



EUS u incontinence

Zveřejnění info o spřízněných stranách

Bez

Diagnostika fekální inkontinence

- 1. Anamnéza
- 2. Fyzikální vyšetření
- 3. Zobrazovací metody
 - EUS
 - Defekografie
- 4. Funkční testy
 - Anorektální manometrie a senzorické testy
 - Elektromyografie
 - Terminální motorická latence n.pudendalis

Co způsobuje fekální inkontinenci

- 1. Porodní trauma, dysfunkcie pánevního dna**
- 2. Poškození svalů análního svěrače**
- 3. Klesající síla, sarkopenie (věk)**
- 4. Poškození nervy**
- 5. Změny v konečníku
(nádor, zánět, píštěl)**

Co způsobuje fekální inkontinenci

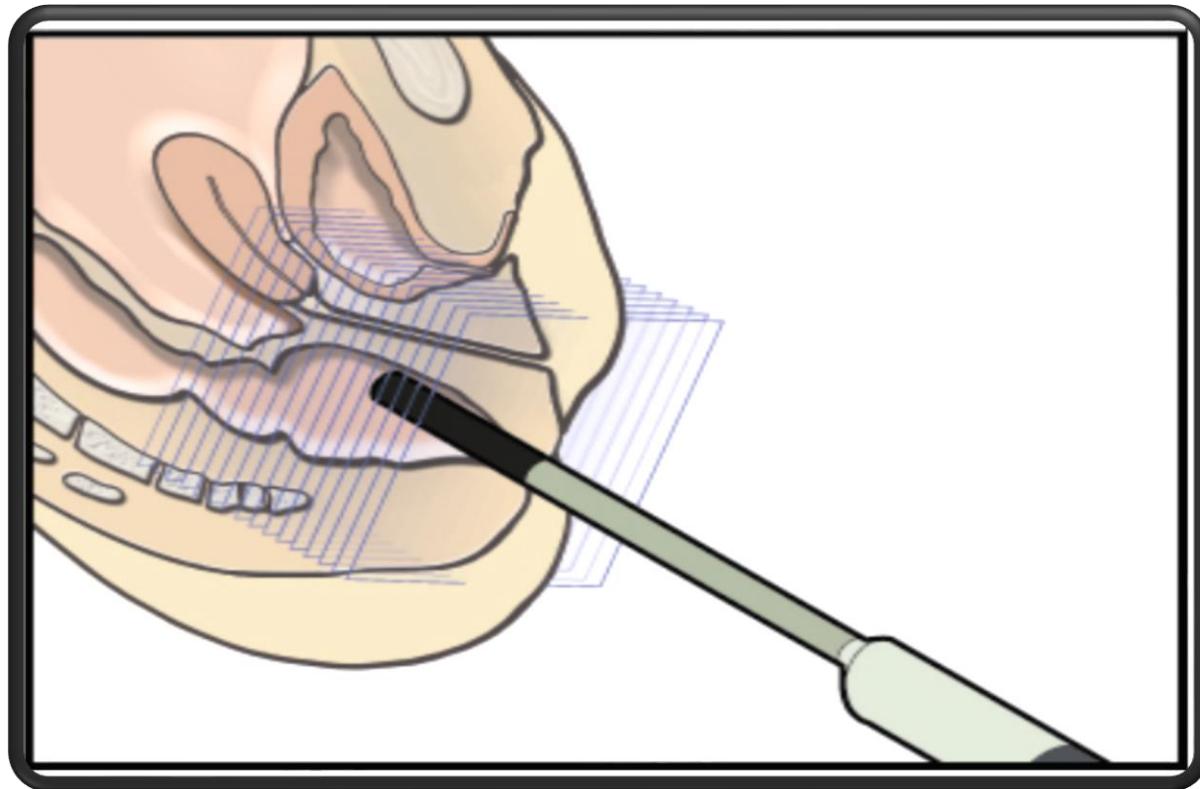
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Porodní trauma

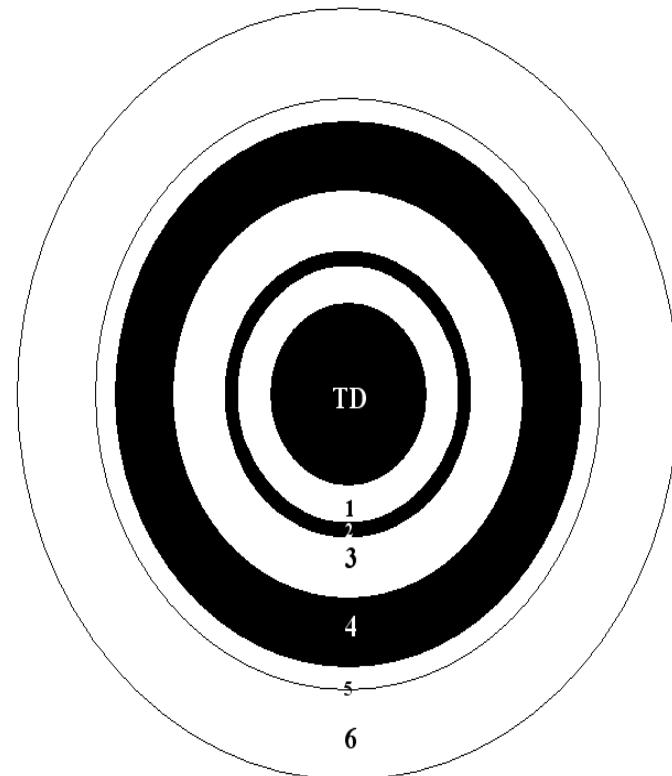


transanální přístup

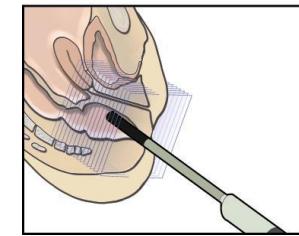
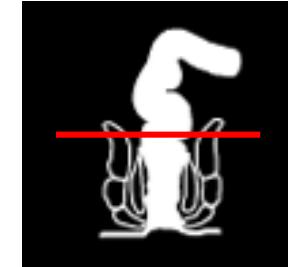
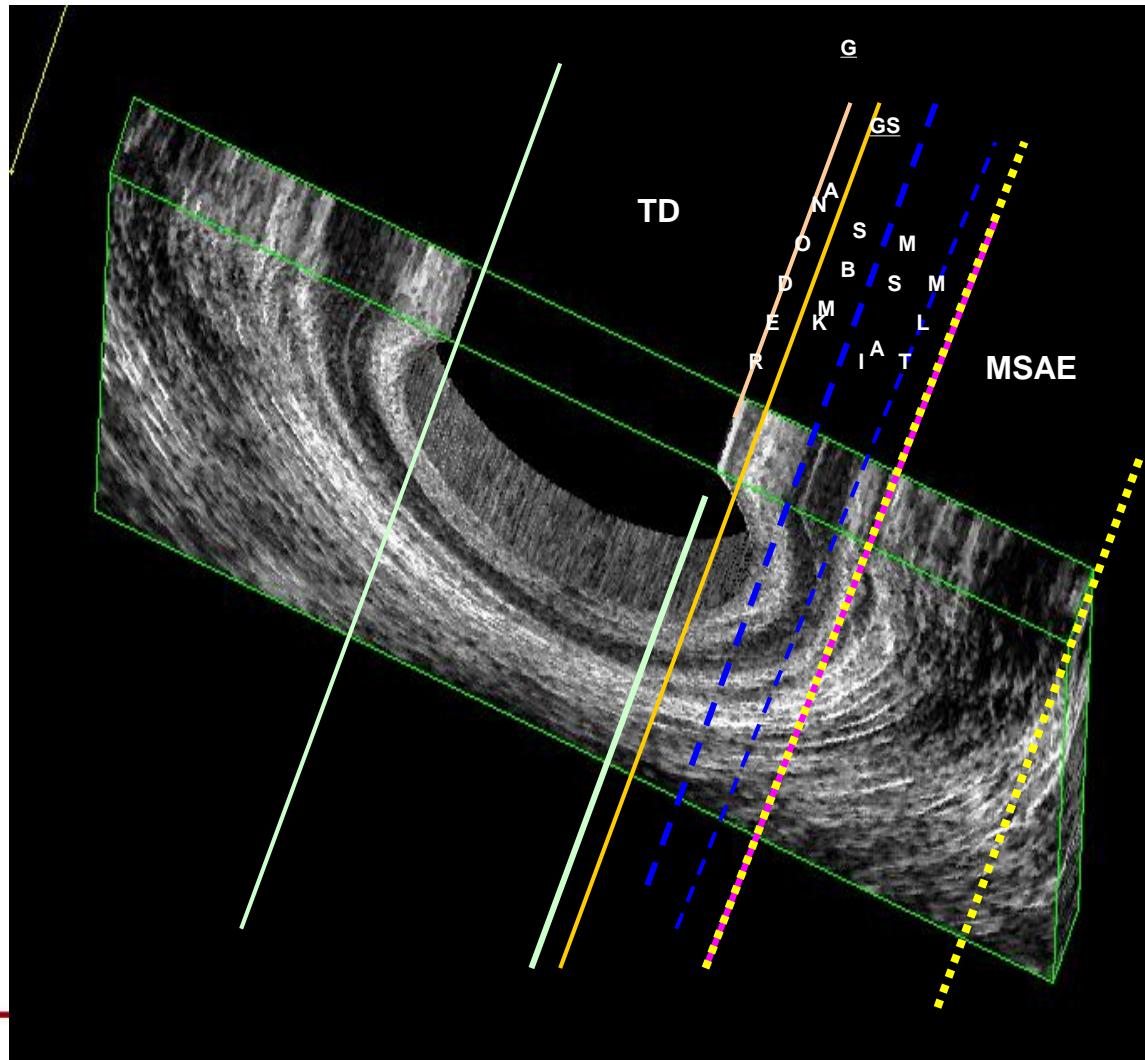


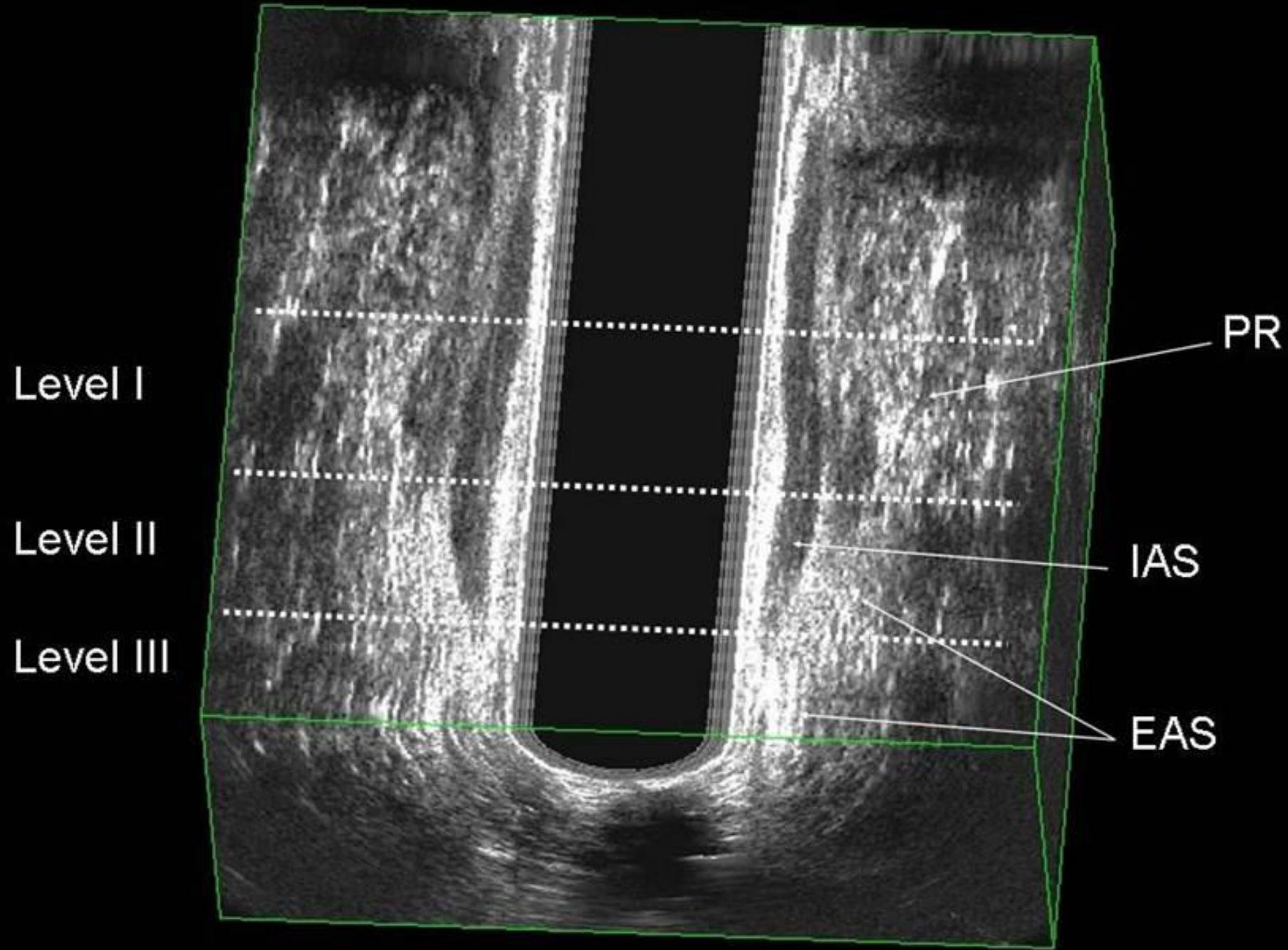
Anal Endosonographic Layers

1. Lumen Interface –hyperechoic
2. Anoderm –hypoechoic
3. Interface Mucosa -
hyperechoic
4. MSAI – hypoechoic
5. MLT – hyperechoic
6. MSAE - hypoechoic

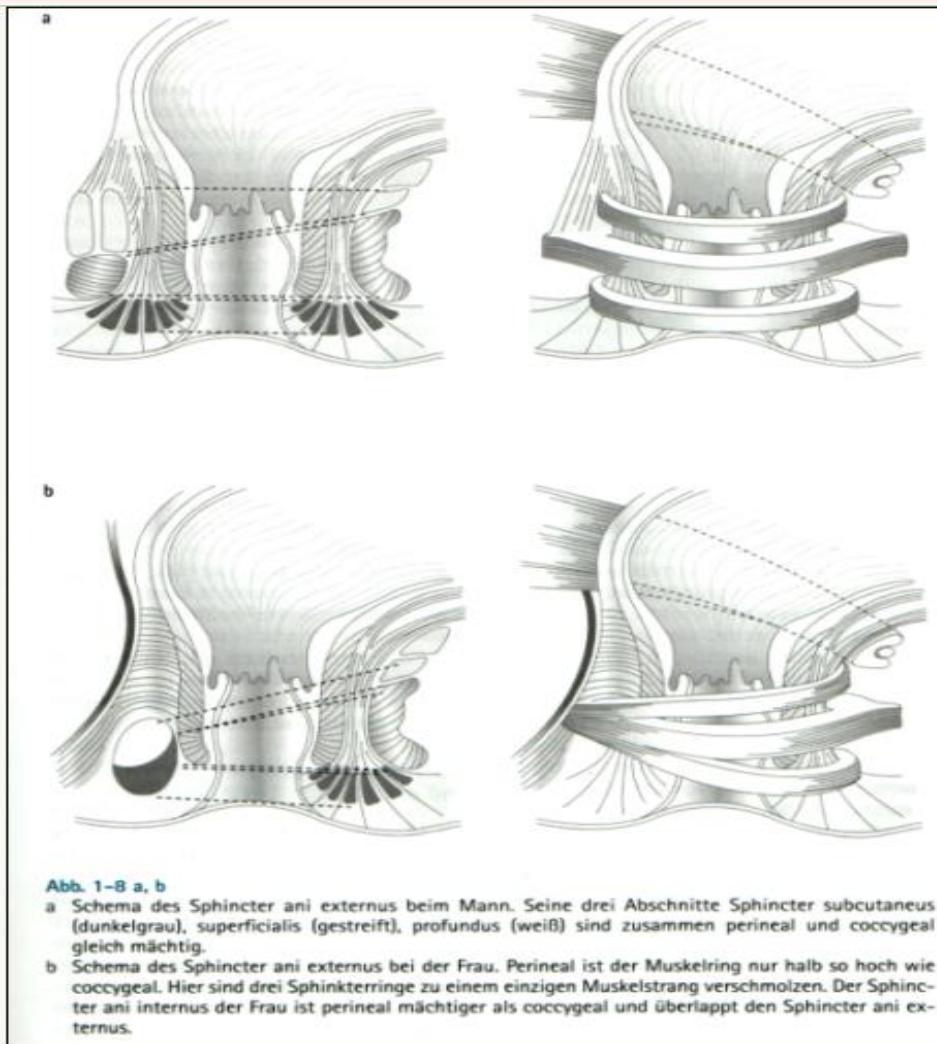


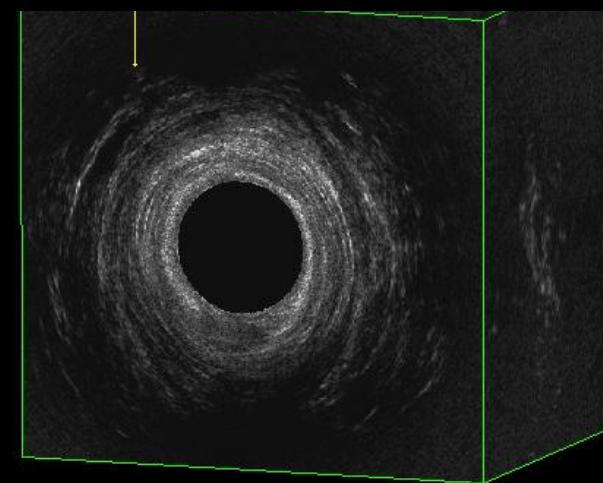
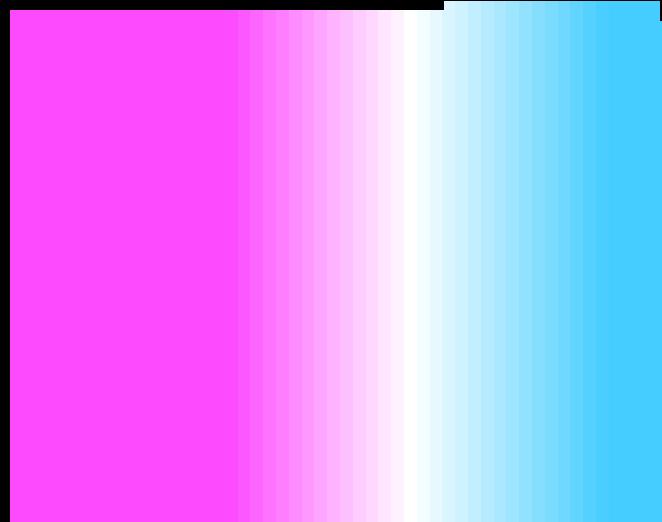
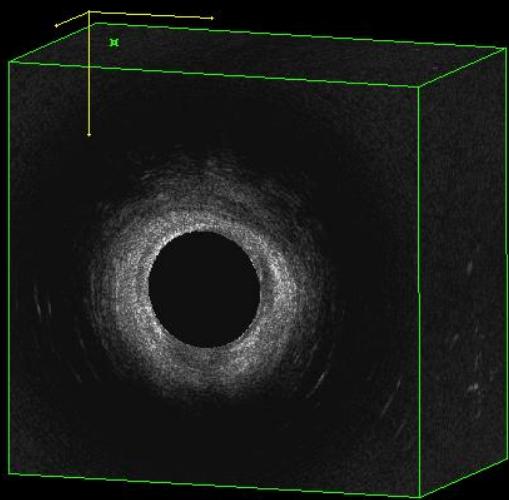
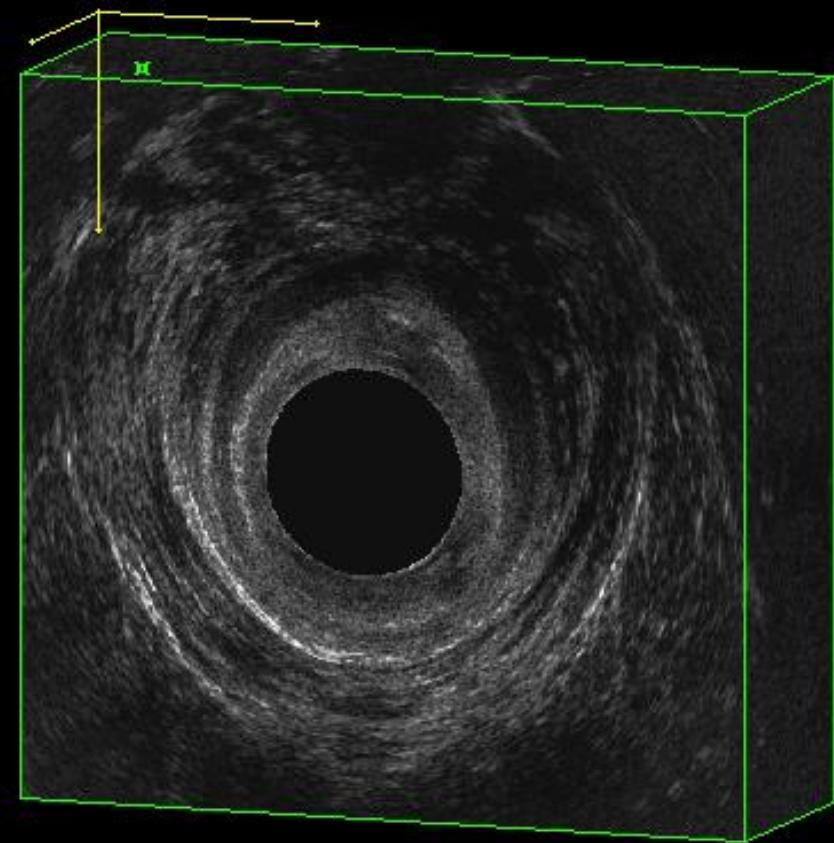
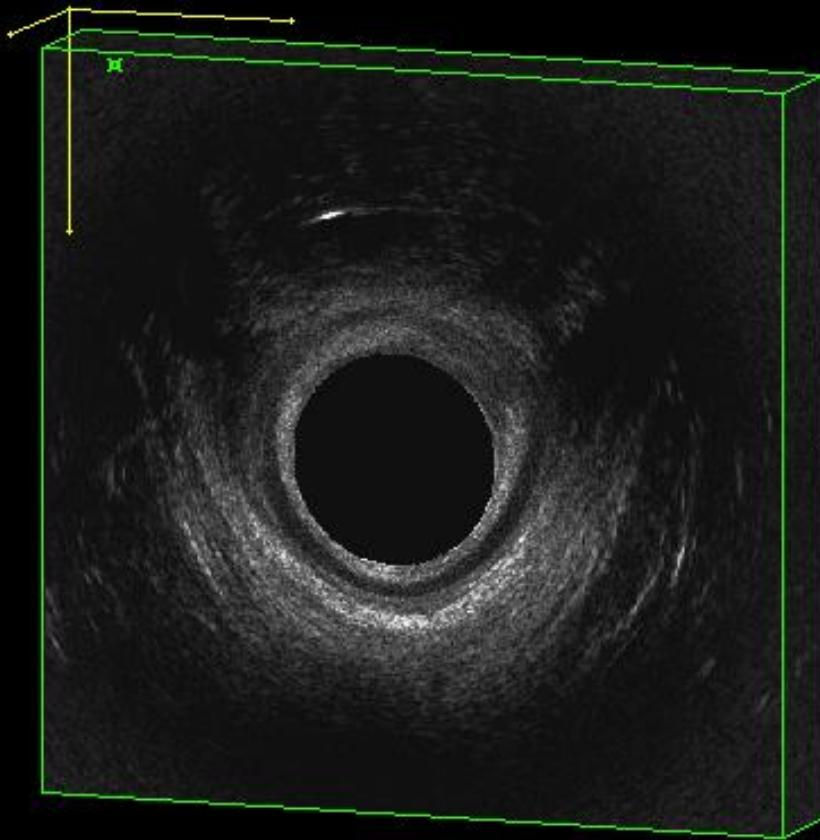
Normální anatomie

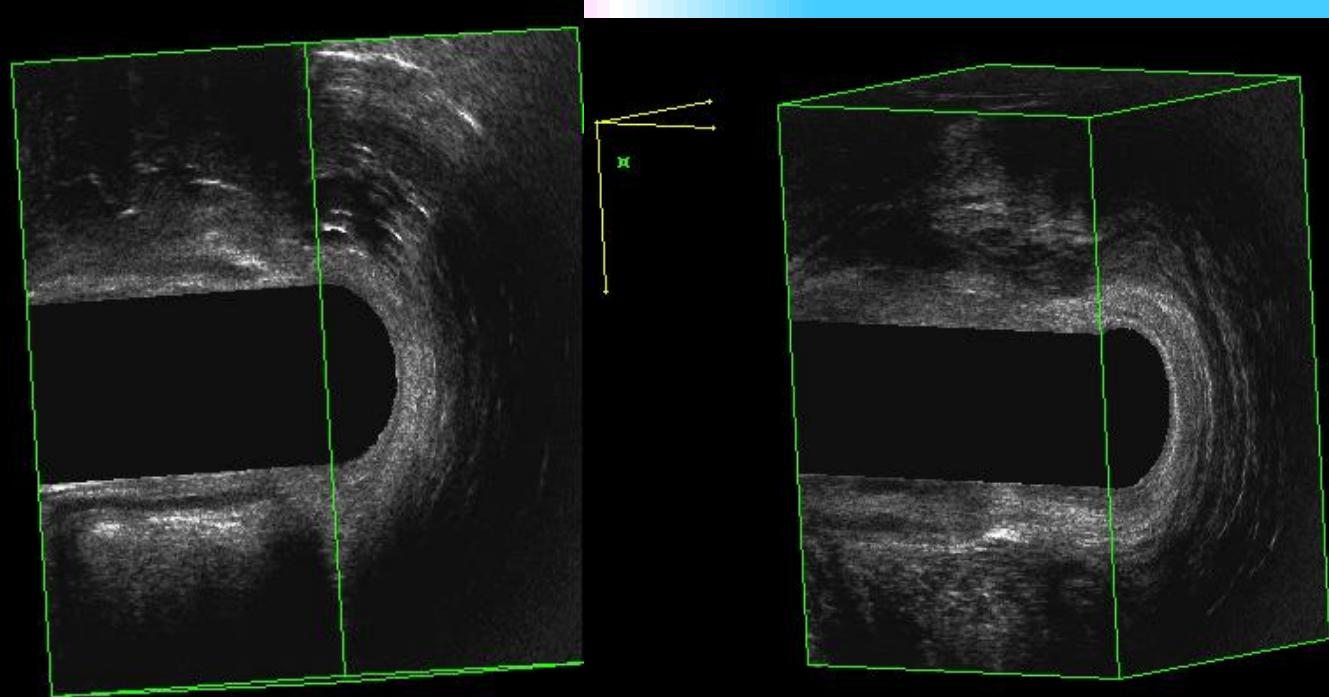




Rozdíl mezi mužem a ženou

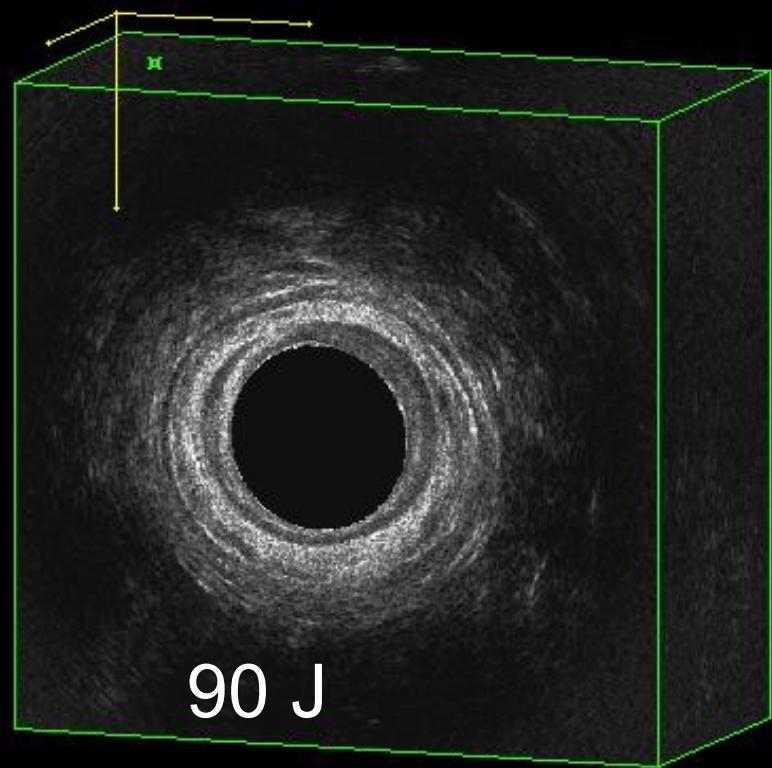
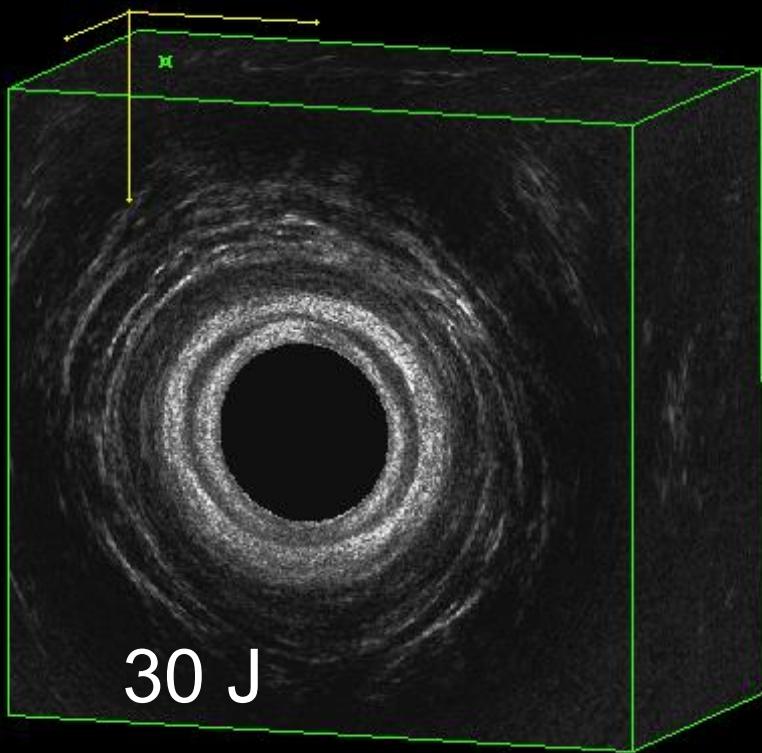






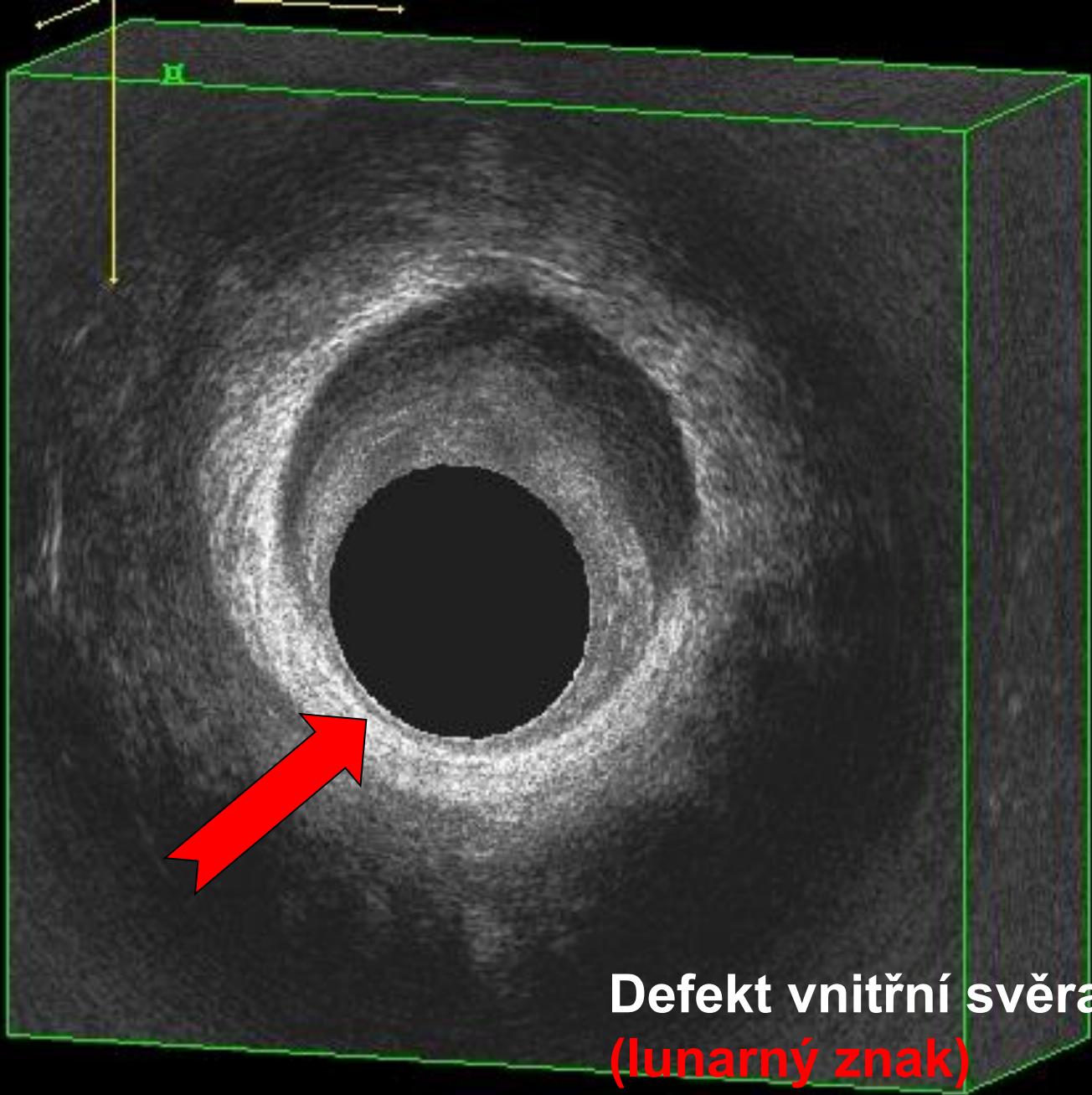
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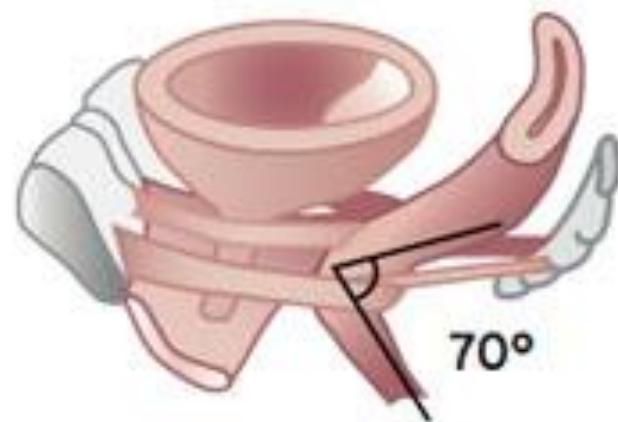
Defekt Vnější svěrač



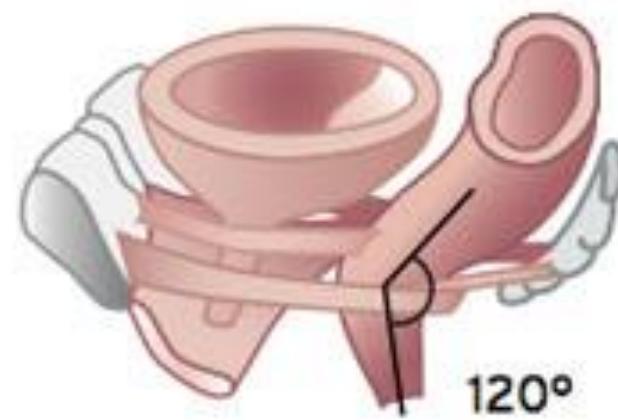
**Defekt vnitřní svěrač
(lunarný znak)**

Defect Characteristics	Score 0	Score 1	Score 2	Score 3
External Sphincter				
Length of defect	None	Half or less	More than half	Whole
Depth of defect	None	Partial	Total	-
Size of defect	None	$\leq 90^\circ$	$91^\circ - 180^\circ$	$> 180^\circ$
Internal Sphincter				
Length of defect	None	Half or less	More than half	Whole
Depth of defect	None	Partial	Total	-
Size of defect	None	$\leq 90^\circ$	$91^\circ - 180^\circ$	$> 180^\circ$

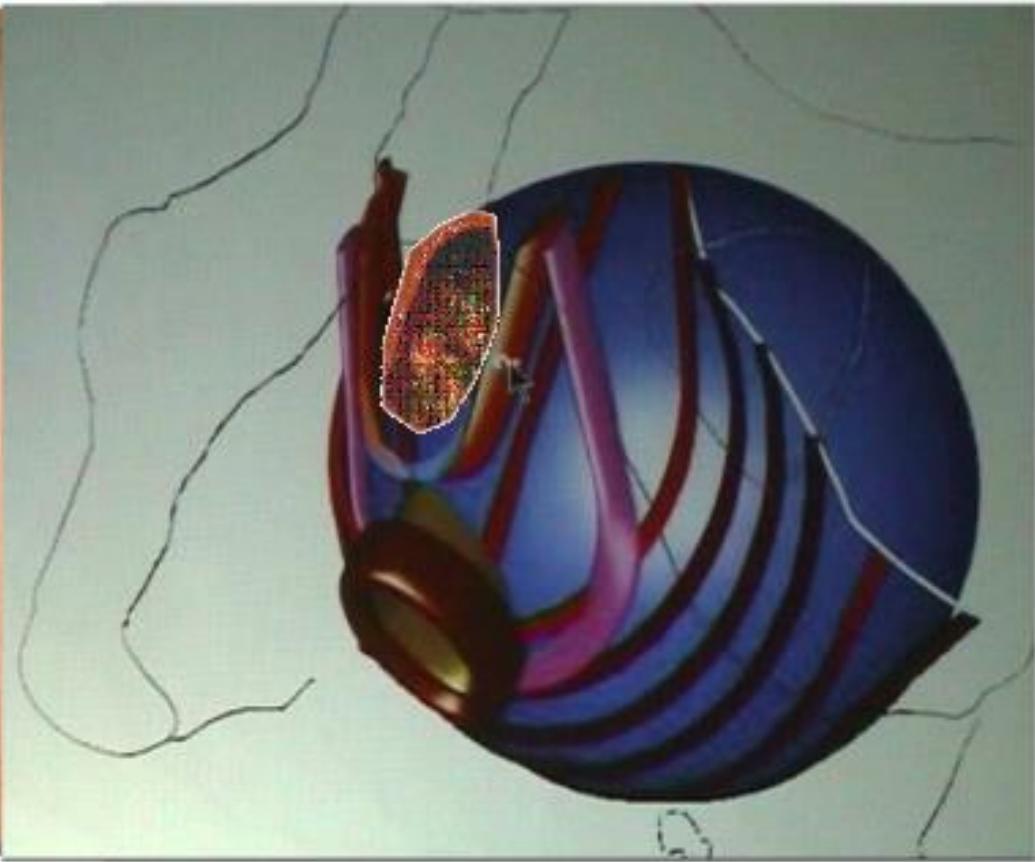




Anorektaler Winkel
bei Druckerhöhung, z.
B. Husten ca. 70 Grad



Anorektaler Winkel bei
Darmentleerung ca.
120 Grad



Atraumatic normal vaginal delivery: how many women get what they want?



Check for updates

Jessica Caudwell-Hall, MBBS (Hons); Ixora Kamisan Atan, MD; Rodrigo Guzman Rojas, MD; Susanne Langer, RN RM; Ka Lai Shek, MD, PhD; Hans Peter Dietz, MD, PhD

BACKGROUND: Trauma to the perineum, levator ani complex, and anal sphincter is common during vaginal childbirth, but often clinically underdiagnosed, and many women are unaware of the potential for long-term damage.

OBJECTIVE: In this study we use transperineal ultrasound to identify how many women will achieve a normal vaginal delivery without substantial damage to the levator ani or anal sphincter muscles, and to create a model to predict patient characteristics associated with successful atraumatic normal vaginal delivery.

STUDY DESIGN: This is a retrospective, secondary analysis of data sets gathered in the context of an interventional perinatal imaging study. A total of 660 primiparas, carrying an uncomplicated singleton pregnancy, underwent an antepartum and postpartum interview, vaginal exam (Pelvic Organ Prolapse Quantification), and 4-dimensional translabial ultrasound. Ultrasound data were analyzed for levator trauma and/or overdistention and residual sphincter defects. Postprocessing analysis of ultrasound volumes was performed blinded against clinical data and analyzed against obstetric data retrieved from the local maternity database. Levator avulsion was diagnosed if the muscle insertion at the inferior pubic ramus at the plane of minimal hiatal dimensions and within 5 mm above this plane on tomographic ultrasound imaging was abnormal, ie the muscle was disconnected from the inferior pubic ramus. Hiatal overdistensibility (microtrauma) was diagnosed if there was a peripartum increase in hiatal area on Valsalva by >20% with the resultant area $\geq 25 \text{ cm}^2$. A sphincter defect was diagnosed if a gap of >30 degrees was seen in ≥ 4 of 6 tomographic ultrasound imaging slices bracketing the external anal sphincter. Two models were tested: a first model that defines severe pelvic floor trauma as either obstetric anal sphincter injury or levator avulsion,

and a second, more conservative model, that also included microtrauma.

RESULTS: A total of 504/660 women (76%) returned for postpartum follow-up as described previously. In all, 21 patients were excluded due to inadequate data or intercurrent pregnancy, leaving 483 women for analysis. Model 1 defined nontraumatic vaginal delivery as excluding operative delivery, obstetric anal sphincter injuries, and sonographic evidence of levator avulsion or residual sphincter defect. Model 2 also excluded microtrauma. Of 483 women, 112 (23%) had a cesarean delivery, 103 (21%) had an operative vaginal delivery, and 17 (4%) had a third-/fourth-degree tear, leaving 251 women who could be said to have had a normal vaginal delivery. On ultrasound, in model 1, 27 women (6%) had an avulsion and 31 (6%) had a residual defect, leaving 193/483 (40%) who met the criteria for atraumatic normal vaginal delivery. In model 2, an additional 33 women (7%) had microtrauma, leaving only 160/483 (33%) women who met the criteria for atraumatic normal vaginal delivery. On multivariate analysis, younger age and earlier gestation at time of delivery remained highly significant as predictors of atraumatic normal vaginal delivery in both models, with increased hiatal area on Valsalva also significant in model 2 (all $P \leq .035$).

CONCLUSION: The prevalence of significant pelvic floor trauma after vaginal child birth is much higher than generally assumed. Rates of obstetric anal sphincter injury are often underestimated and levator avulsion is not included as a consequence of vaginal birth in most obstetric text books. In this study less than half (33–40%) of primiparous women achieved an atraumatic normal vaginal delivery.

Key words: birth trauma, levator avulsion, obstetric anal sphincter injury, pelvic organ prolapse, ultrasound

It is the first birth that does the damage: a cross-sectional study 20 years after delivery

Ixora Kamisan Atan^{1,2}  · Sylvia Lin^{3,4} · Hans Peter Dietz¹ · Peter Herbison⁵ · Peter Donald Wilson⁵ · for the ProLong Study Group

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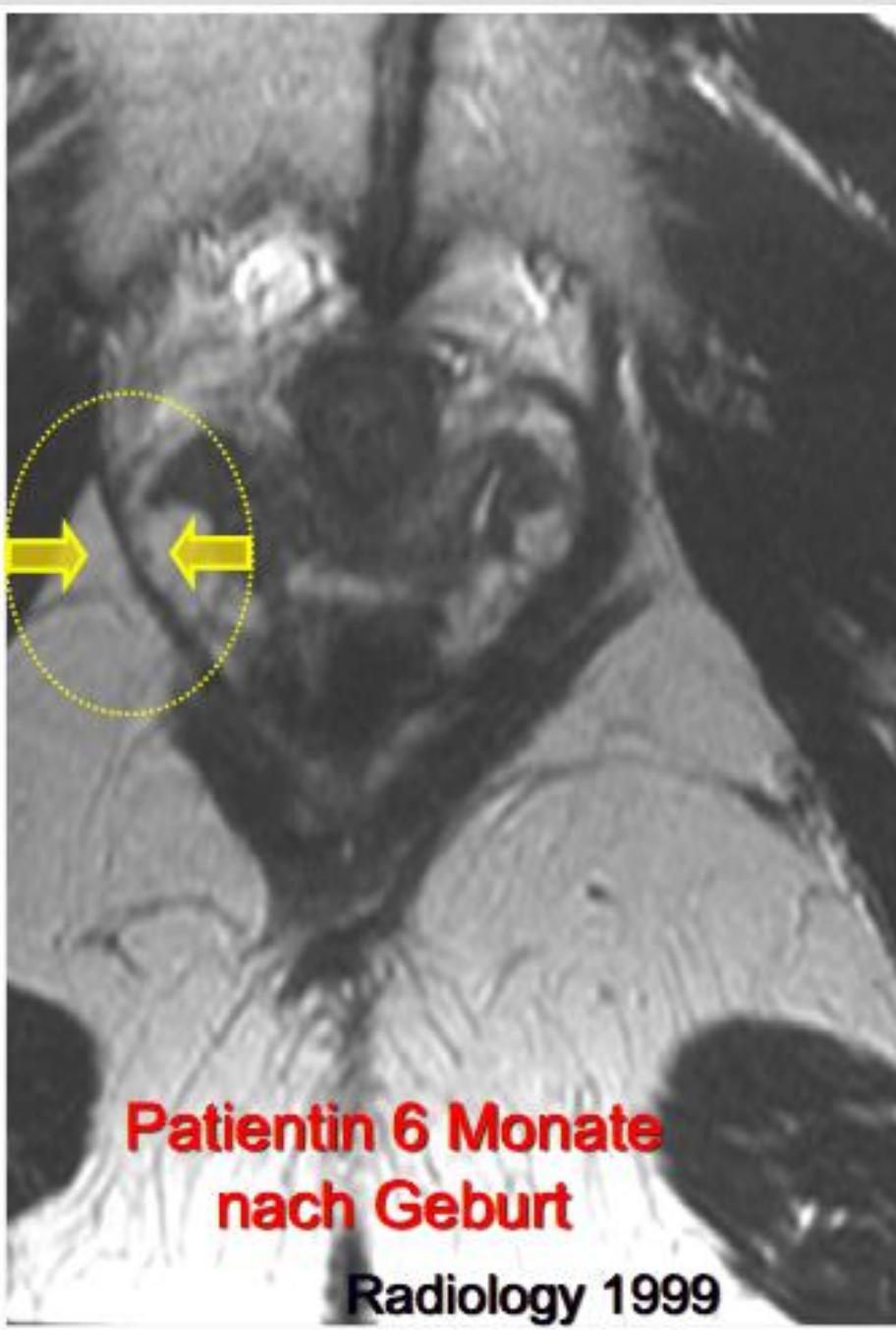
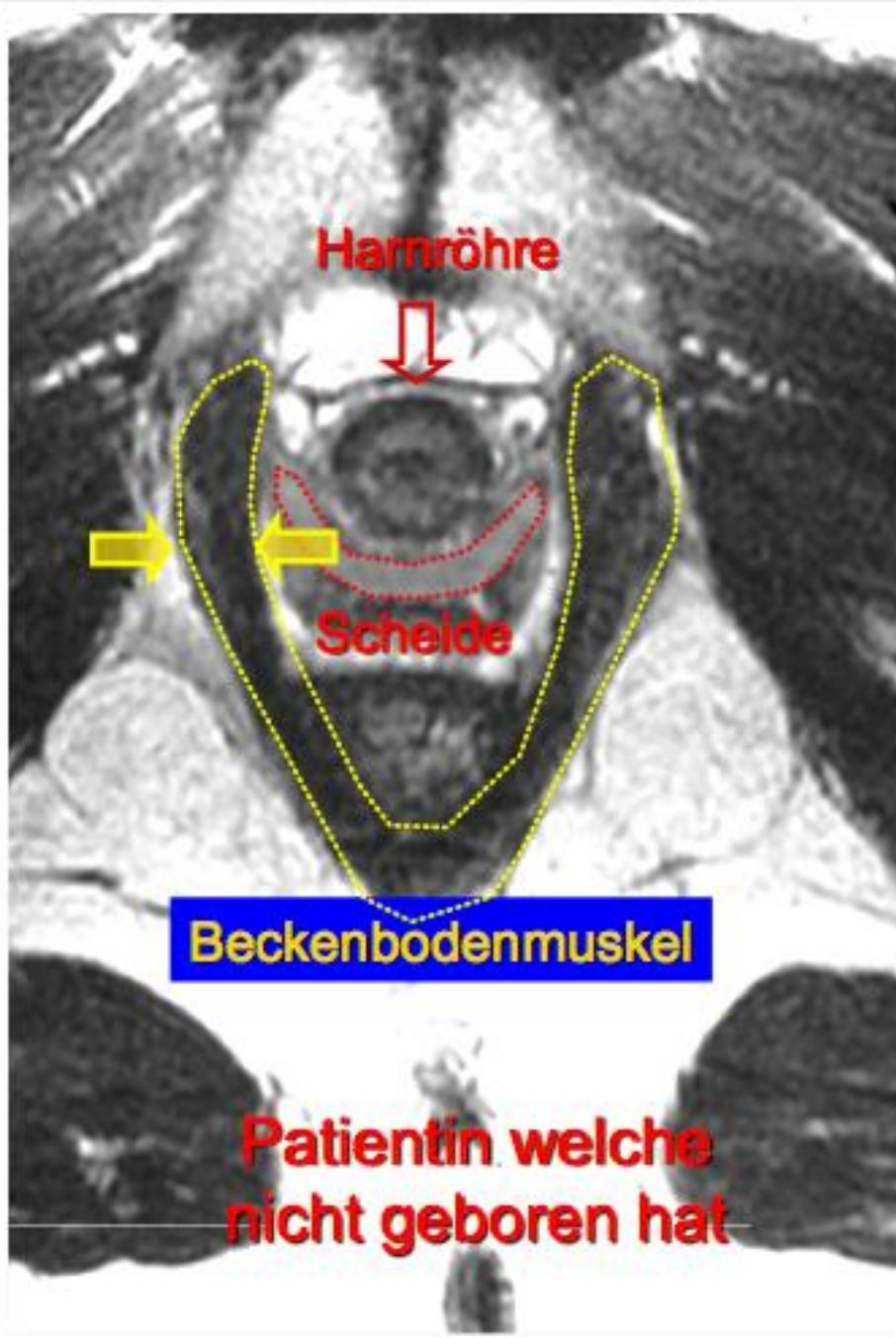
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Table 1 Prevalence of levator ani muscle (LAM) avulsion and external anal sphincter (EAS) defects by parity of the study population ($N = 193$)

Study population ($N = 193$)	Parity			OR (95% CI)	* p value
		VP0 ($n = 18$)	VP1 ($n = 27$)	VP2+ ($n = 148$)	
Levator avulsion ($n = 30$)	30 (16)	0 (0)	7 (26)	23 (15.5)	1.9 (0.72–5.01) 0.19
EAS defect ($n = 24$)	24 (12.4)	1 (5.6)	4 (14.8)	19 (12.8)	1.2 (0.4–3.8) 0.78

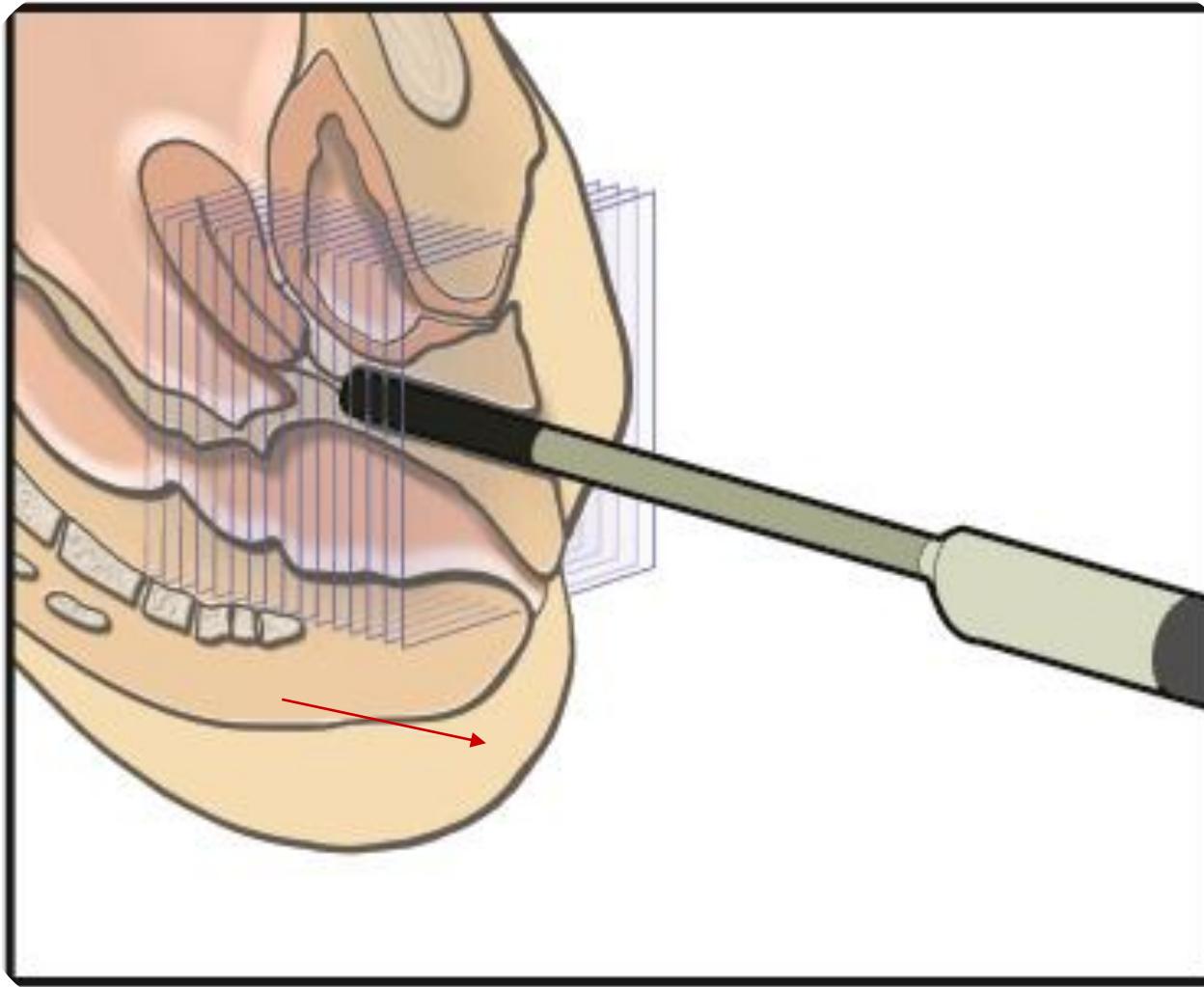
Data expressed in n (%) and differences expressed in odds ratios and 95% confidence intervals. VP0 are women who had delivered exclusively by Cesarean section only. VP1 and VP2+ primiparous and multiparous women who had delivered vaginally respectively

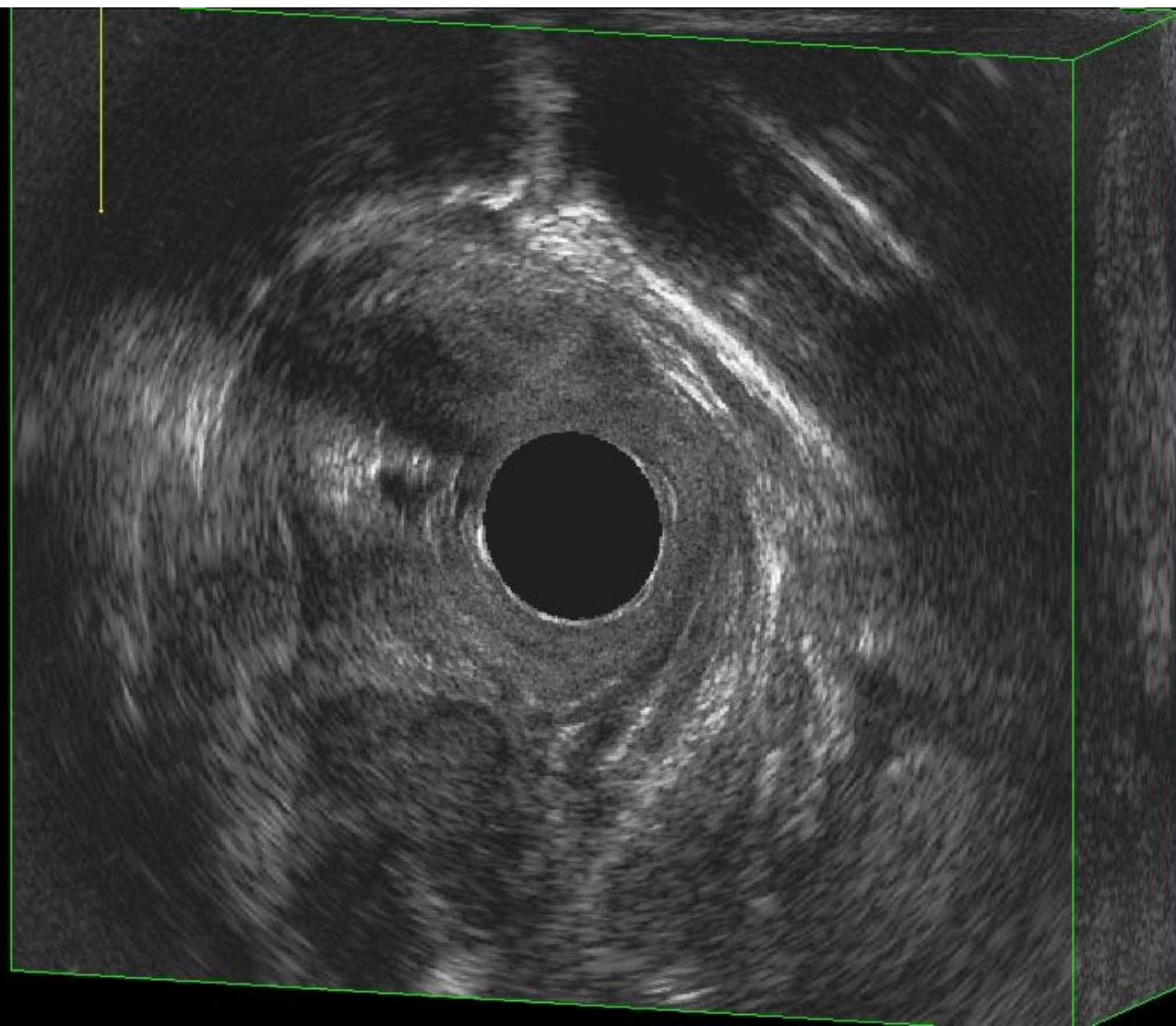
*Association between parity and maternal birth trauma (levator ani avulsion and external anal sphincter defects) in women who had delivered vaginally ($N = 175$) was assessed using Fisher's exact test comparing VP1 and VP2 +

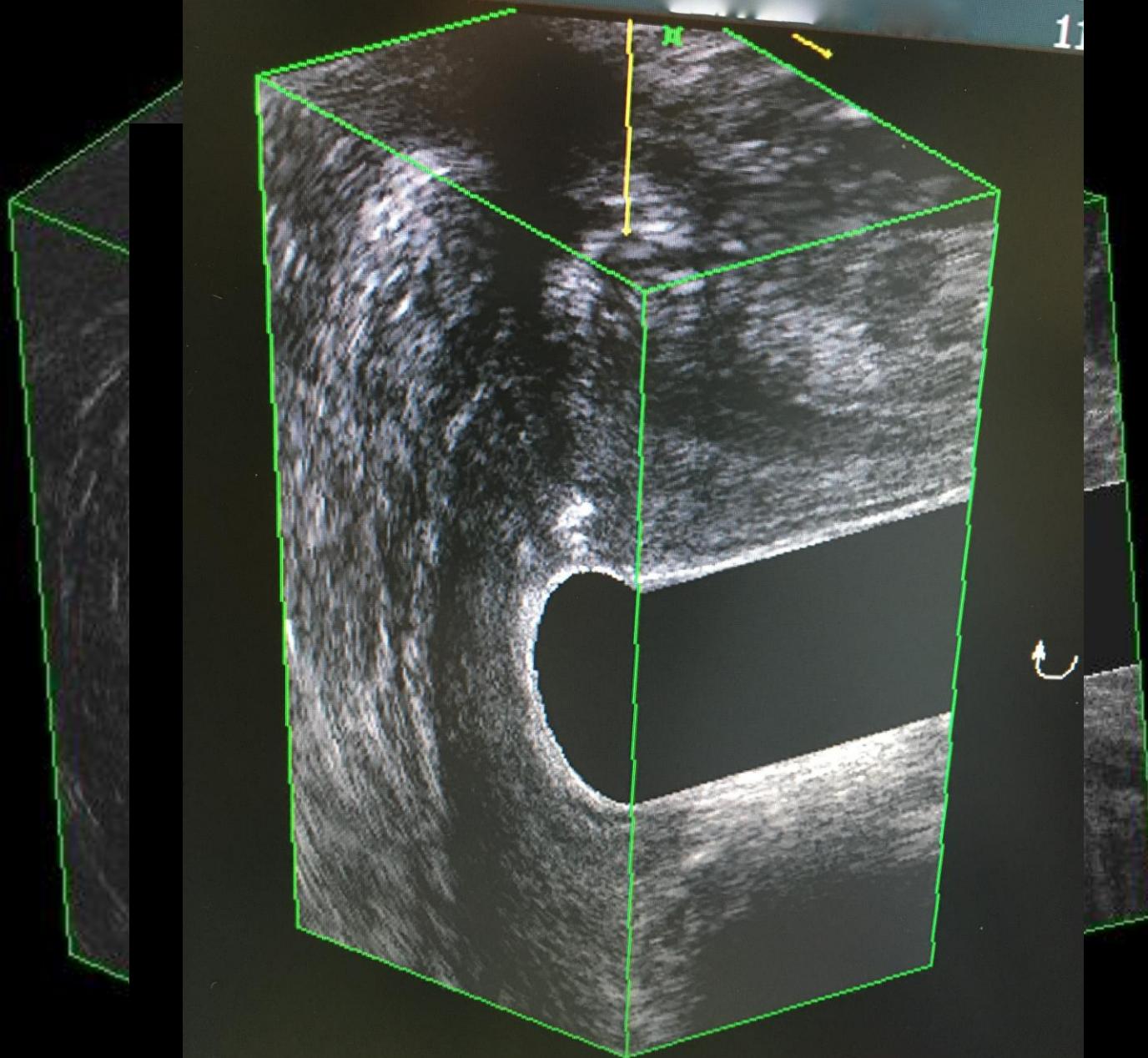


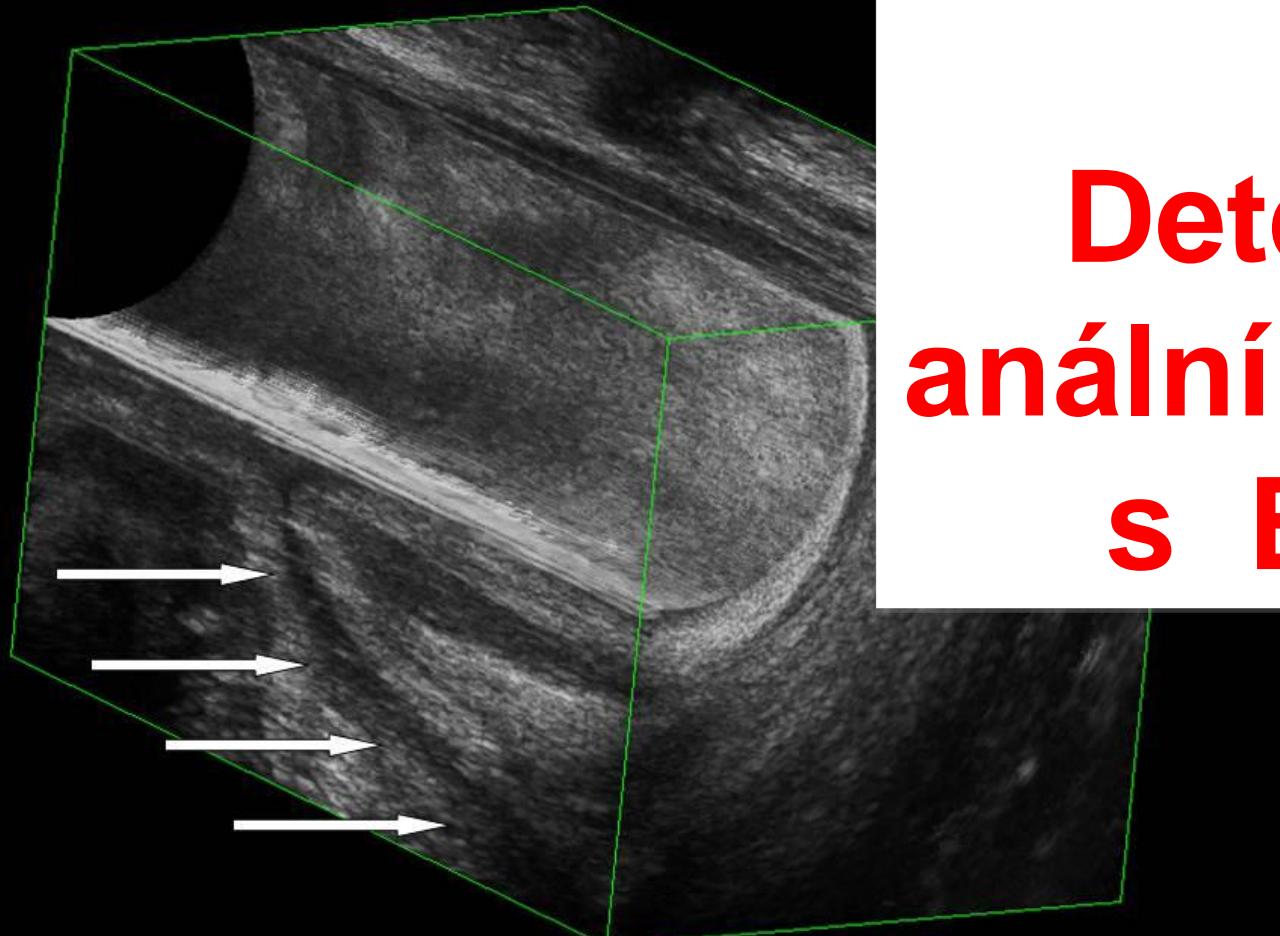


Transvaginální přístup









Detekce anální píštěle s EUS

Cíle?

1. Primární trakt

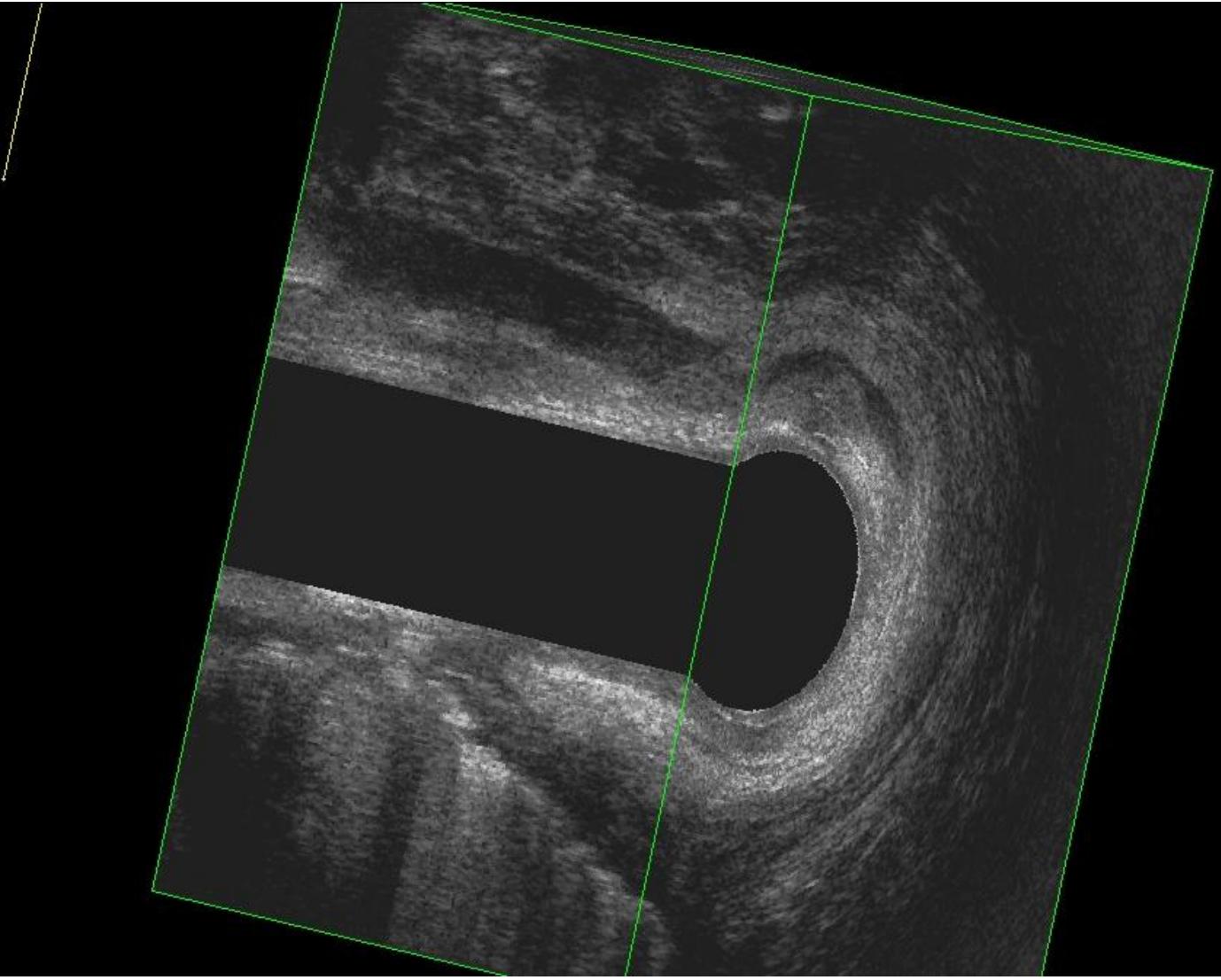
2. Sekundární trakt

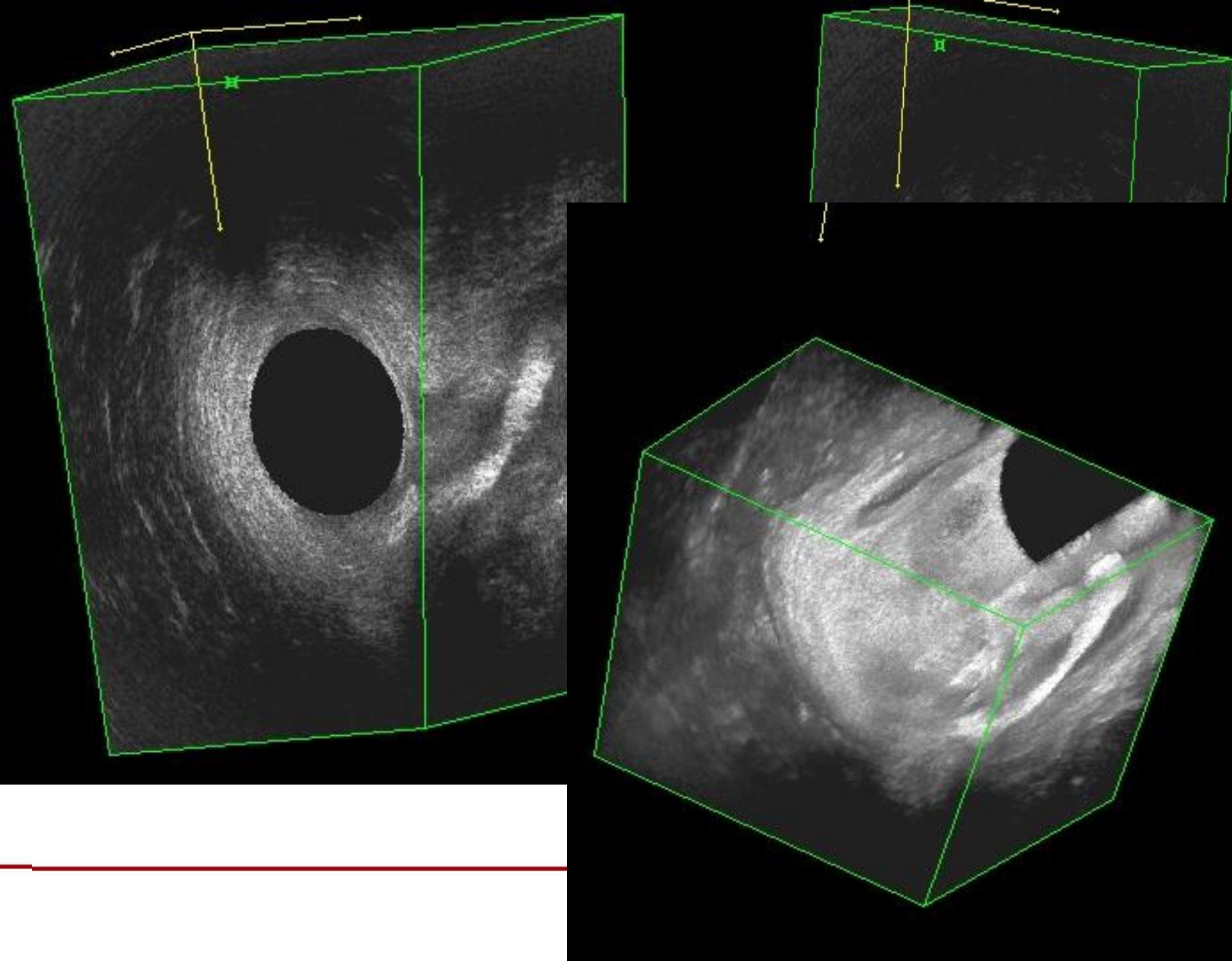
3. Vnitřní ústí

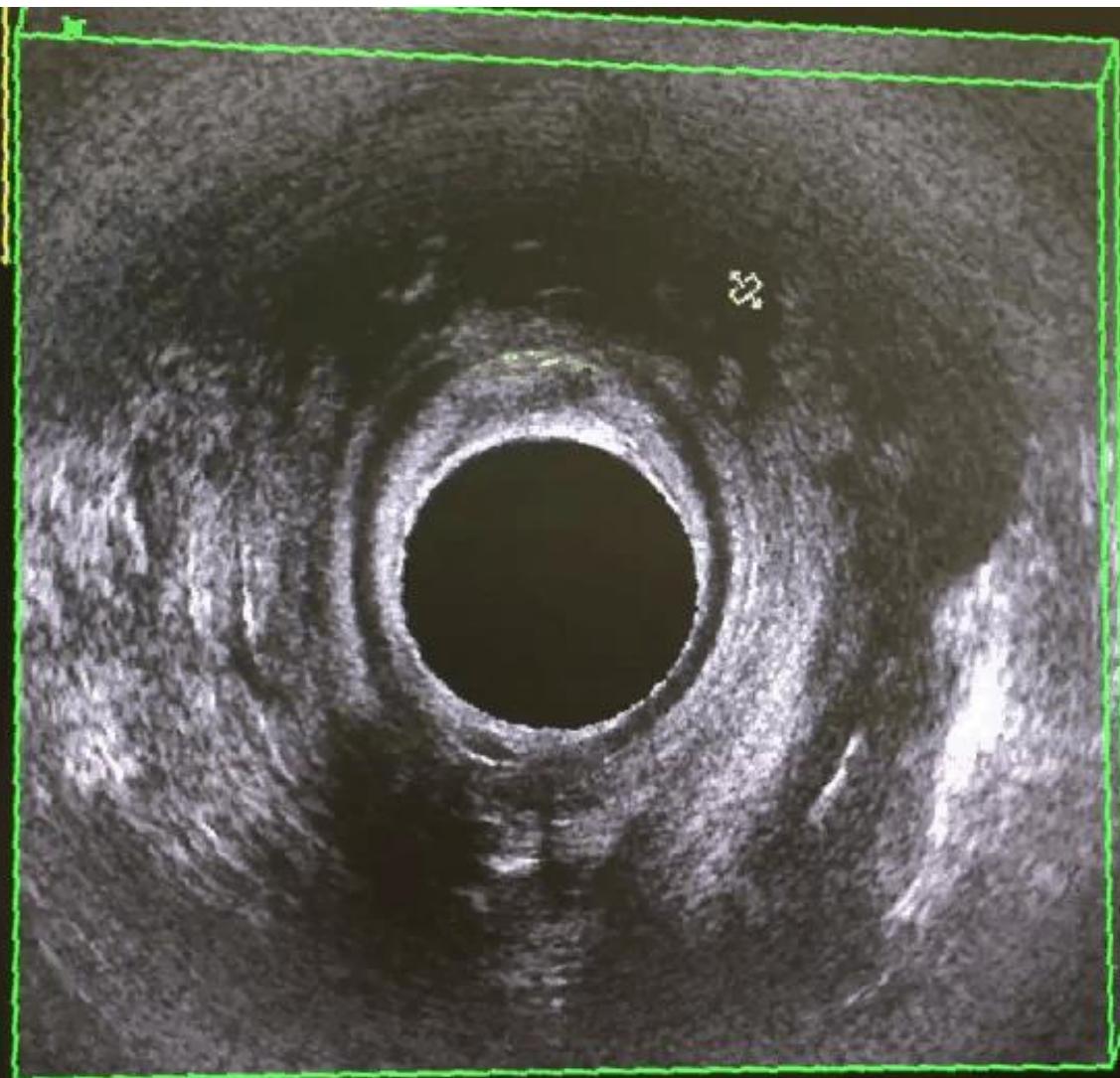
H₂O₂-Enhancement in EAUS

Accuracy rates	Primary tracts	Secondary tracts	Horseshoe extensions
Clinical evaluation	65%	73 %	80%
EAUS	50%	65 %	80%
EAUS with H ₂ O ₂	77%	88 %	89%

Výskyt traktu fistuly v EUS



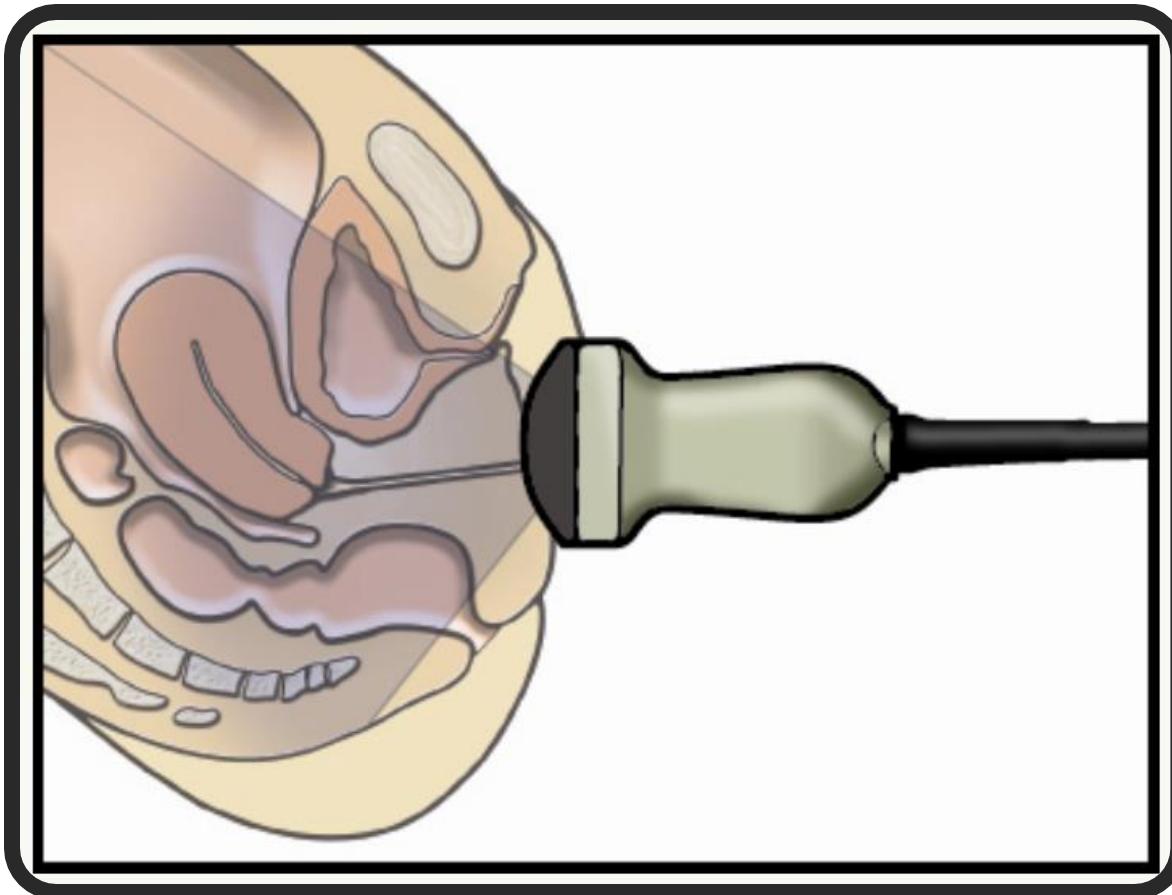


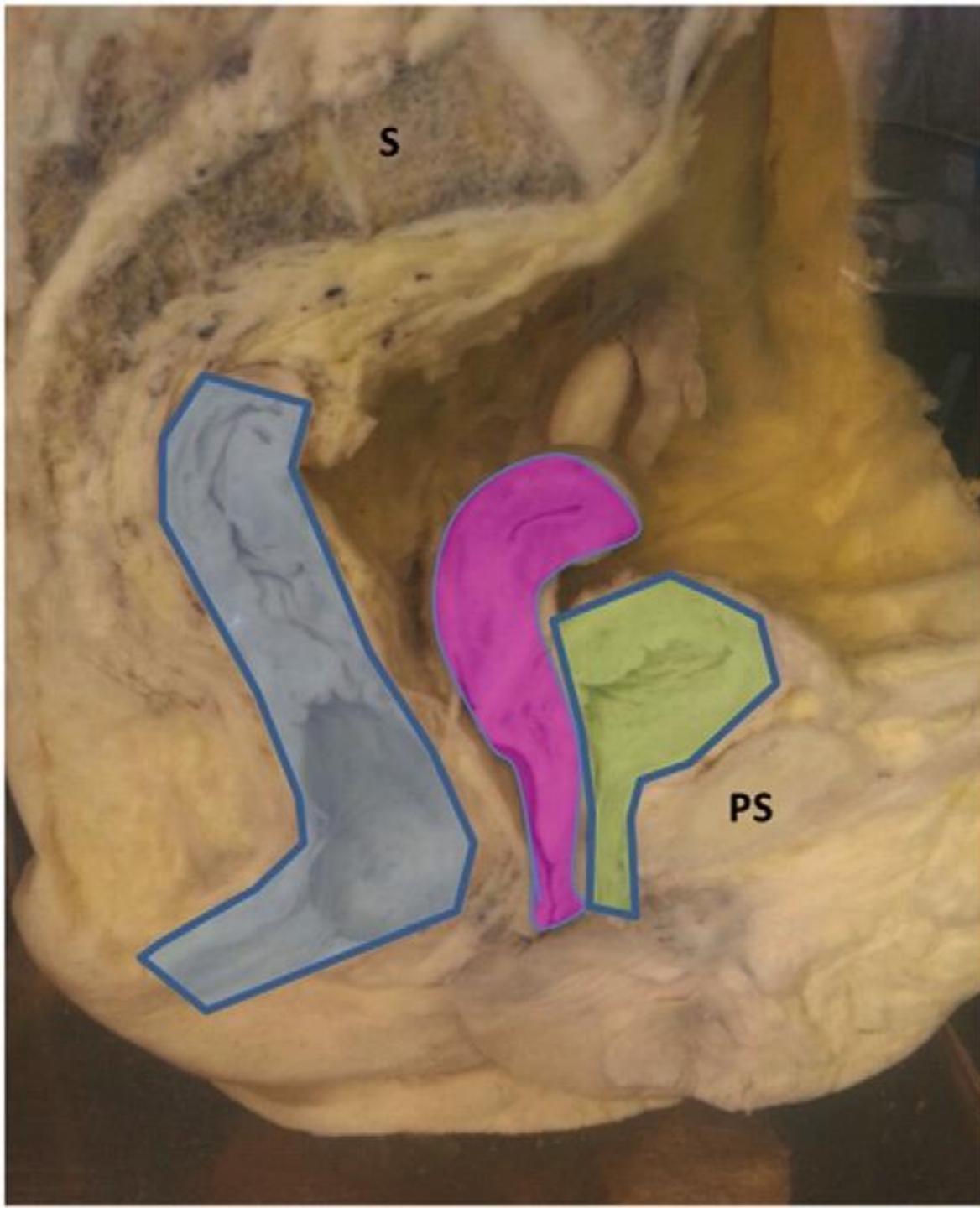


- 3D
- ▼ Benutzeransicht
Neu Update D
- Standard
- Presets
- ▼ Anmerkungen
Label
- Pfeil
- ▼ Layout
 - Orientierung
 - Drahtmodell
 - Patient ID
 - Messungen
- Animieren

- ▼ Messungen
Distance
- Measurements

Přístup perineální





PPI: 1.50<1.50

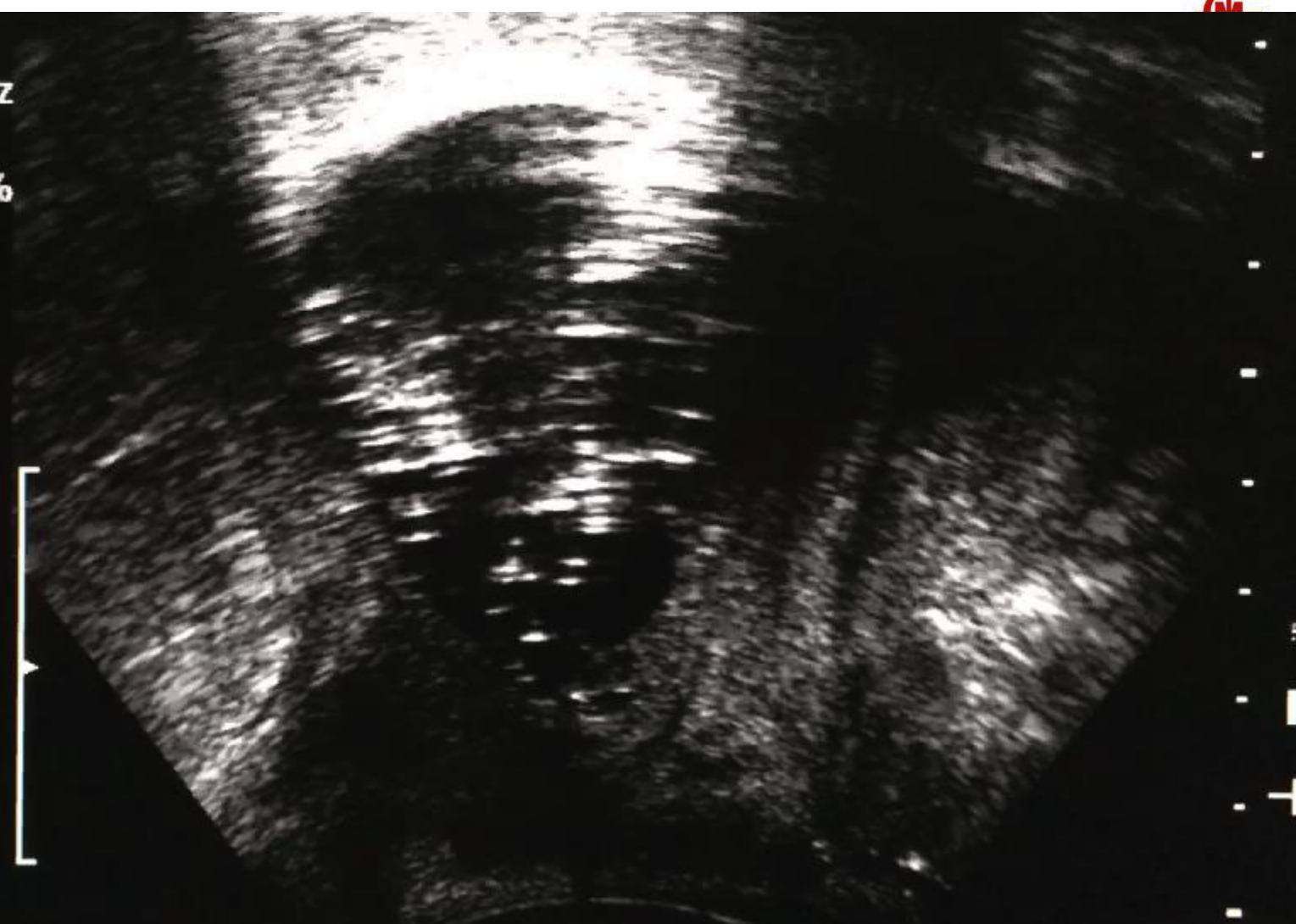
TIE: 0.3<2.0

Res / Hz 1/32 Hz

▼ Allgemein

Gain

50 %



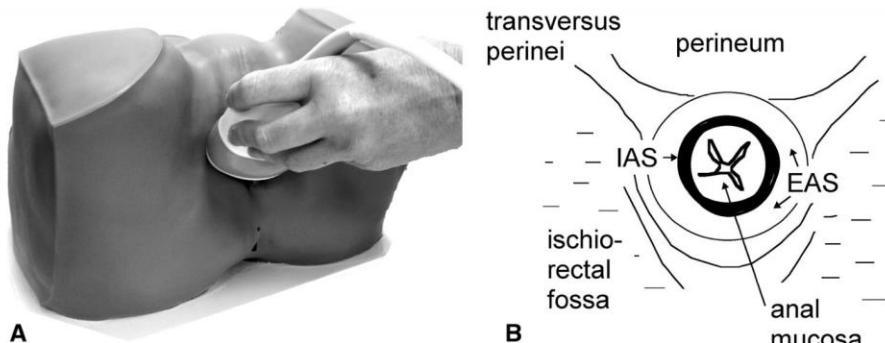
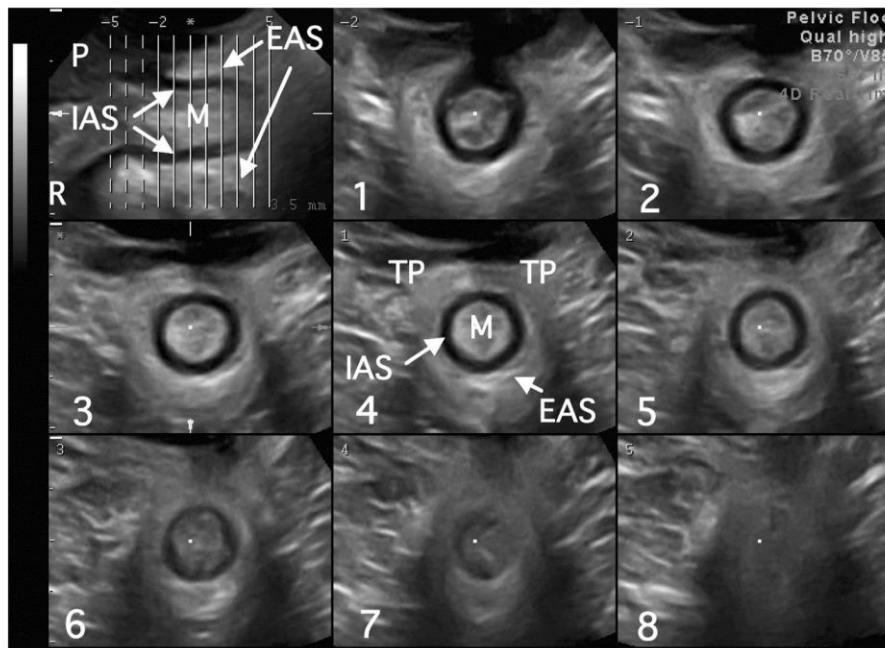


Fig. 9 Translabial imaging of the external anal sphincter. Best resolutions are achieved with volume acquisition in the transverse plane as shown in (a). The resulting image shows the external anal

sphincter as an iso- to hyperechogenic ring, and the internal anal sphincter as a hypoechoic structure



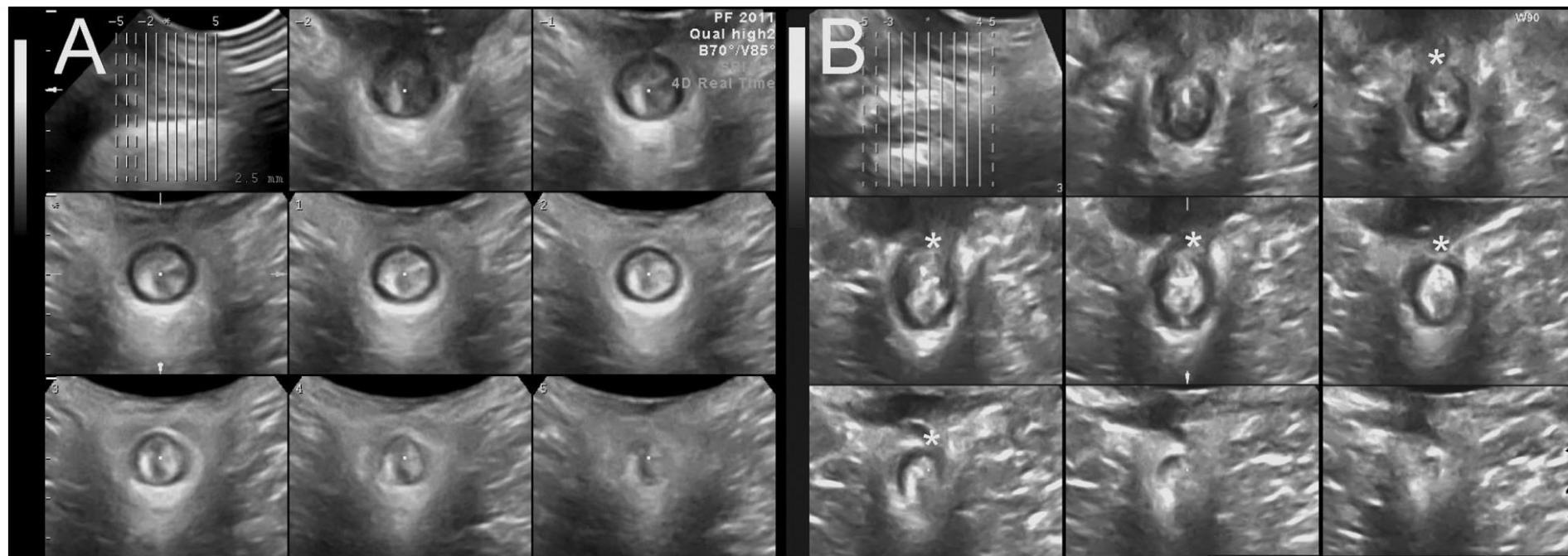


Fig. 11 Tomographic representation of the anal sphincters in late pregnancy (**a**) and after unsatisfactory surgical repair of a 3c obstetric anal sphincter tear (**b**). There remains a residual defect of both the external anal sphincter (marked by asterisk) and internal anal sphincter

- Existuje řada příčin fekální inkontinence.
Některé z nich lze zobrazit pomocí UZ :
 - poškození svalů análního svěrače
 - porodní trauma,
 - dysfunkce pánevního danna
 - a změny v konečníku (nádor, zánět, píštěl)
- Přístup je
 - transanální,
 - transvaginální nebo
 - perineální (poslední jednoduchou bříšní sondou)





Děkuju!