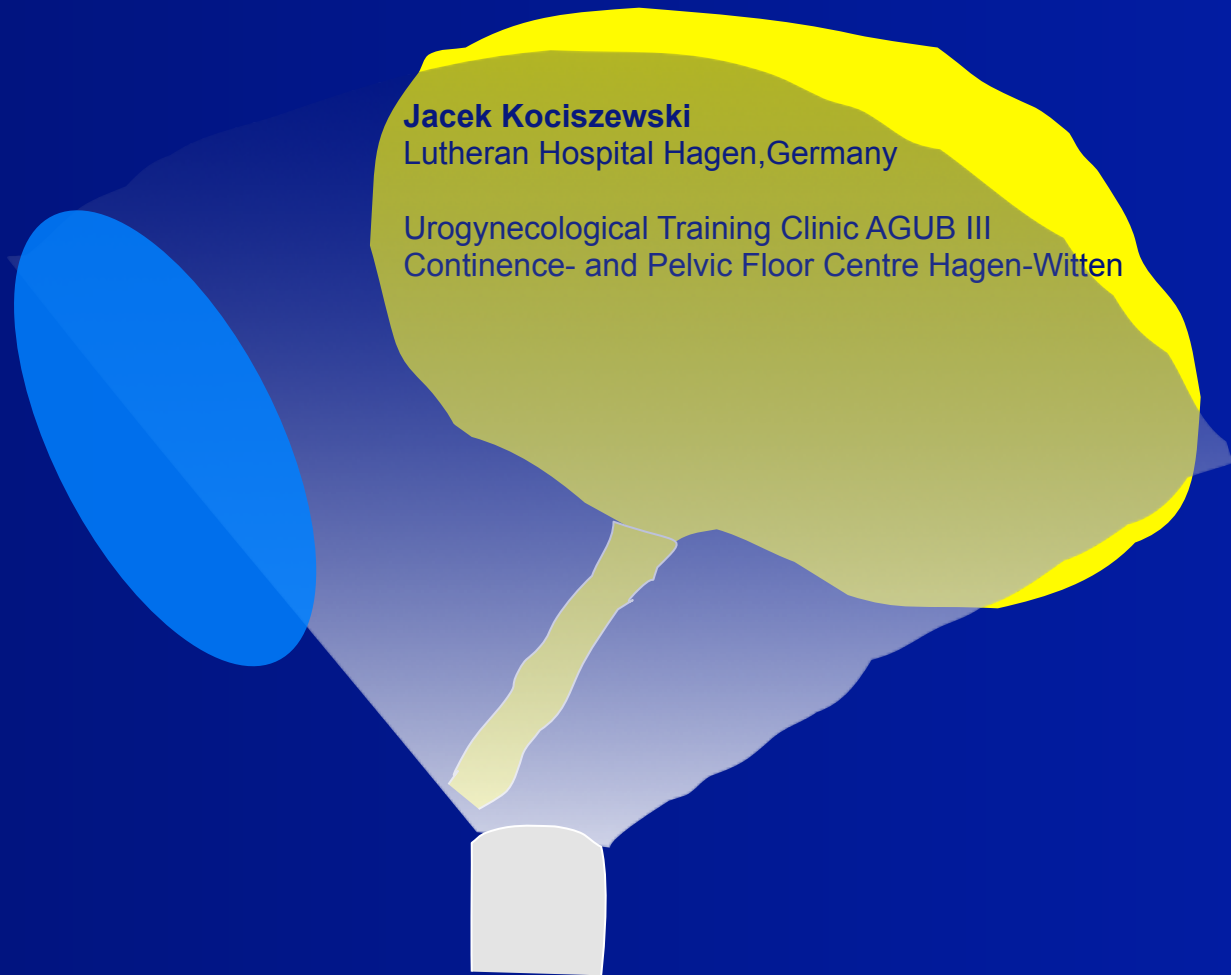


Pelvic Floor Sonography

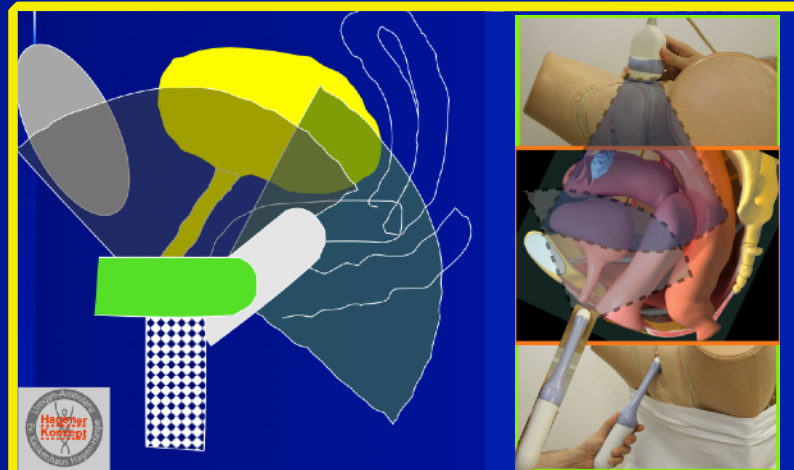
the main diagnostic evaluation tool in the urogynaecology
and pessary therapy



The concept of pelvic floor sonography

PFS represents a method, whereby the introitus/ vaginal/ endoanal and abdominal sonography can be combined in one investigative procedure

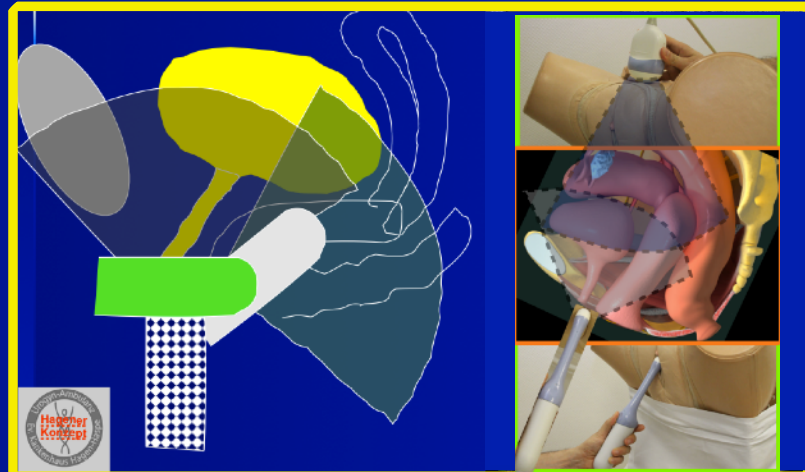
- Introitus - Sonography
- Vaginal - Sonography
- Endoanal - Sonography
- Abdominal - Sonography



The concept of pelvic floor sonography

With PF-Sonography all compartments of the pelvic floor can and must be displayed

- Introitus - Sonography
- Vaginal - Sonography
- Endoanal - Sonography
- Abdominal - Sonography



The concept of pelvic floor sonography

Advantages:

- non-invasive
- without contrast agent
- objective
- dynamic
- three compartments
- three planes in real time with 2D
- bimanual examination



The concept of pelvic floor sonography

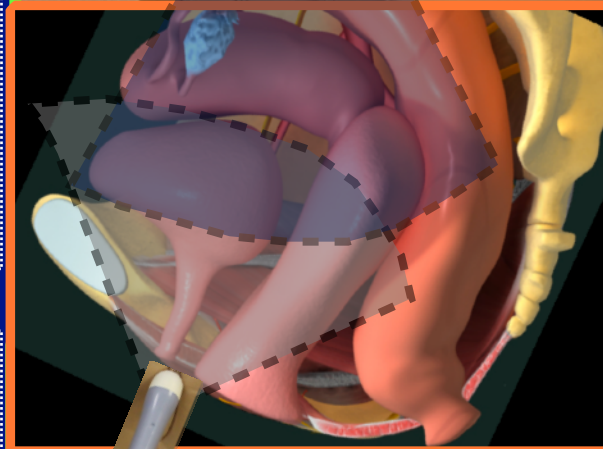
imaging modalities

It enables the assessment of the anterior compartment in DeLancey's level II and helps us to differentiate between central and lateral defect of the endopelvic fascia

We usually use this technique, but the vaginal transducer must change his position to examine all compartments

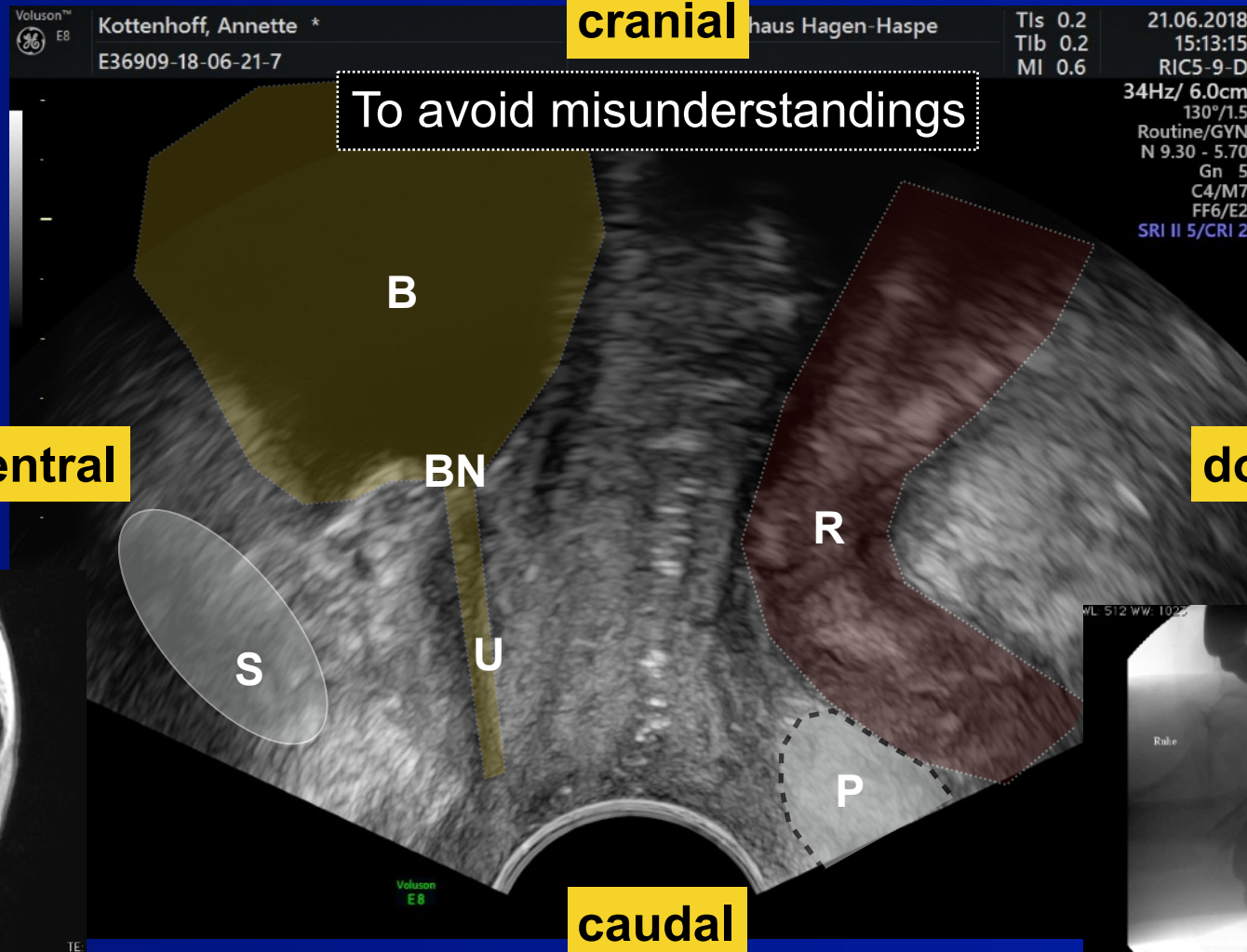


PFS-TA



PFS-TV

Pelvic Floor - Sonography Anatomy



Pelvic Floor Sonography

PFS-TV



PF-Sono preoperative

1. anatomy with filled bladder
2. functional anatomy
3. anatomy with empty bladder

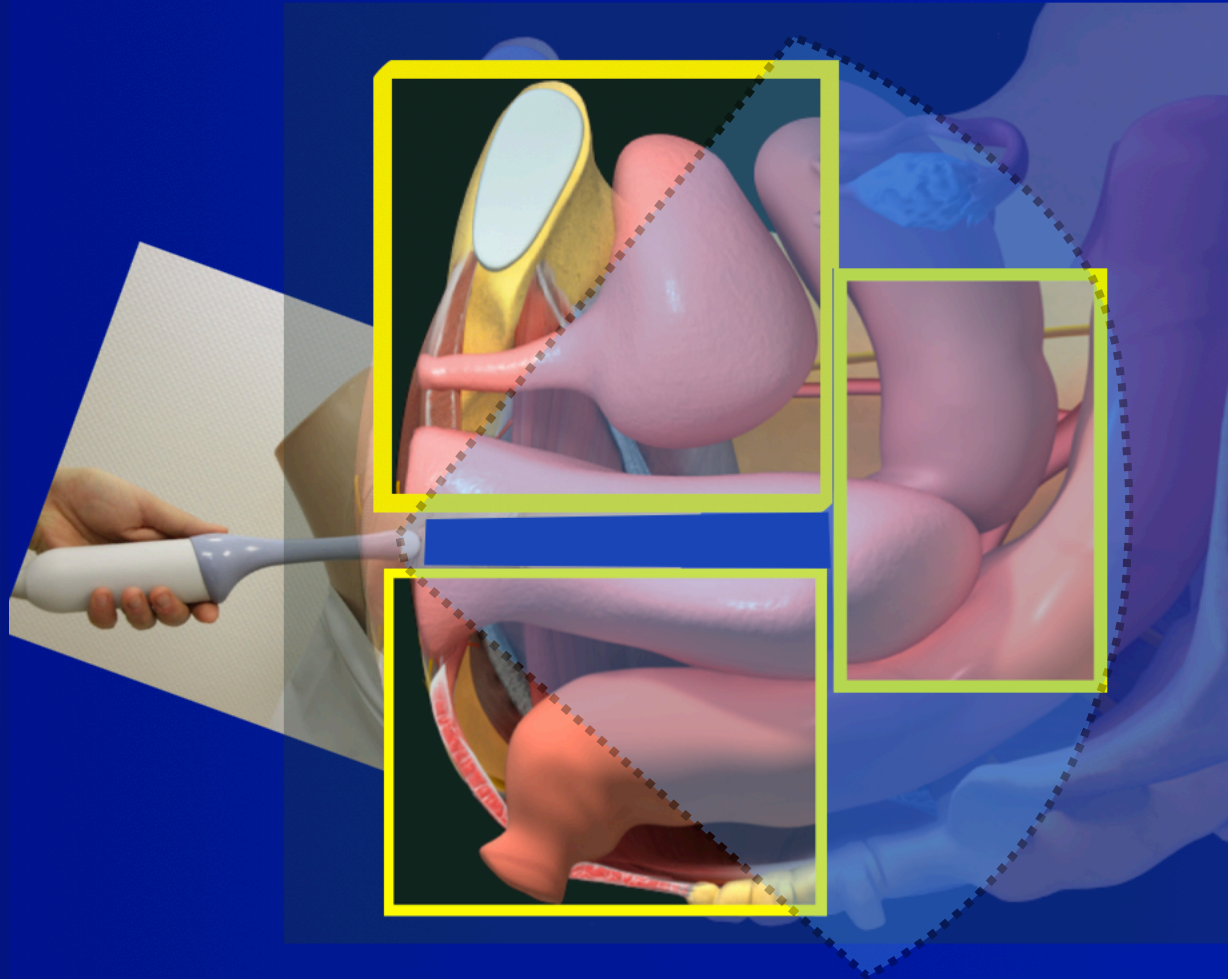
PF-Sono postoperative

1. surgical success
2. complications
3. recurrence surgery

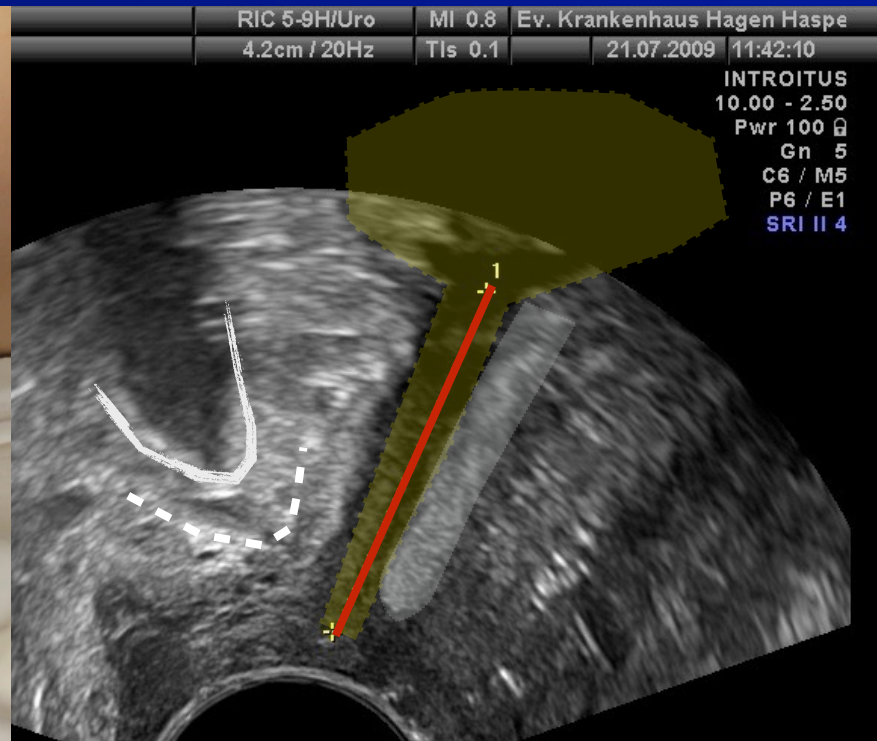
Pelvic Floor - Sonography

PFS-TV

With the vaginal
transducer
we can examine
all three
compartments
easily and
quickly



Pelvic Floor - Sonography anatomy at rest



At first we have to learn
to observe in real time
the pelvic organs:

- at rest
- during muscle contraction
- during Valsalva manouver

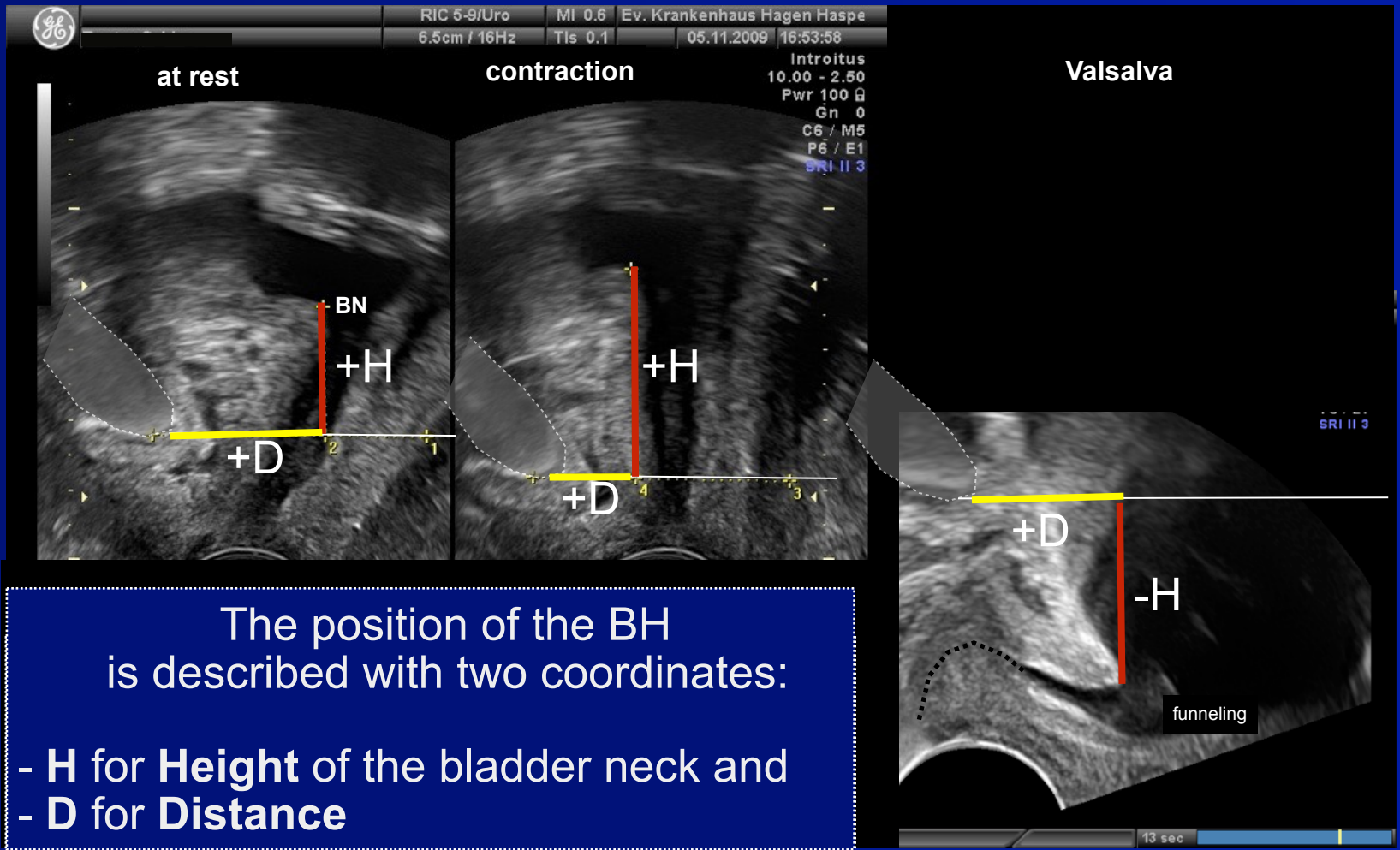
to evaluate the anatomy
and movement of
the bladder, the BN
and the urethra

In this midsagittal plane we measure the urethral length

You can see the symphysis pubis with the interpubic disc
(the inferior symphyseal margin), lig. arcuatum,
hypoechoic urethra, BN, bladder, bladder floor
and echogenic external urethral sphincter EUS

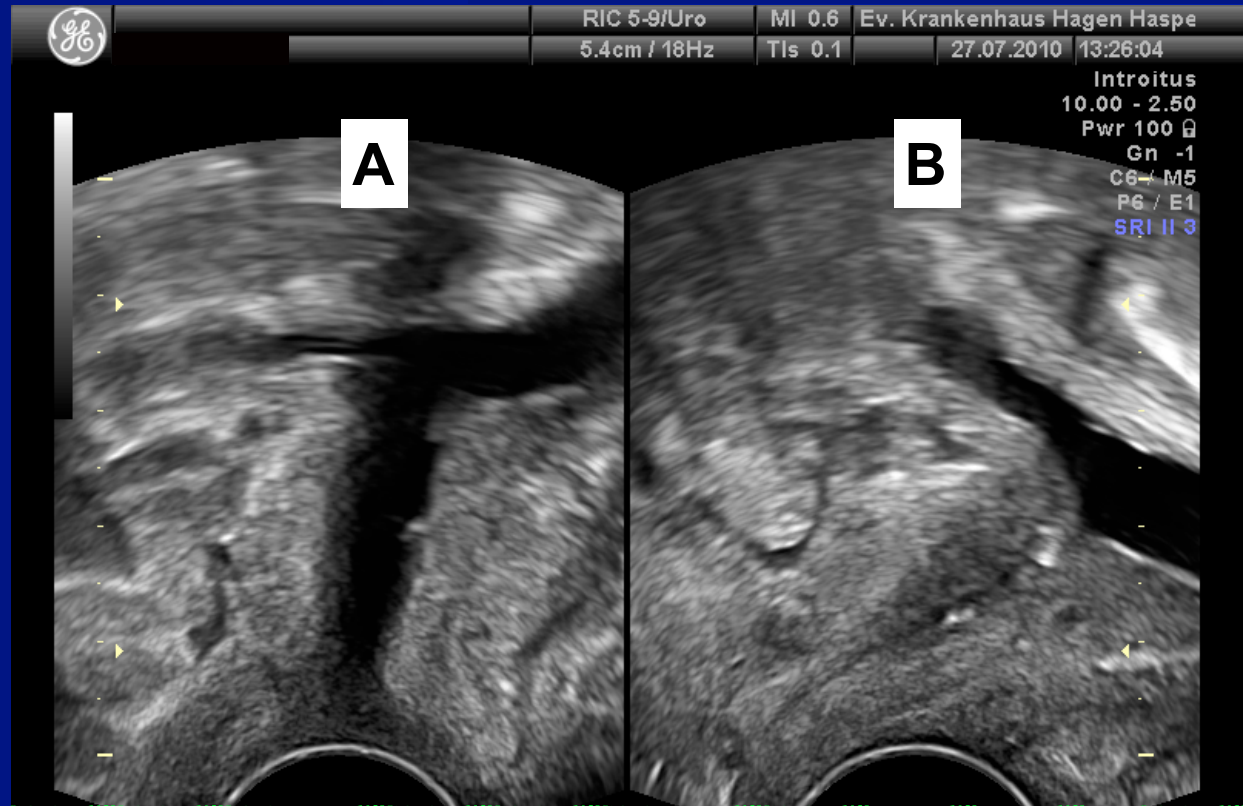
Pelvic Floor Sonography

Evaluation of the bn position

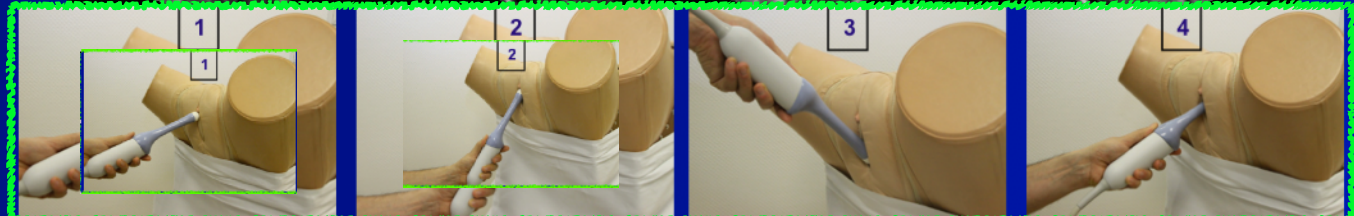


Pelvic Floor Sonography

necessary probe movement

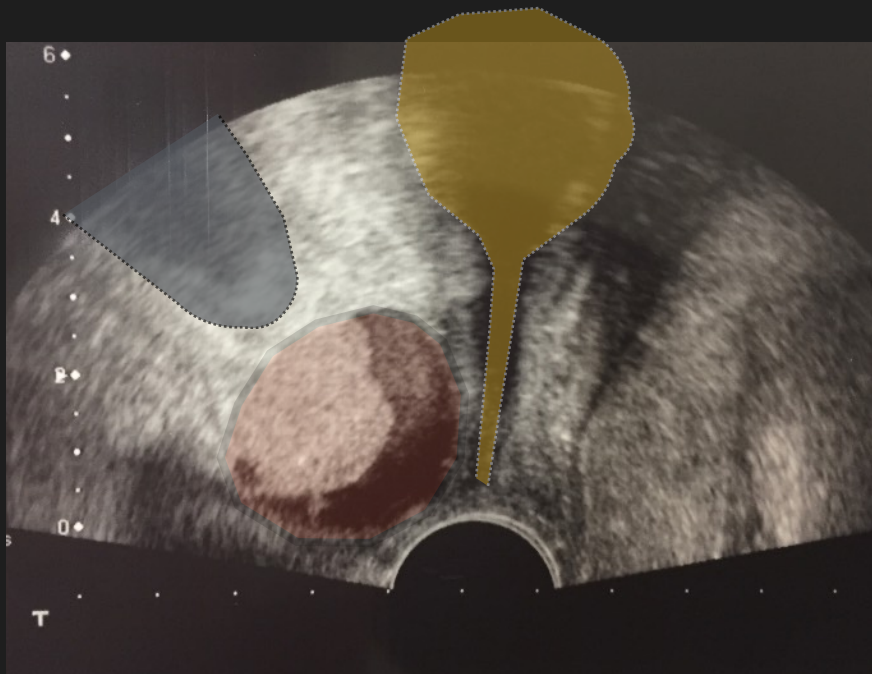


which position of the probe is necessary to get these images?



Pelvic Floor - Sonography

bimanual examination

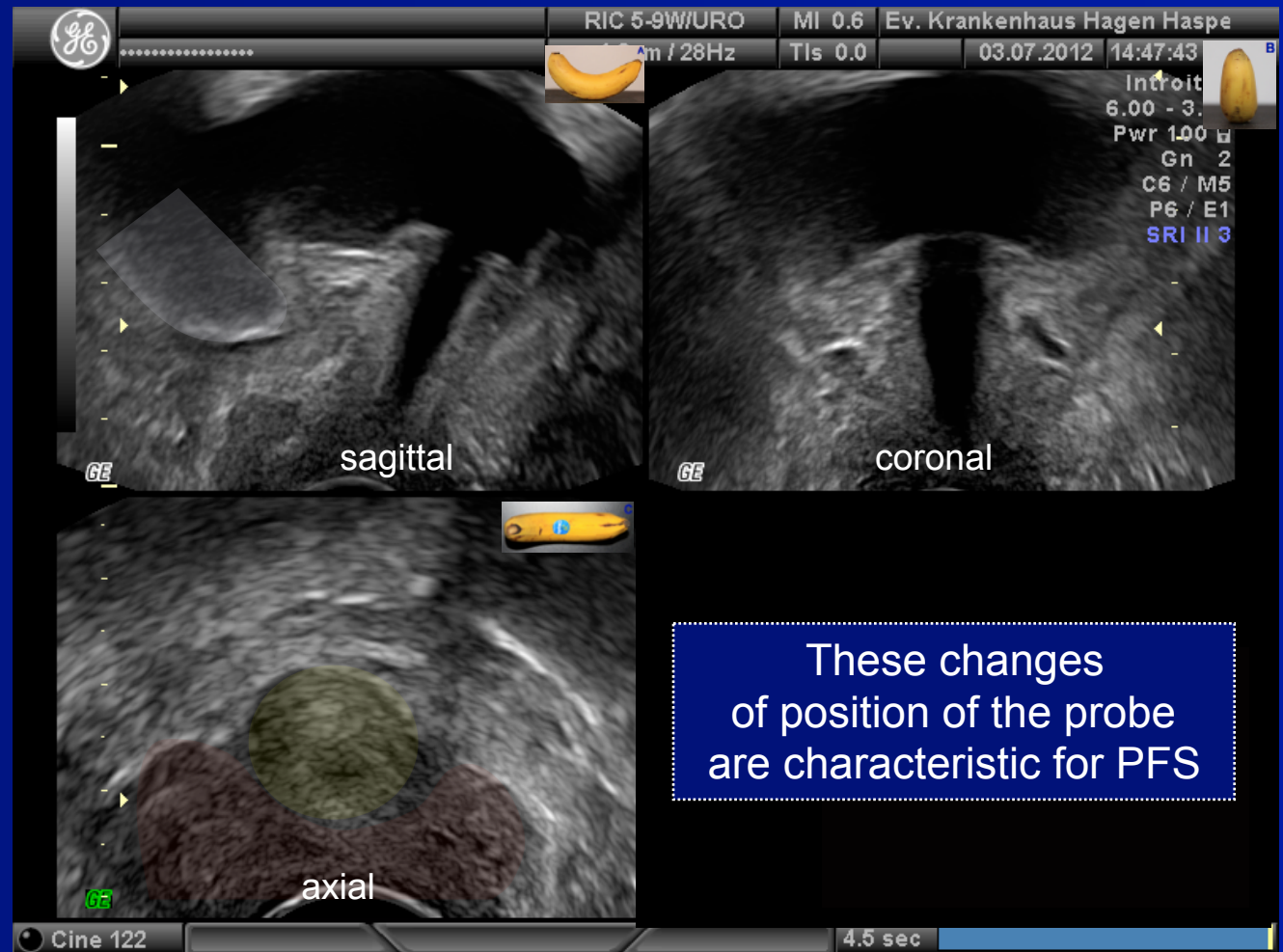


PFS allows bimanual examination.
All suspicious findings, like the tumor between the
urethra and the symphysis, can be digitally
controlled under the ultrasound view



Pelvic Floor - Sonography

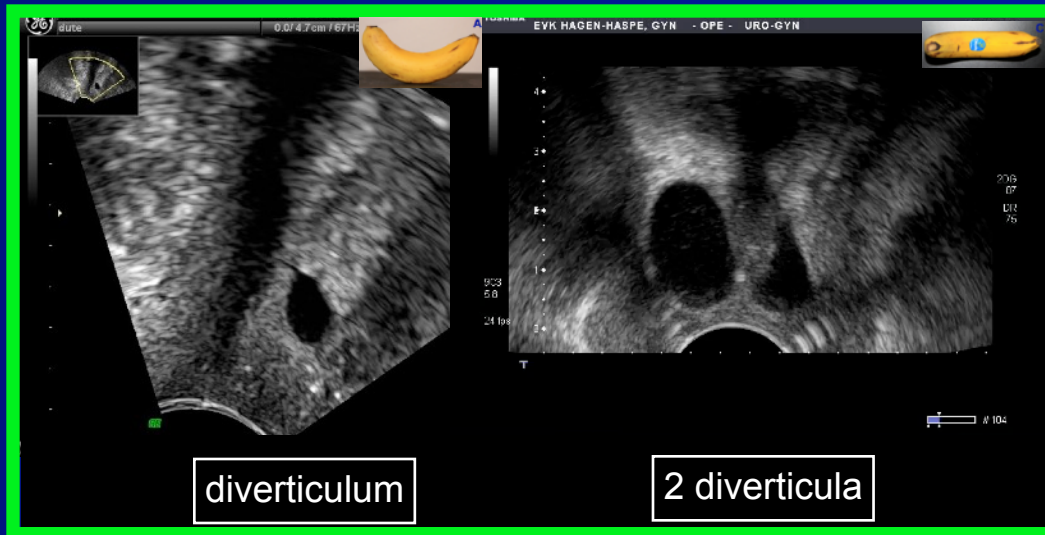
Evaluation of the anterior compartment



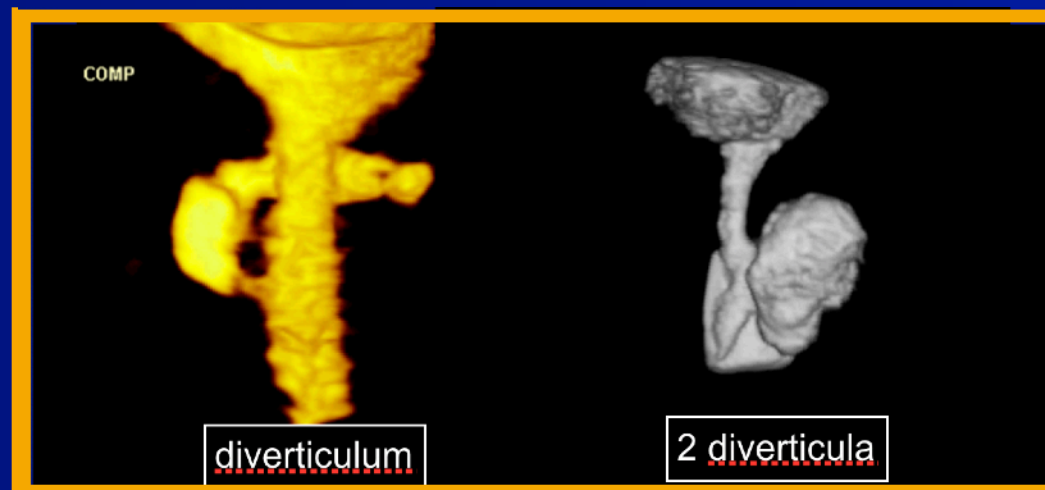
Pelvic Floor Sonography urethral diverticulum

such urethral
pathologies
we can recognize
with 2D and
3D technique

With 3D
technology
it looks great,
the imaging
can turn but
it takes a long
time to prepare
this picture and
you also need
experience with
image editing



2D technique

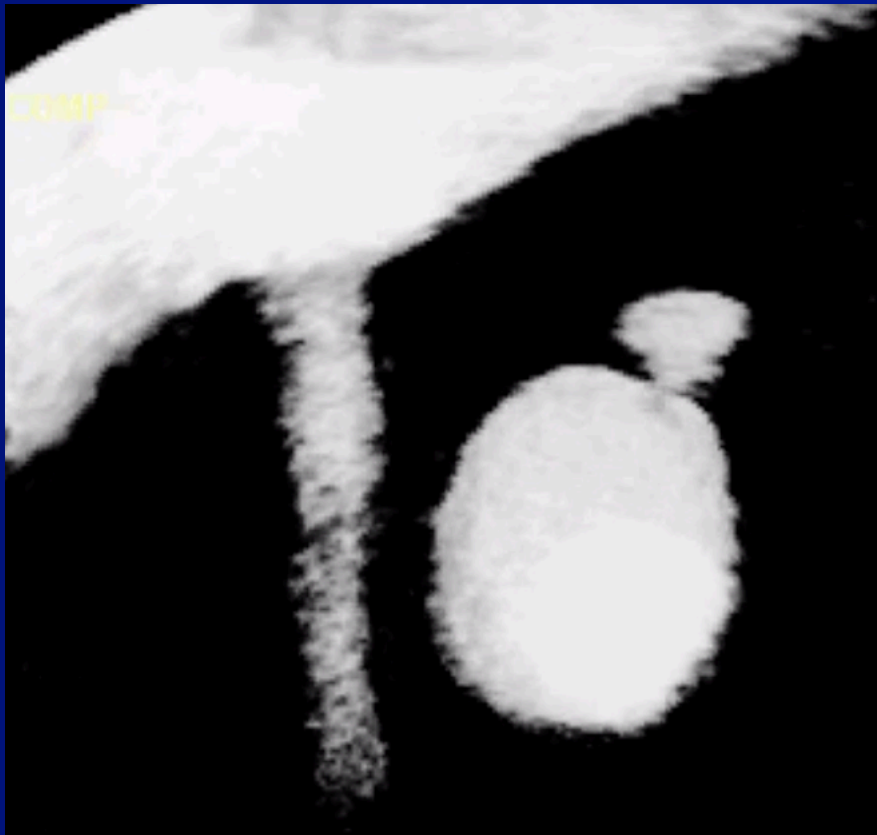


3D technique

Pelvic Floor Sonography

urethral diverticulum

differential diagnosis: suburethral cyst





With the color doppler we can confirm the presence of varicosis pre-rectally



On PFS imaging:
the anterior and posterior rectumwall
are parallel to each other.
No rectocele, no enterocele

Pelvic Floor Sonography

preoperative planning

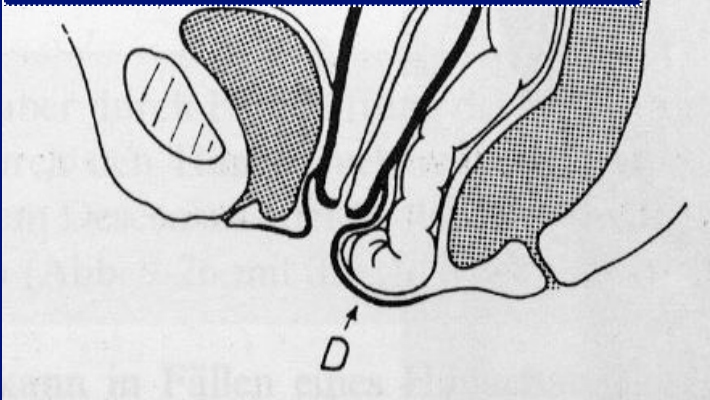


The varicosis bulges the posterior vaginal wall and leads to this clinical findings

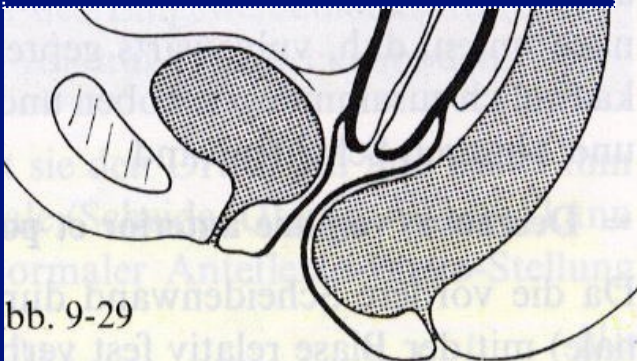
Pelvic Floor Sonography

preoperative planning

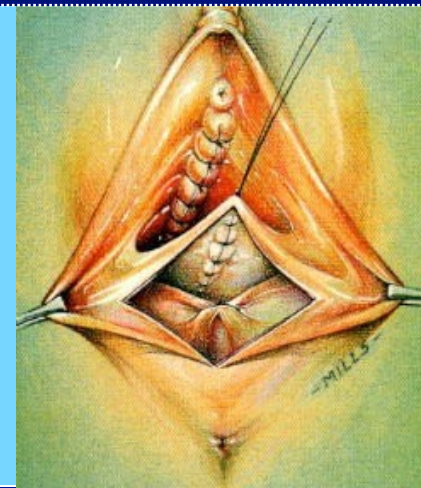
While an posterior enterocele would require a mesh repair



In the case of the rectocele we perform NTR technique

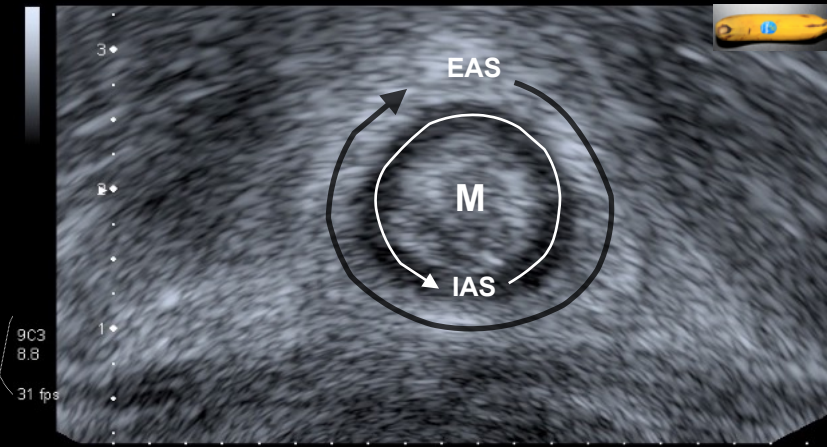


PFS helps us to decide:
mesh or no mesh



Pelvic Floor - Sonography

posterior compartment



The anal sphincter complex consists of:

- the hypoechoic IAS
- the hyperechoic EAS

and you see also a echogenic mucosa of rectum

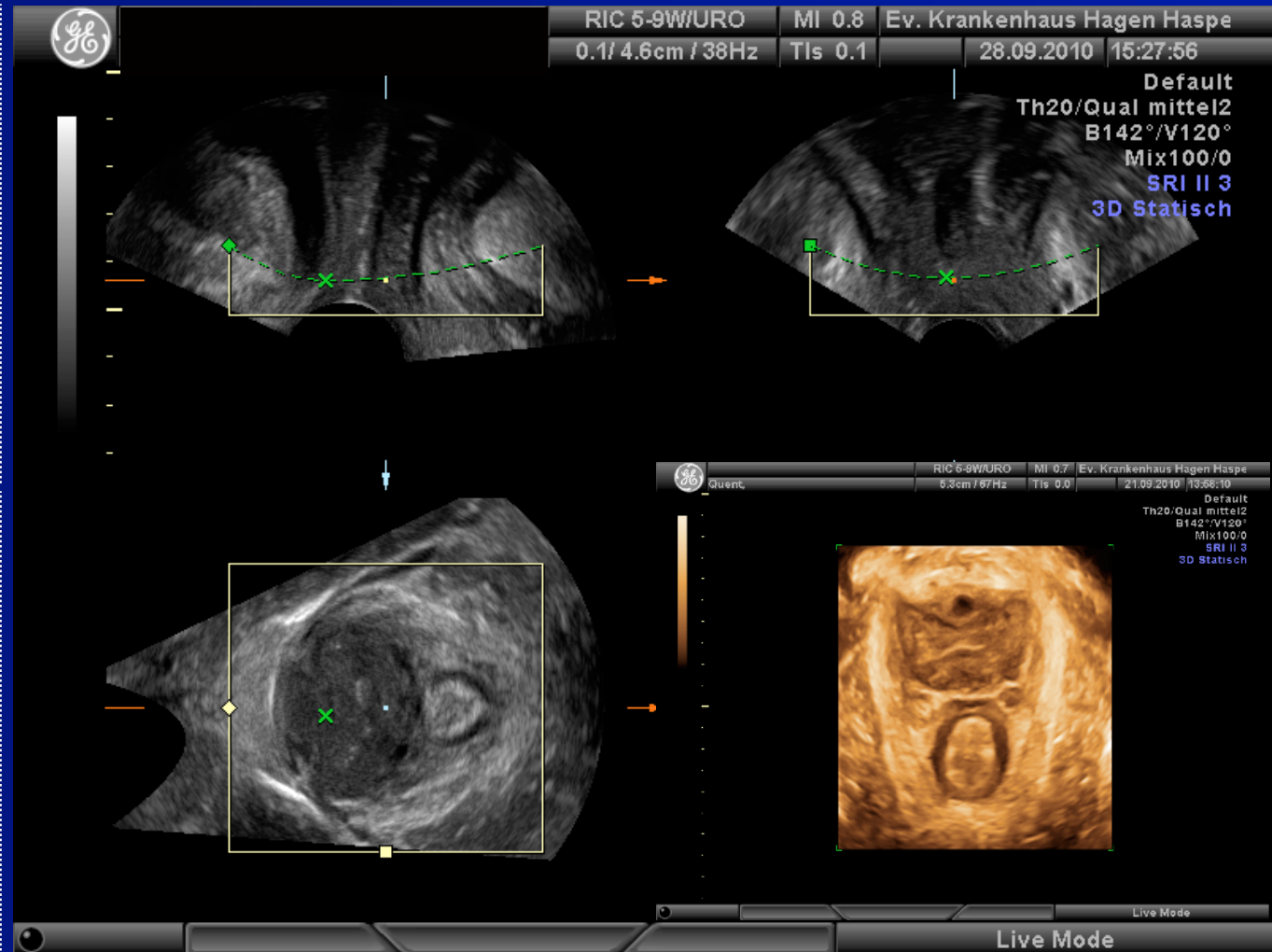
And when it becomes necessary,
we can examine simultaneously
under the ultrasound view rectally

Pelvic Floor Sonography

3 dimensional imaging

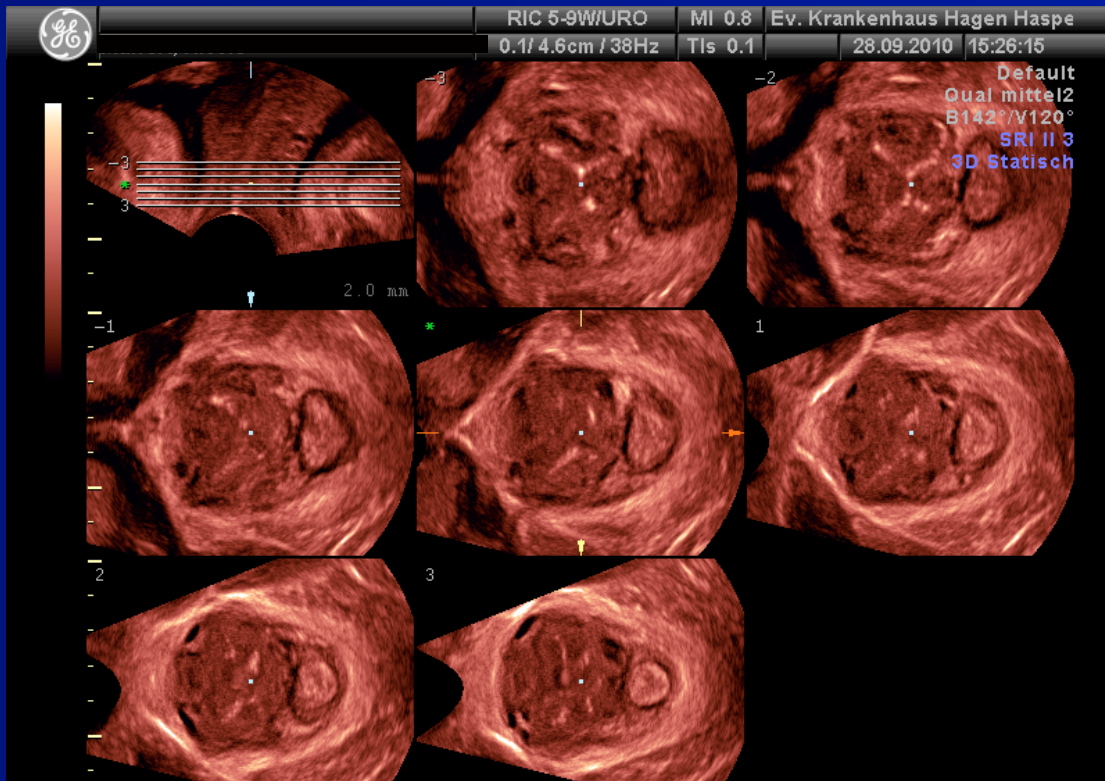
With PFS-TV we can represent three-dimensional image of the pelvic floor with 3 orthogonal views and with a rendered image

It allows imaging in the axial plane which is useful for assessing the integrity of the puborectalis muscle as well as the levator hiatus area



Pelvic Floor Sonography posterior compartment

Tomographic **U**ltrasound **I**maging = **TUI**



with tomographic ultrasound imaging we can analyze
several levels in one picture

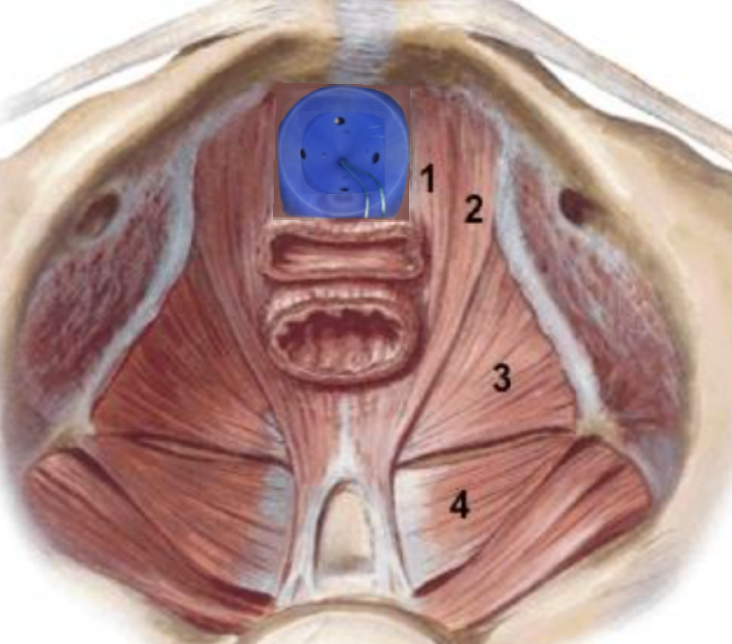
The concept of pelvic floor sonography



„ PF-Sonography is not everything
but
without PF-Sonography
is
everything nothing “

Tips and tricks of pessary treatment in daily routine





POP

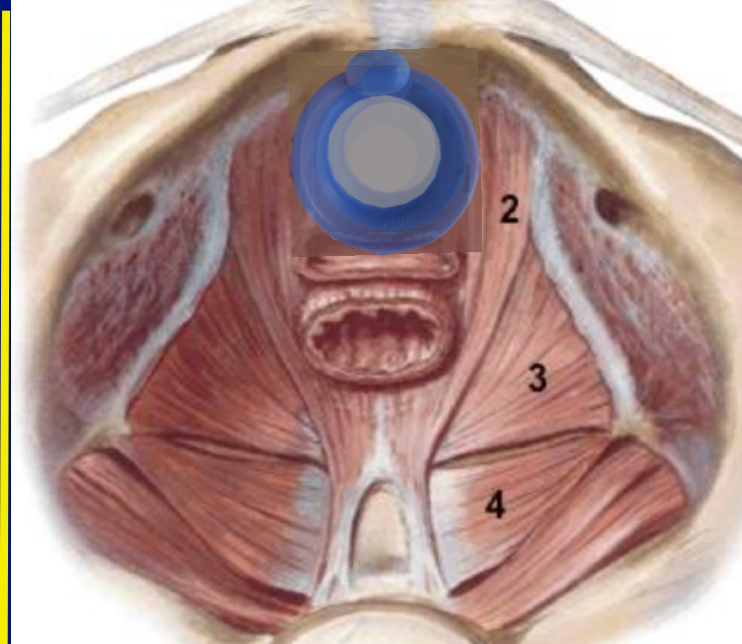
(big → small)



fixation

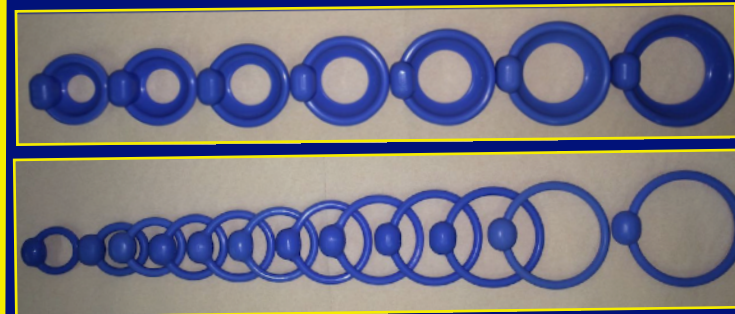
indications

size



Incontinence

(small → big)



Tips and tricks of pessary treatment in daily routine



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Tips and tricks of pessary treatment in daily routine

