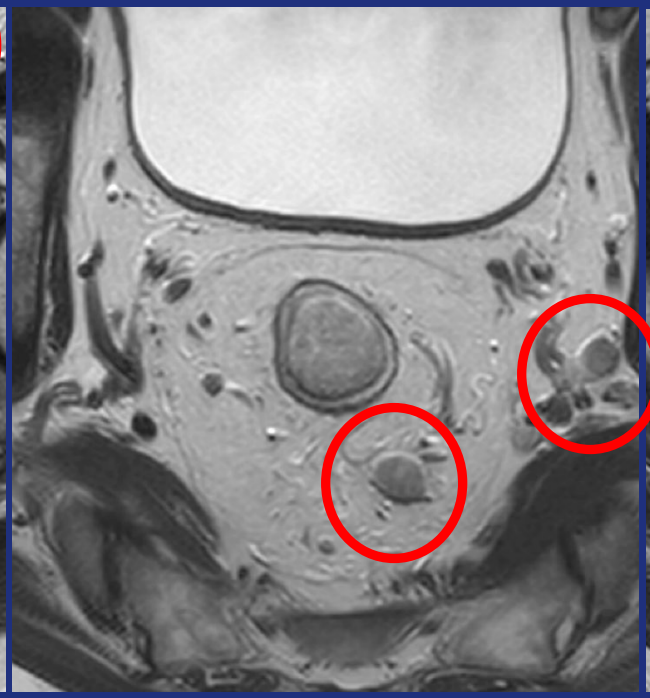


Lateraal beiderzijds

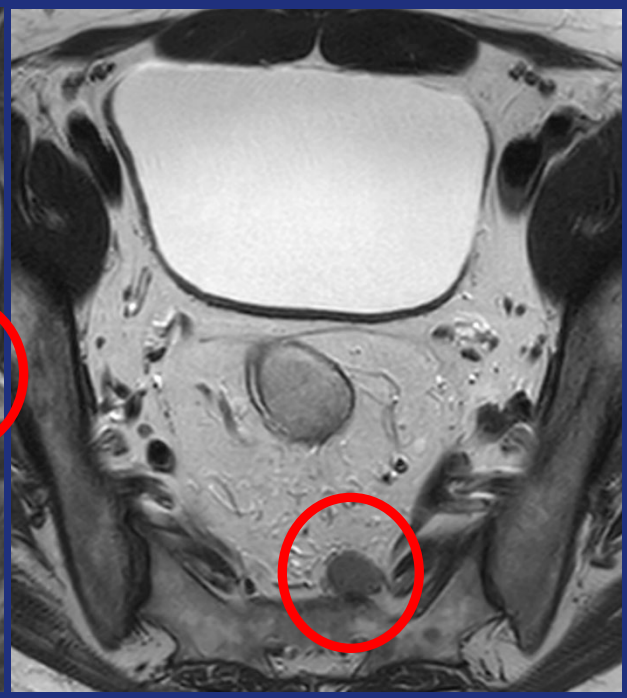




Inguinaal?

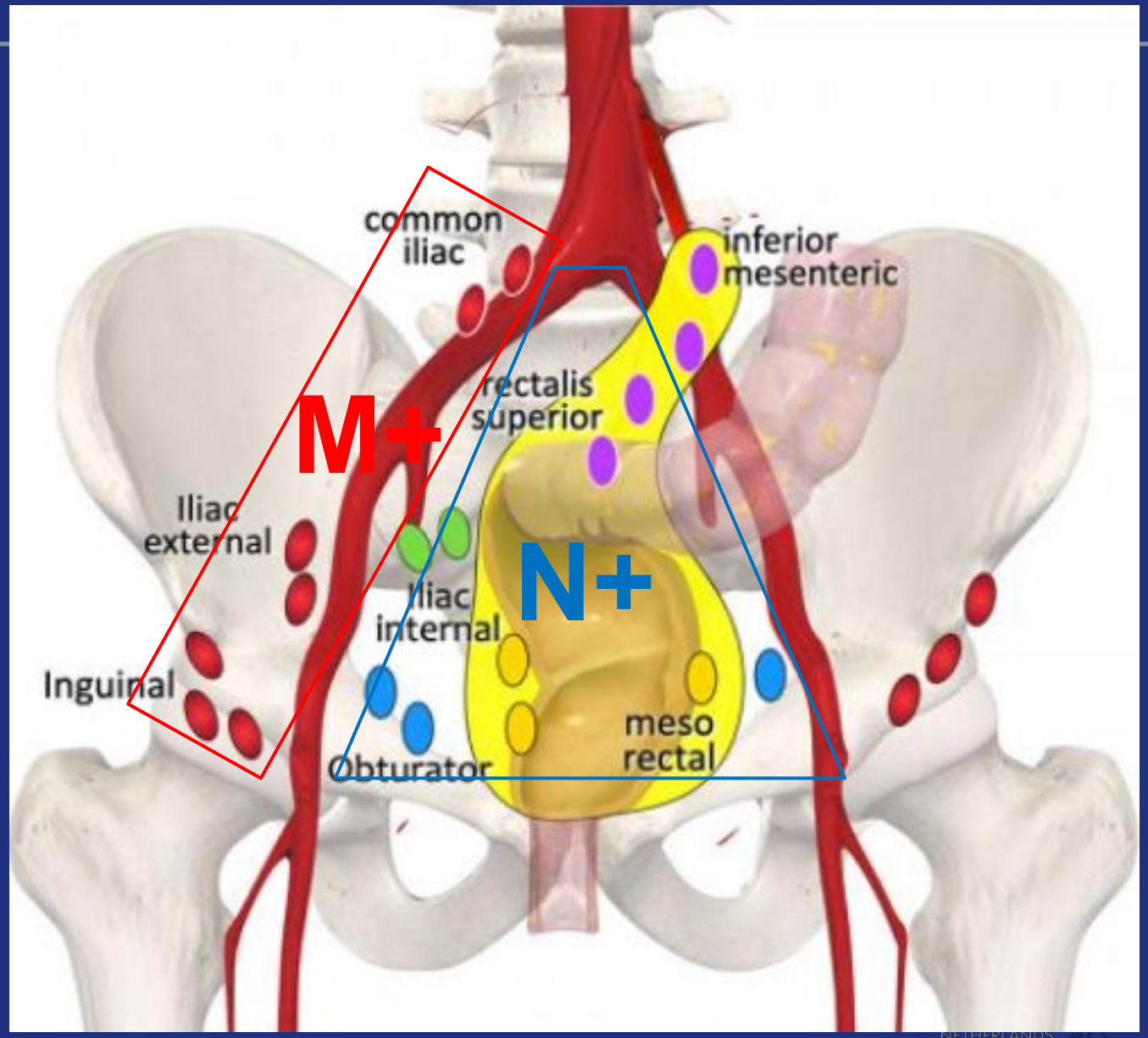


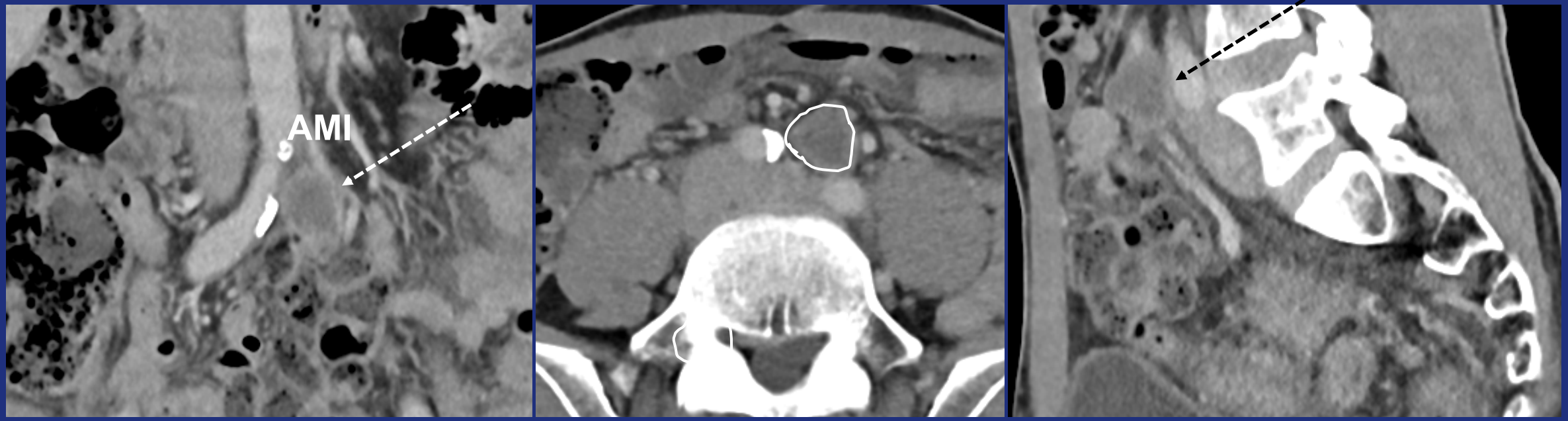
Mesorectaal



Presacraal
(buiten MRF)

LET OP:
Bij invasie anus of bekkenbodem:
liesklieren N+ en NIET M+



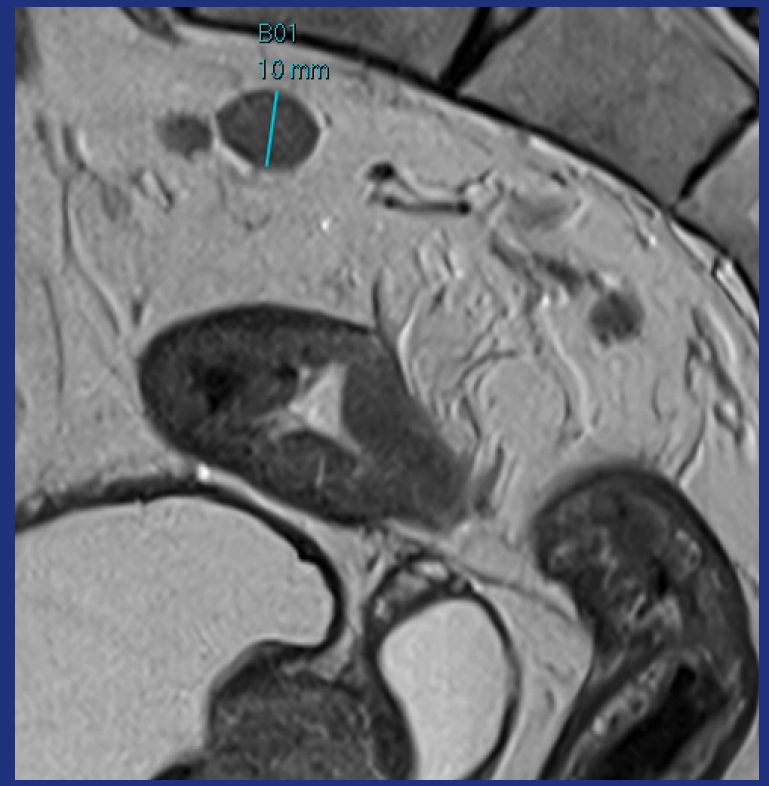


! Dit is N+, niet M1 !

Praktische aanpak klierstadiering

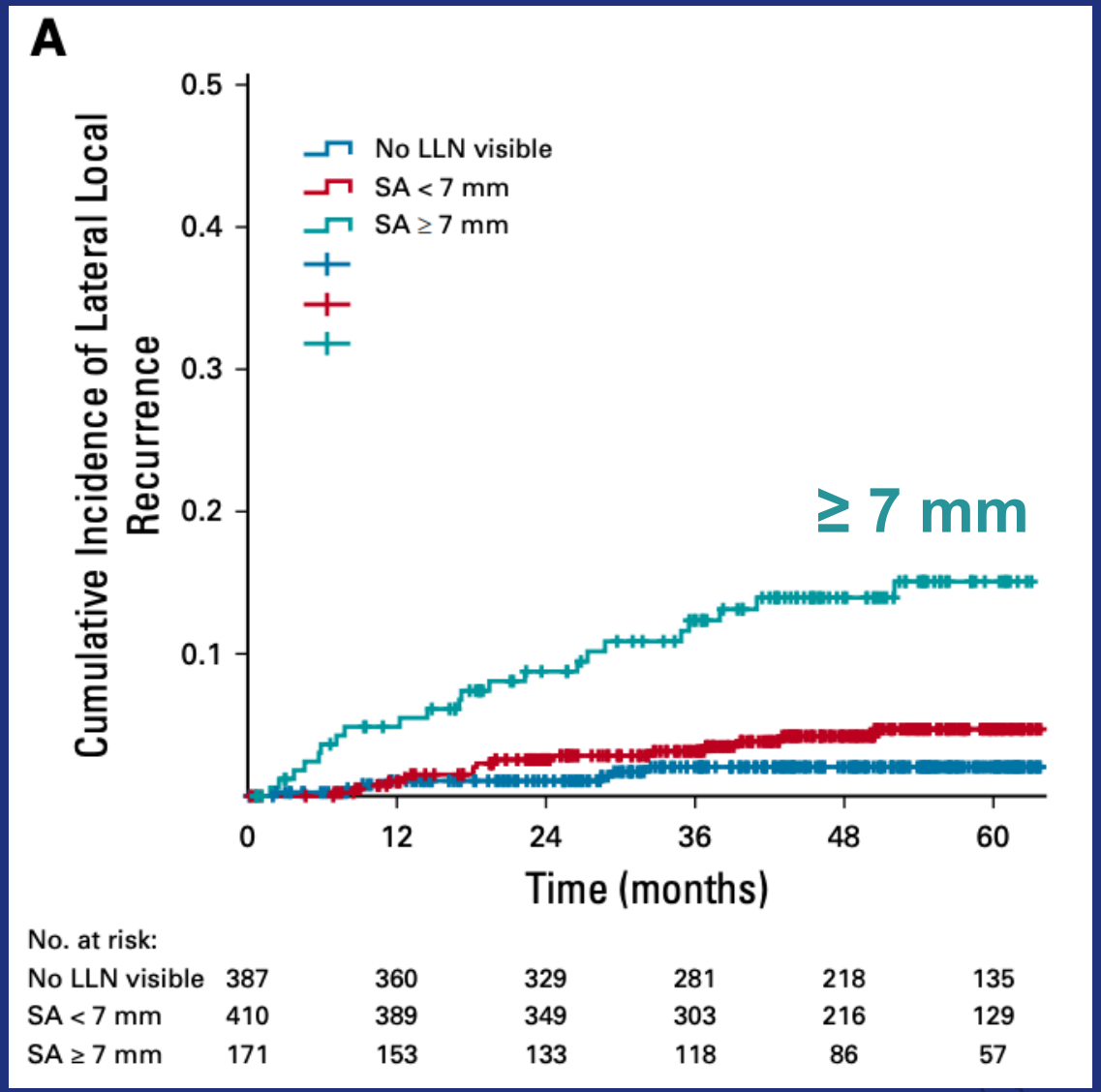
- **EMVI & tumor deposities prognostisch meer van waarde**

- **Risk adapted staging:**
  - Neem de overige risicofactoren mee
  - Bewustzijn van overstaging
  - Stadieer cN0 vs cN+ (geef aan hoe zeker je bent)
  - Focus op ‘obvious’ N+ klieren
  - Mucineus = **ALTIJD** maligne
  - Benoem hoogste verdachte klier

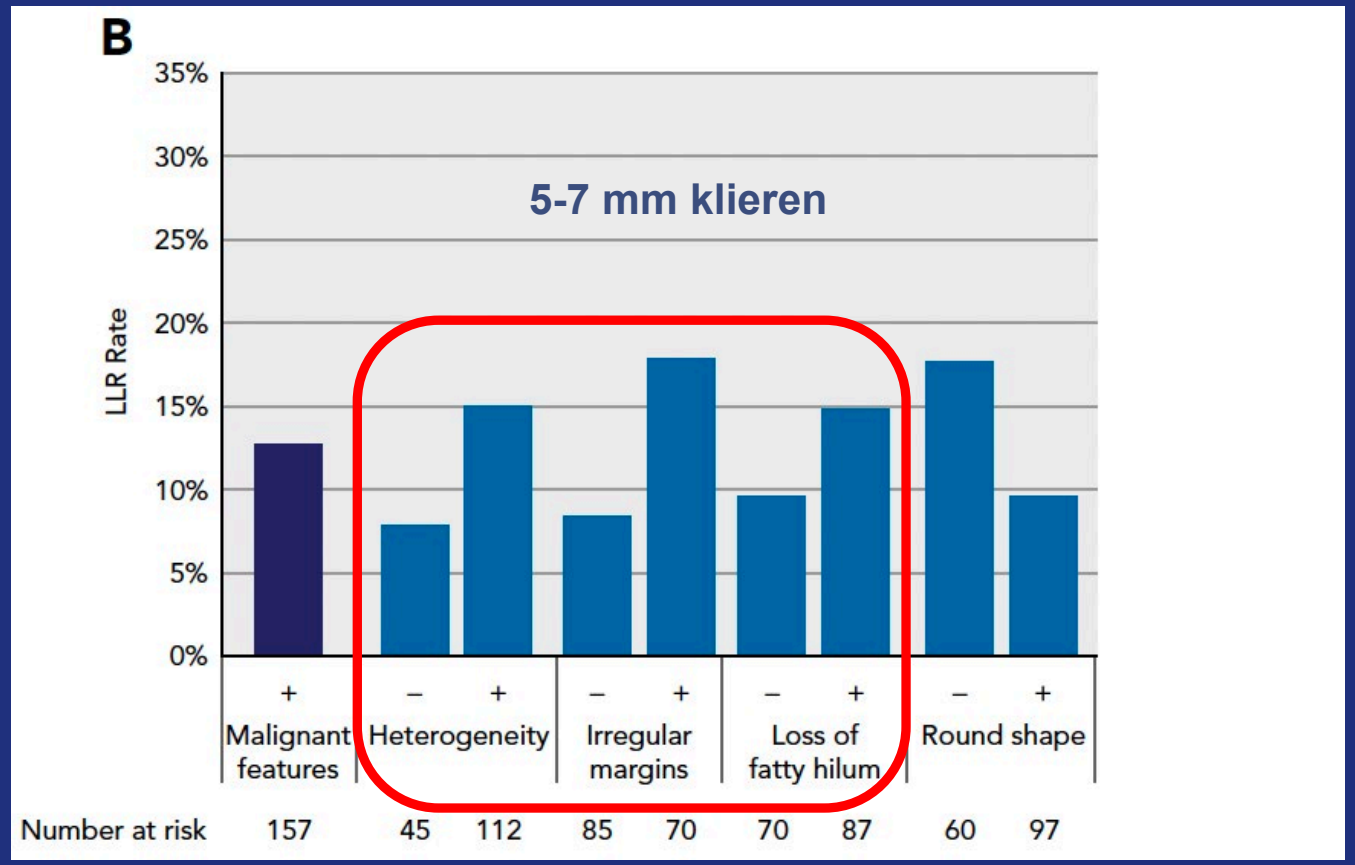


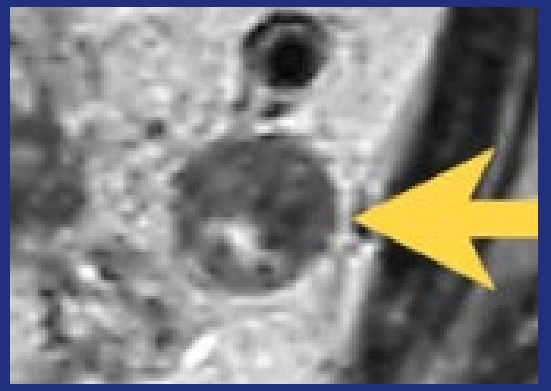
Lateraal (= iliaca interna en obturatorloge)

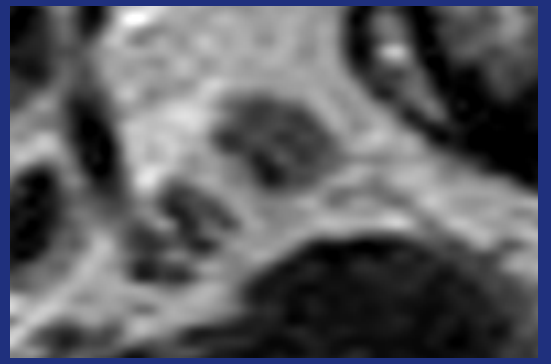
- **Primary staging**
  - Korte as: ≥ 7 mm
  - Benoem locatie
- **4 – 6 mm na CRT**



Ogura et al. JCO 2018







LET OP: morfologie en asymmetrie

Kawai et al. ANZ J Surg 2022; van Geffen et al. EJSO 2024

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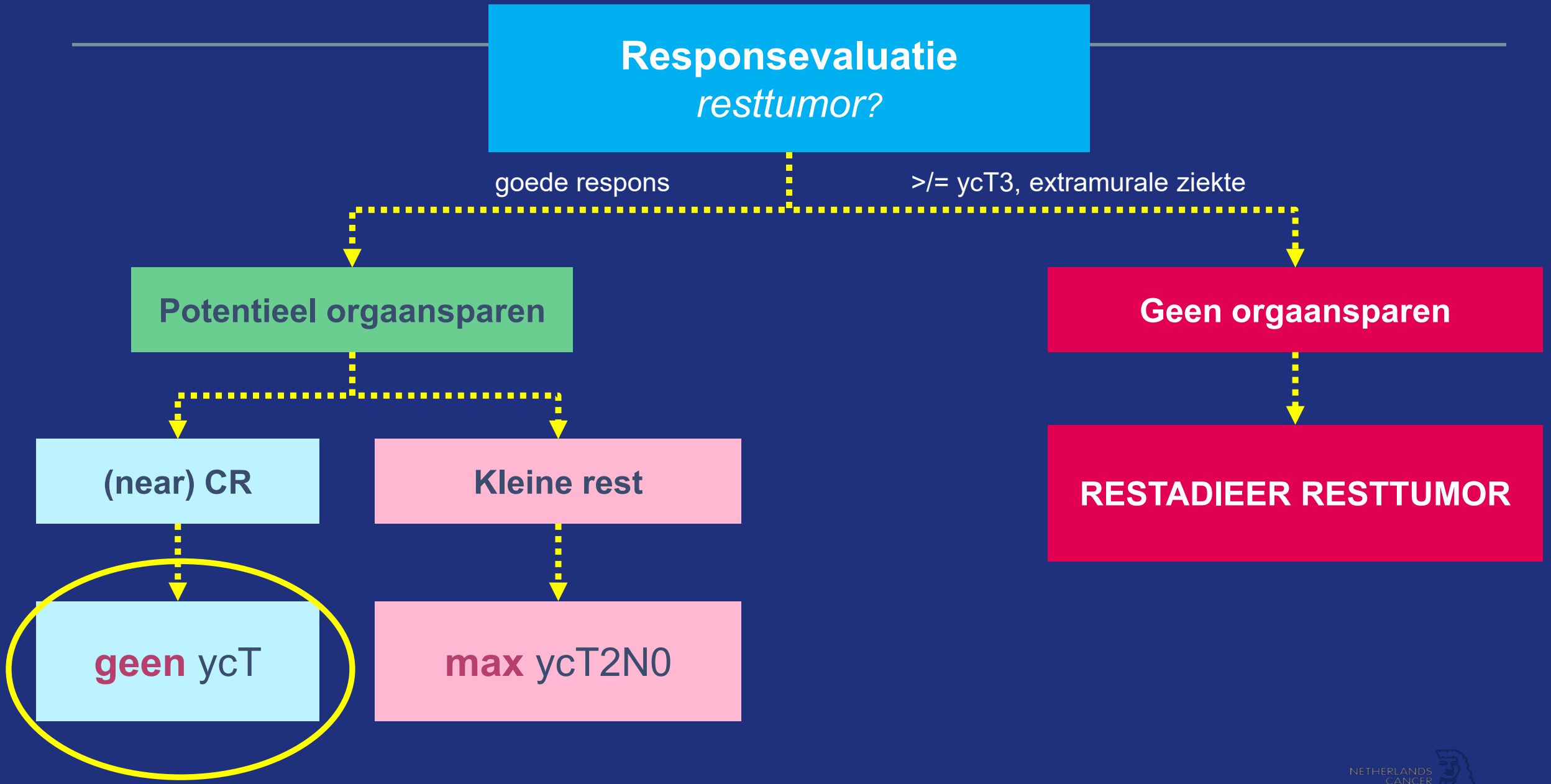
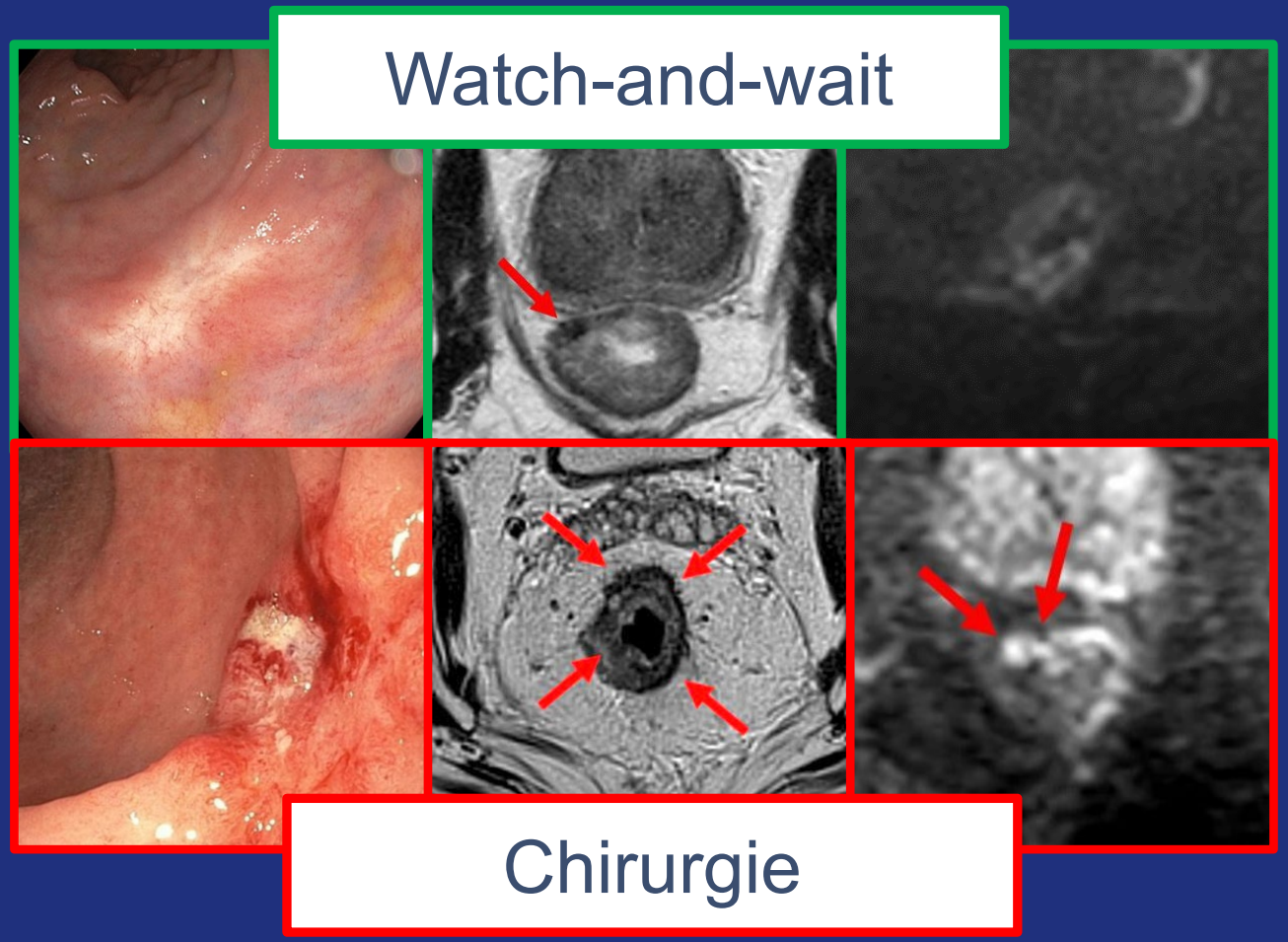
RESTAGING

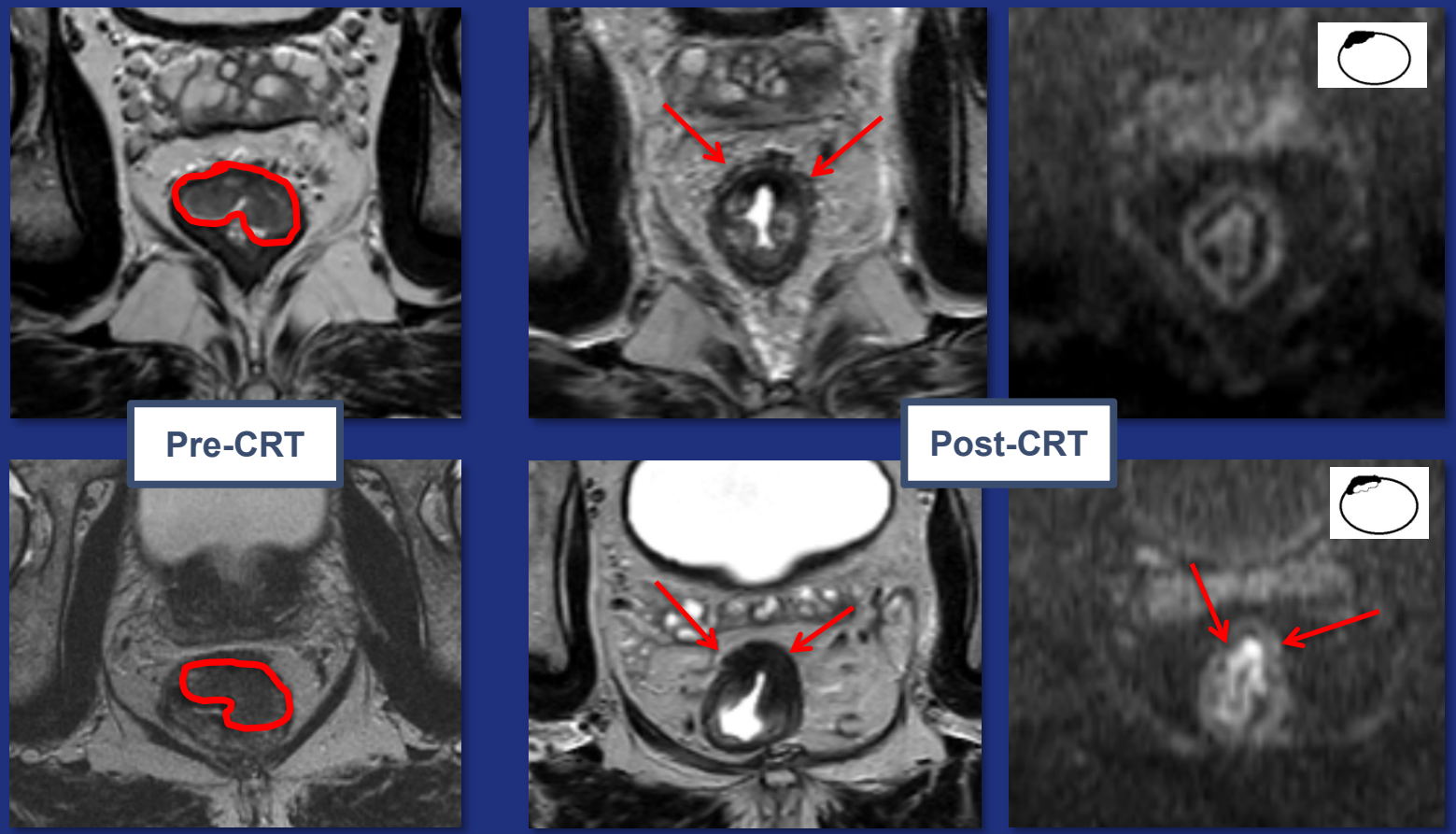

Responsevaluatie
resttumor?
goede respons
>/= ycT3, extramurale ziekte
Potentieel orgaansparen
Geen orgaansparen
(near) CR
Kleine rest
RESTADIEER RESTTUMOR
geen ycT
max ycT2N0



Complete respons:
Minimale fibrose, geen DWI, wit litteken

Slechte respons:
Duidelijke restmassa

Haak et al. Ann Surg Oncol 2020

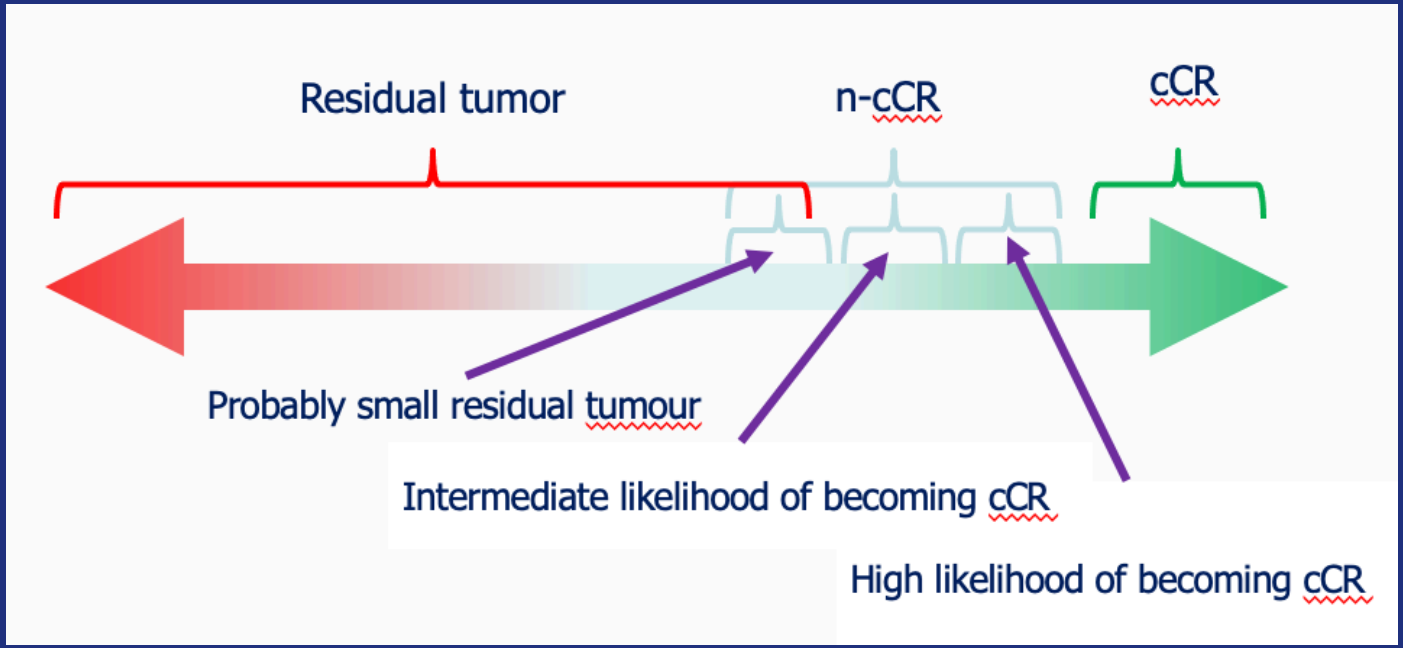


Near CR: pragmatische aanpak bij gebrek aan evidence

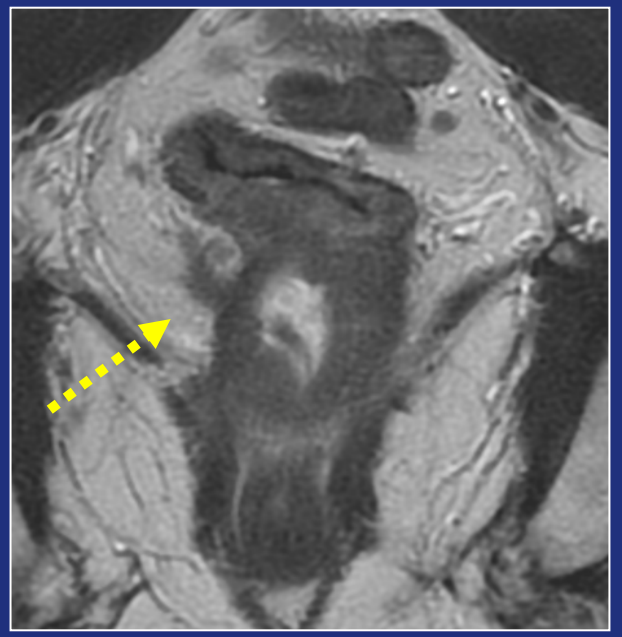
- Near cCR: goede respons, maar niet compleet
- Kans op ontstaan van cCR inschatten op MDO
- Dynamisch concept: maximaal 6 maanden

cCR

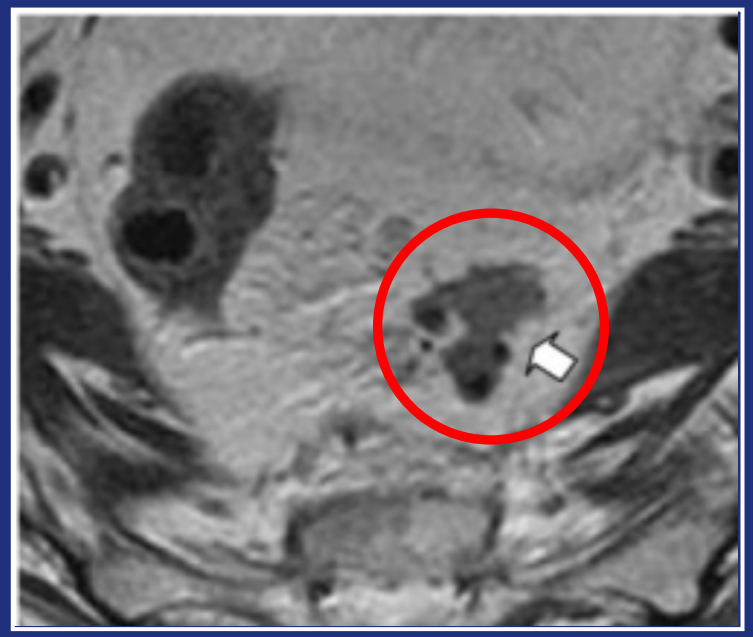
iCR



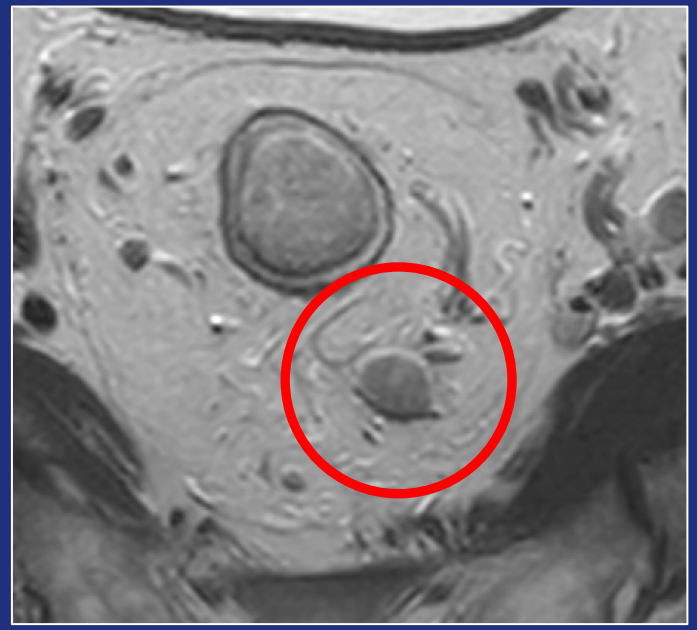
MRI draagt vooral bij voor de beoordeling van extraluminaal



yEMVI



Tumor deposities



yN+

Pragmatische aanpak extramurale bevindingen na CRT

Mesorectale klieren: neem luminale respons mee

- Benoem opvallend pathologische klieren
- <5 mm = in principe cN0 (tenzij mucineus)

Laterale klieren

- Geen cut-off - common sense
- Beschrijf afname

yMRF, yEMVI en yTD

- Lastig - DWI weinig behulpzaam

Test of time!!!

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TAKE HOME MESSAGES

Take home messages: primaire stadiëring

- Sigmoid take-off en tweedeling rectum
- MRF: 1 mm cut-off + betrokkenheid andere structuren
- EMVI: graad 3-4 = EMVI+ / risico op overstaging
- Tumor deposities: apart benoemen en meetellen met cN-stage
- Klieren
  - cN0 vs. cN+ (geef mate van zekerheid)
  - <5 mm = benigne
  - mucineus = maligne

Maak een gestructureerd verslag!

!

Take home messages: restadiëring

- Geef een conclusie over de mate van respons:
  - (near)CR
  - kleine resttumor
  - grote resttumor
- Geef geen ycT bij (near) CR
- Extramurale restafwijkingen
  - Weinig evidence voor de beoordeling
  - Test of time

Maak een gestructureerd verslag!

!

Screenshot slide!

Primaire tumor

- Tweedeling rectum
- Sigmoid take-off
- MRF
  - 1 mm
  - EMVI/TD/irregulaire klier = MRF+
- cT4b: let op sphincter en bekkenzijwand

Extramuraal

- Klieren: cN0 vs. cN+
- Tumor deposits
  - meetellen in cN-stage
  - separaat benoemen
- EMVI: graad 3-4
- Laterale klieren: 7 mm

Restaging

- Responscategorie
- Klieren: overstaging!
- EMVI+TD: lastig
- Test of time!
- Geen ycT bij (near) CR

DANK! VRAGEN?

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