

Philosophy of pelvic floor reconstruction

Prof.Dr.Dr.h.c.E.Petri
Greifswald





April 30th - May 4th, 2014

Titanic Deluxe Hotel, Belek - Antalya



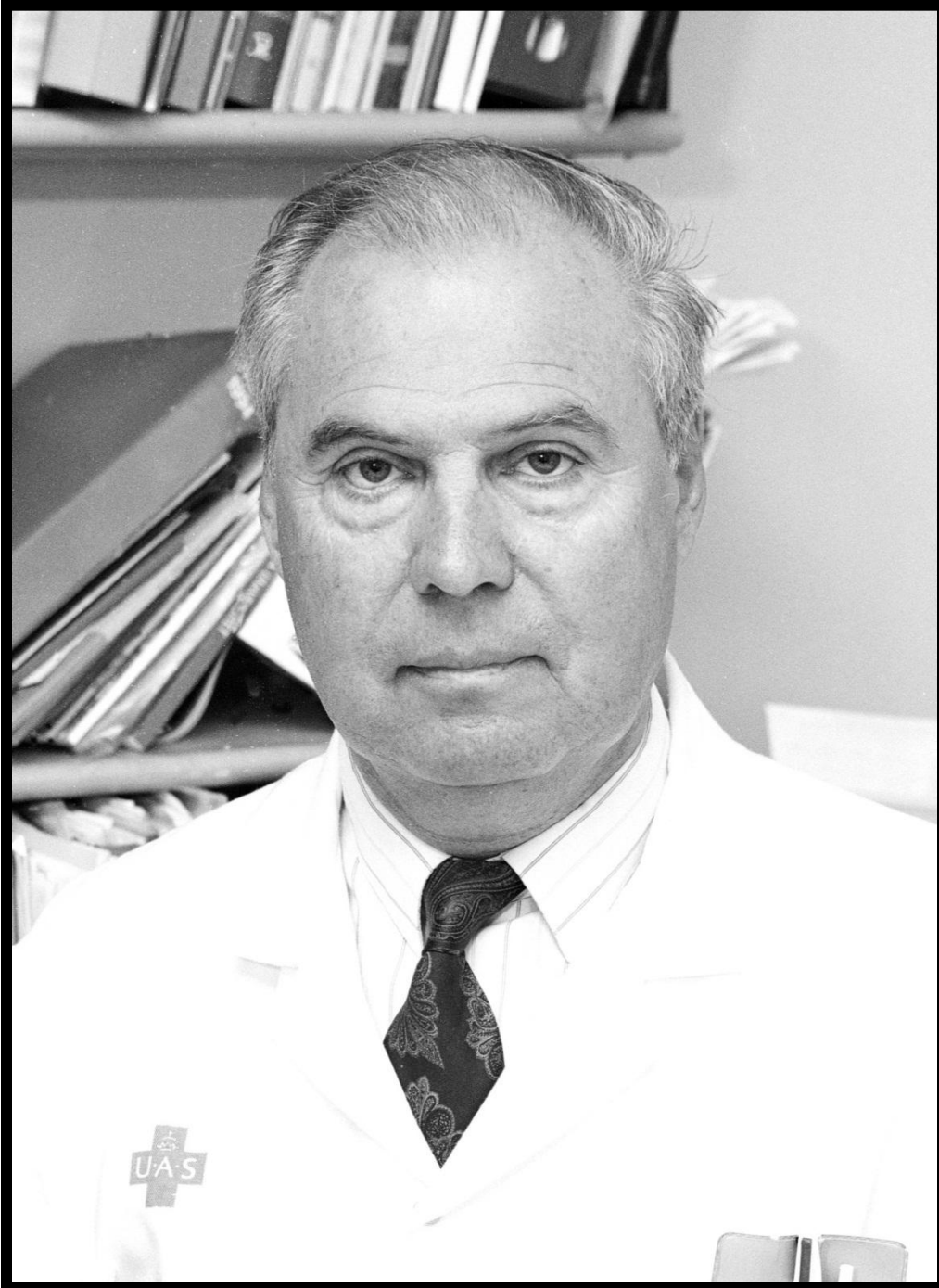
X TURKISH GERMAN GYNECOLOGY CONGRESS

www.tajev2014.org



TITANIC

DELUXE BELEK



**There is no
condition or
disease that
cannot be
made worse by
surgery !**

Why talk about the problem ...

10% of all women need surgical repair of pelvic floor disorders (J.O.L.DeLancey 2005)

there are app. 80 000 surgical interventions for incontinence or prolapse in Germany per year

app.30% are recurrences

**increasing number of revisions of complications –
increase in legal cases**

FDA – warning and recommendation

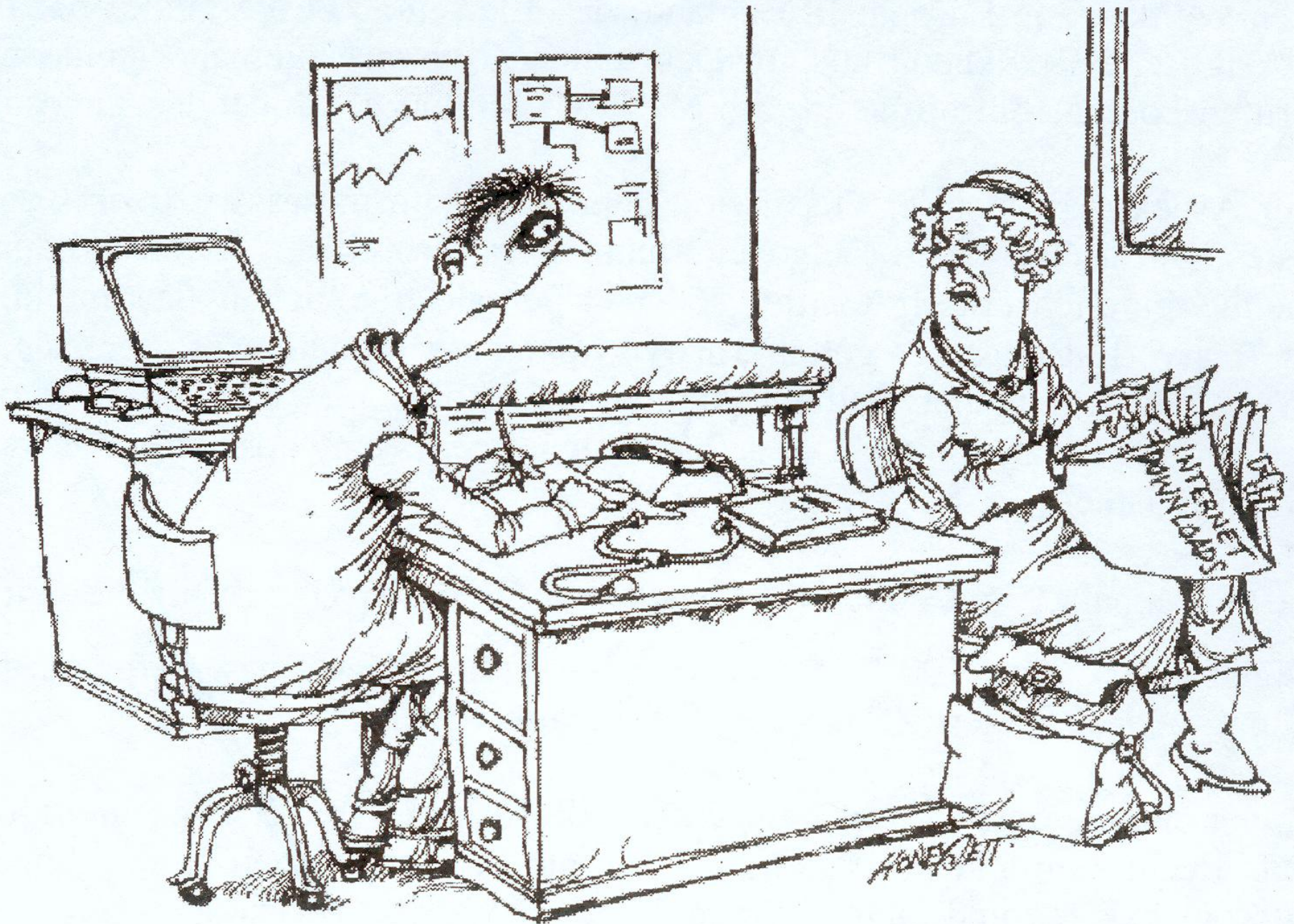
What are the expectations of our patients?

Robinson et al (Kings College Hospital London)2013

57 % are happy with a 60% improvement without side effects

38 % accept a minor procedure with a 85 % success rate
and a 2% risk of side effects
(e.g. self catheterisation)

23 % accept a major operation with a 85 % success rate
and a 2% risk of side effects
(e.g. self catheterisation)



"I'M SORRY DOCTOR, BUT AGAIN I HAVE TO DISAGREE."

**indication for surgery should
not be satisfaction of the
aesthetic views of the
surgeon, how a vagina should
look like !**

Surgical concepts in stress urinary incontinence

replacement of pubourethral fixation

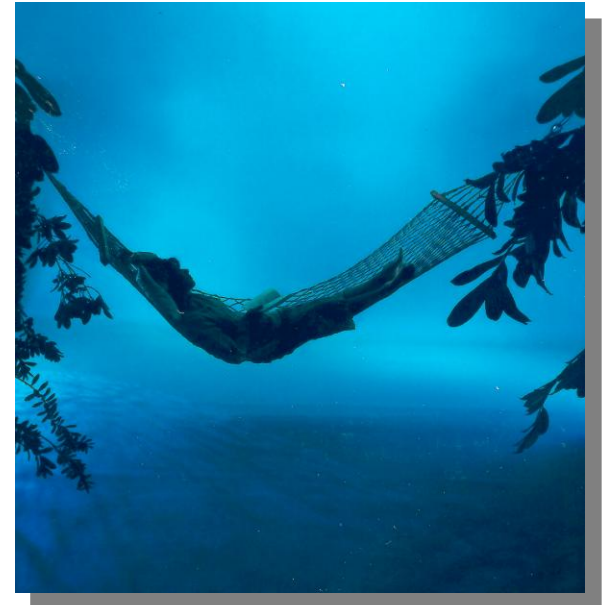
tension-free tapes

repositioning of the bladder neck into
the “abdomino-pelvic” balance
(pressure transmission)

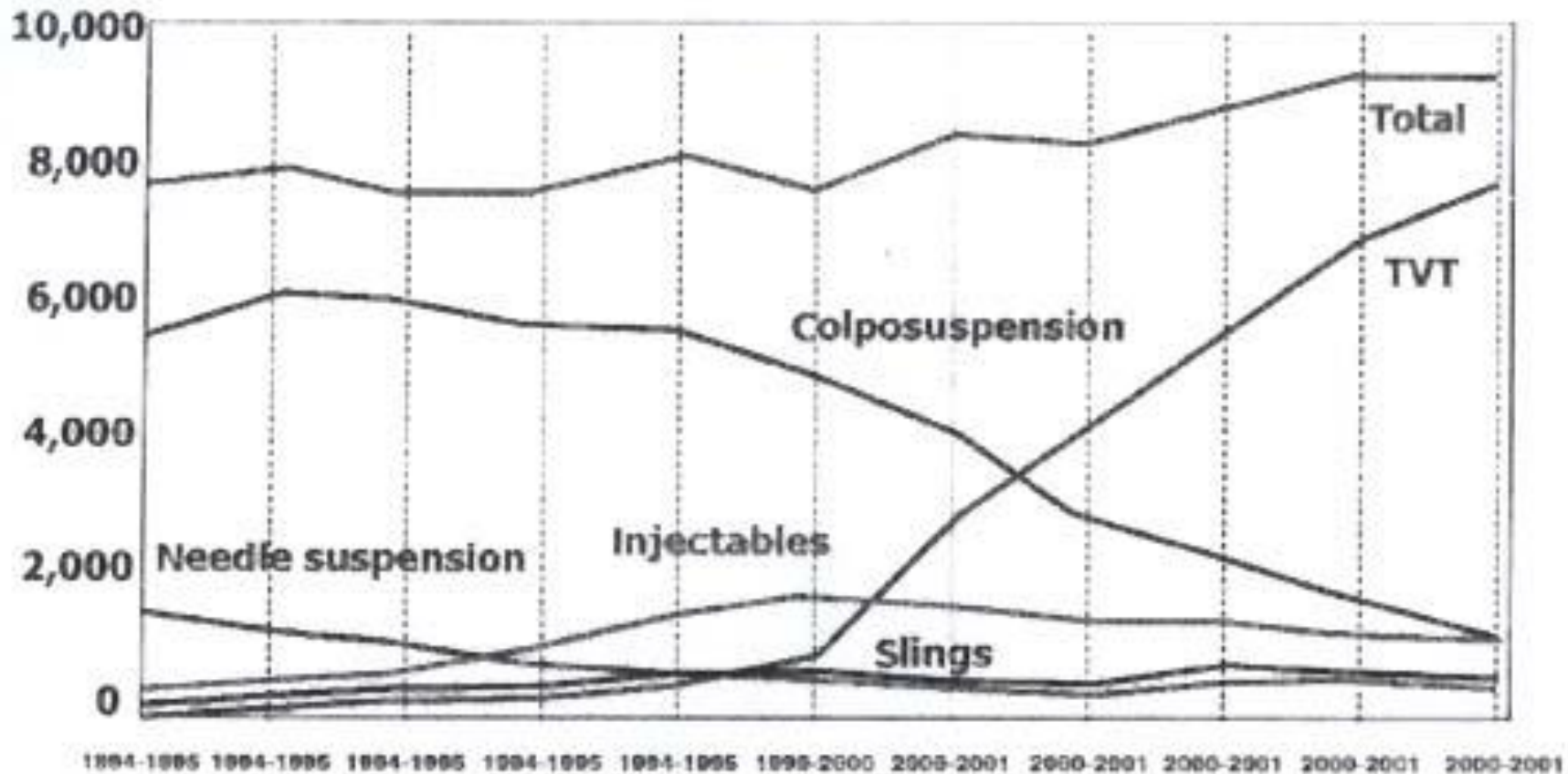
colposuspension, trad. slings

Improvement of coaptation

intraurethral injection



Hospital episode statistics 1994-2005

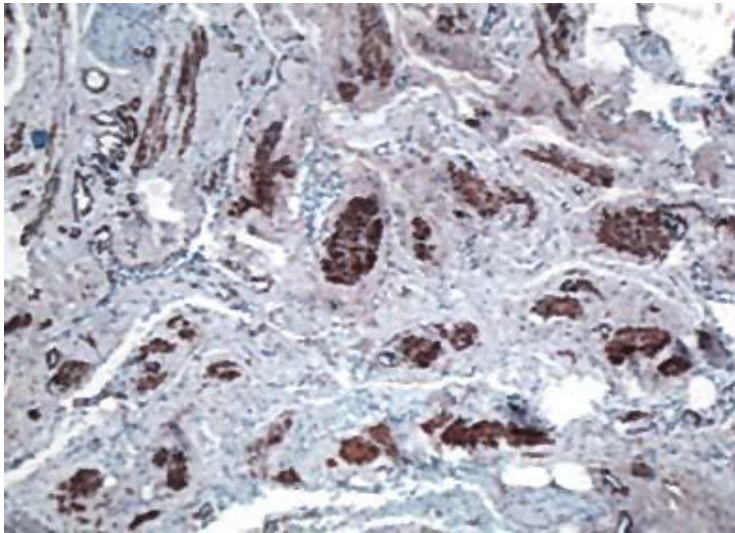
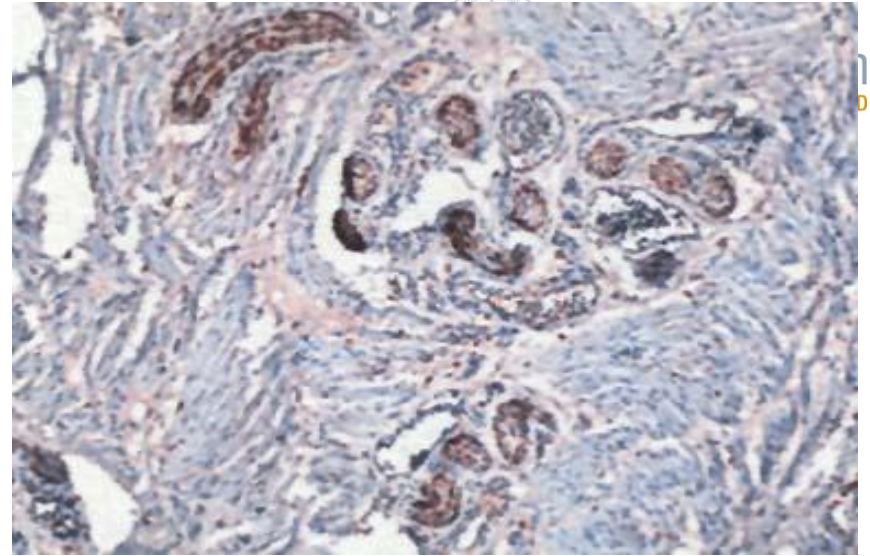
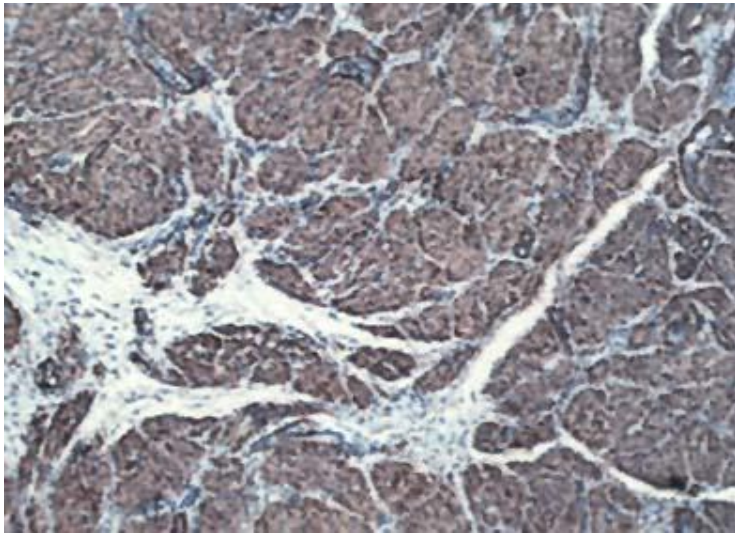


Department of Health – Hospital Episode Statistics
Ward & Hilton, ICS 2006

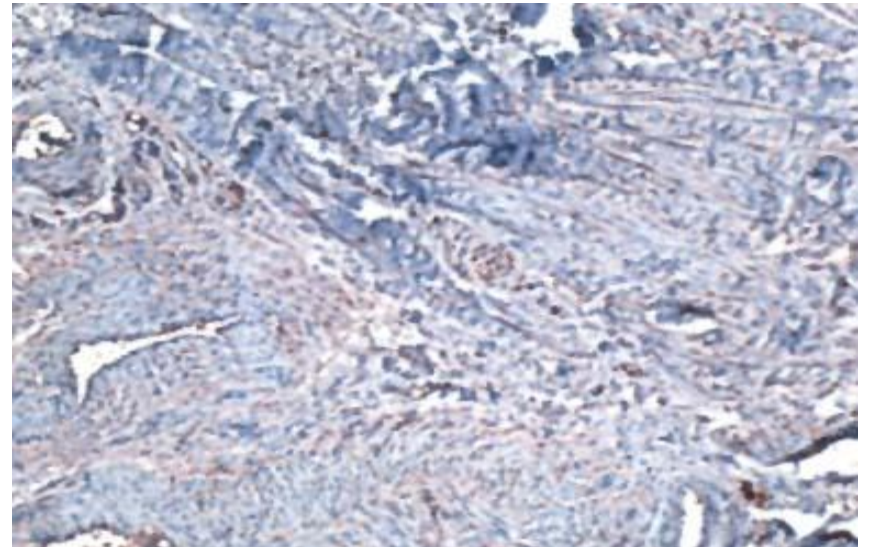
BCS = Burch colposuspension (item no. 37044). MIUS = midurethral sling (item no. 33377). † Item nos. 33002, 37042. ‡ Item no. 37043. † Item no. 37339.

the profit of companies is/was
unbelievable ...

Fast-food surgery
many types
easy to get
not necessarily good for your health



muscle- and nerve-density in healthy women and women with prolapse



PB Kaplan et al. Neurourology and Urodynamics 2011; 30:126-132



TABLE 1

Recent trainees' and program directors' perceptions of residents' abilities to independently perform procedures after graduation

Procedure	Ability to perform "on own"		P value ^a
	Recent graduate, % (n = 129)	Program director, % (n = 132)	
Pubovaginal sling ^b	13	28	.005
Retropubic midurethral sling	30	63	< .001
Transobturator midurethral sling	13	29	.003
Urethropexy ^b	33	62	< .001
Intraoperative cystoscopy ^b	72	88	.001
Cystotomy repair	53	79	< .001
Vaginal uterosacral vault suspension ^b	28	56	< .001
Sacrospinous ligament suspension	24	33	.126
Colpocleisis	26	31	.42
Abdominal paravaginal repair ^b	33	40	.22
Posterior colporrhaphy	77	90	.006
Anterior colporrhaphy ^b	79	89	.025
Rectovaginal fistula repair	17	21	.397
Anal sphincteroplasty	19	32	.027
Single-channel cystometry ^b	38	57	.003
Multichannel urodynamics	17	19	.761
Pessary fitting ^b	79	89	.025

^a χ^2 test of association.

^b Procedures for which the AUGS resident education objectives recommend the highest level of competence, "does."

Kenton. How well are we training residents in female pelvic medicine and reconstructive surgery? Am J Obstet Gynecol

ale
y?

enstein, MD;

ntly perform" nearly all listed RPS." Only 79% of could do a vaginal hysterectomy "on their own," PDs ($P = .002$).

perceptions of recently trained OGs of their ability are low and inconsistent with PD perceptions or discrepancy warrants further investigation to clarify reassess educational goals or improve surgical

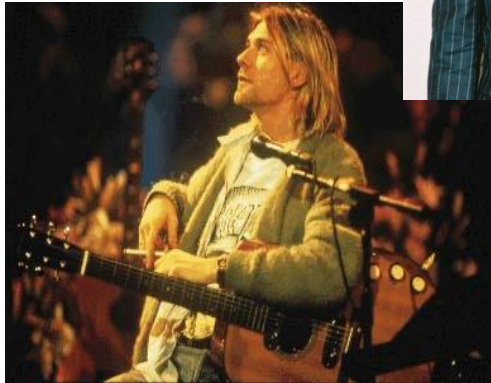
education, resident educational objectives,

le pelvic medicine and reconstructive surgery? Am J

anti-incontinence surgery from classics to pop and rock etc...



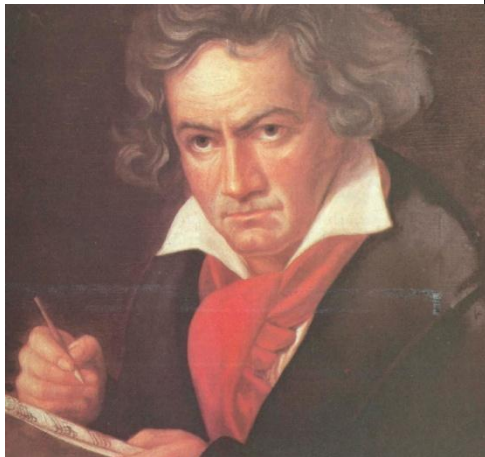
HIP-HOP – tissue engineering, injectables, Proact, radio frequency, IncontiLase, stem cells...



ROCK – TVT, mesh and mod.



POP – Burch, trad.slings

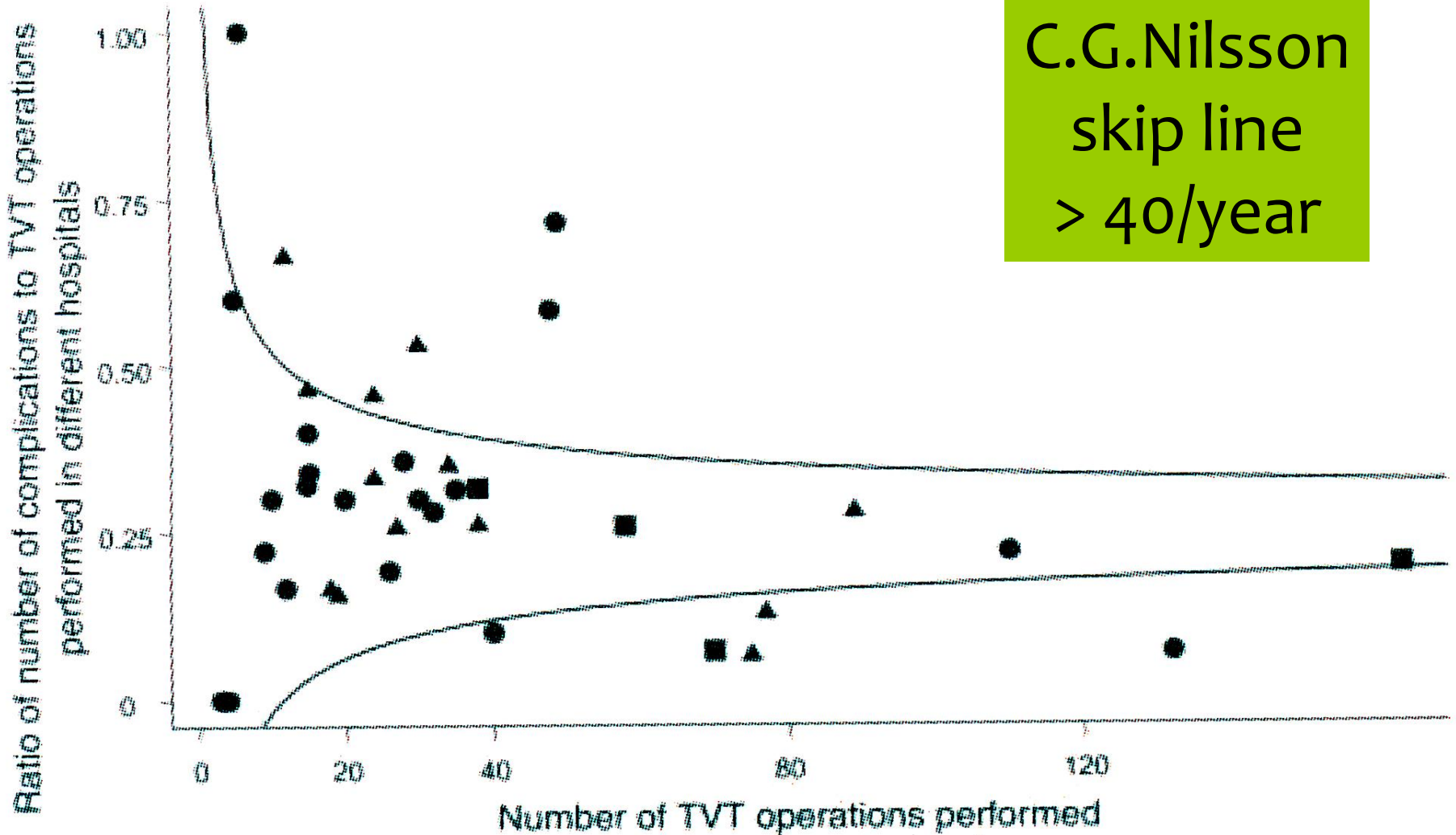


CLASSICS

– vaginal repairs, Amreich-Richter



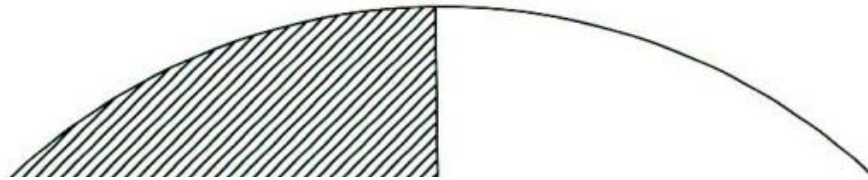
Close correlation between experience of the surgeon and the frequency of complications



same problem with slings and meshes...

The ensuing mesh kits that came on the market were attractive due to the simplicity involved in the placing of these, and—to put it bluntly—incompetent surgeons found themselves suddenly looking rather competent!





- Very satisfied
- Satisfied
- Neither nor

Int Urogynecol J (2013) 24:1265–1269

DOI 10.1007/s00192-013-2090-2

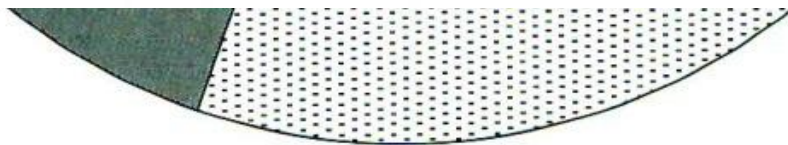
ORIGINAL ARTICLE: EDITORS' CHOICE

Seventeen years' follow-up of the tension-free vaginal tape procedure for female stress urinary incontinence

C. G. Nilsson · K. Palva · R. Aarnio · E. Morcos ·
C. Falconer

Received: 28 January 2013 / Accepted: 5 March 2013 / Published online: 6 April 2013

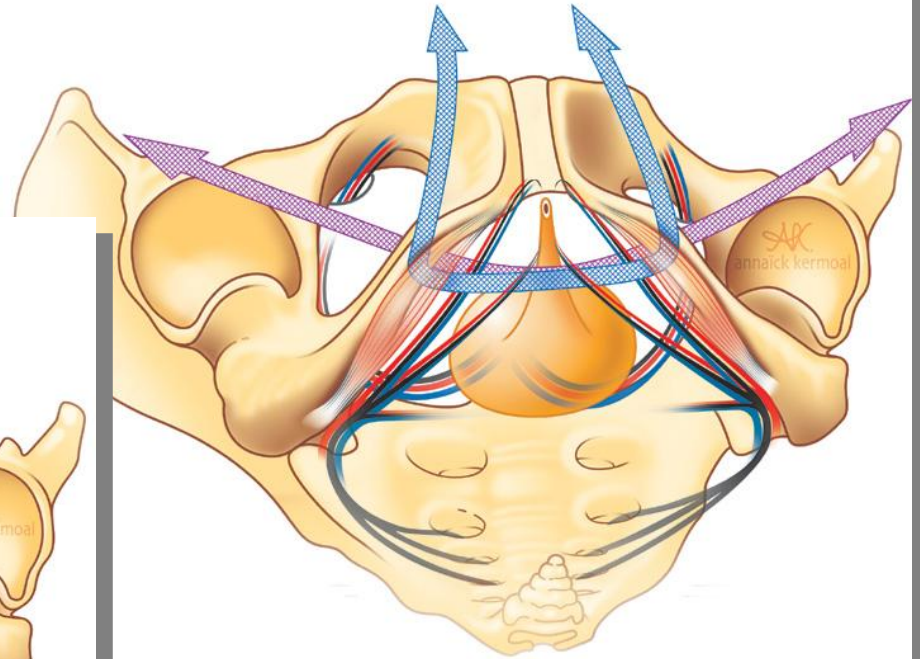
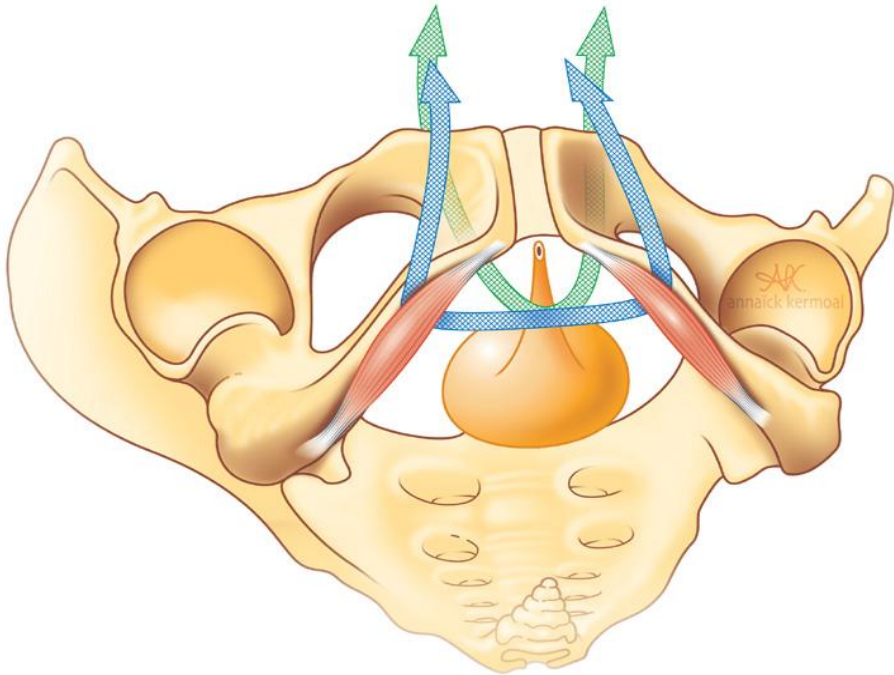
© The International Urogynecological Association 2013



111 WOMEN (11-941) WITH
urinary leakage at the
12-month follow-up

which direction ? short ? long ?

TVT P / TVT R

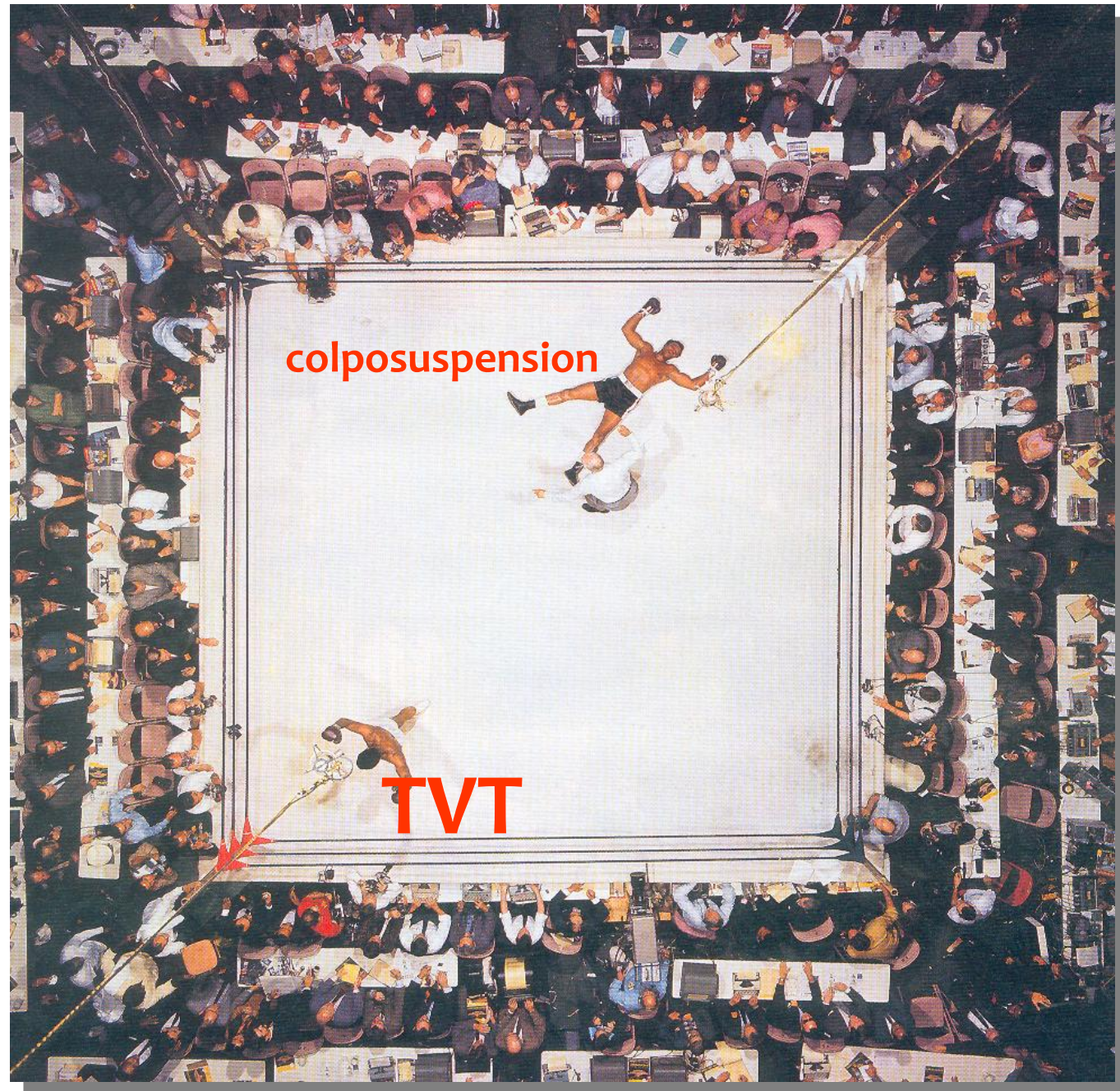


TVT P / TVT TO
inside-out ?
outside-in?

classical case – wrong indication and wrong technique



are
alloplastic
slings really
the solution
for all and
everything?

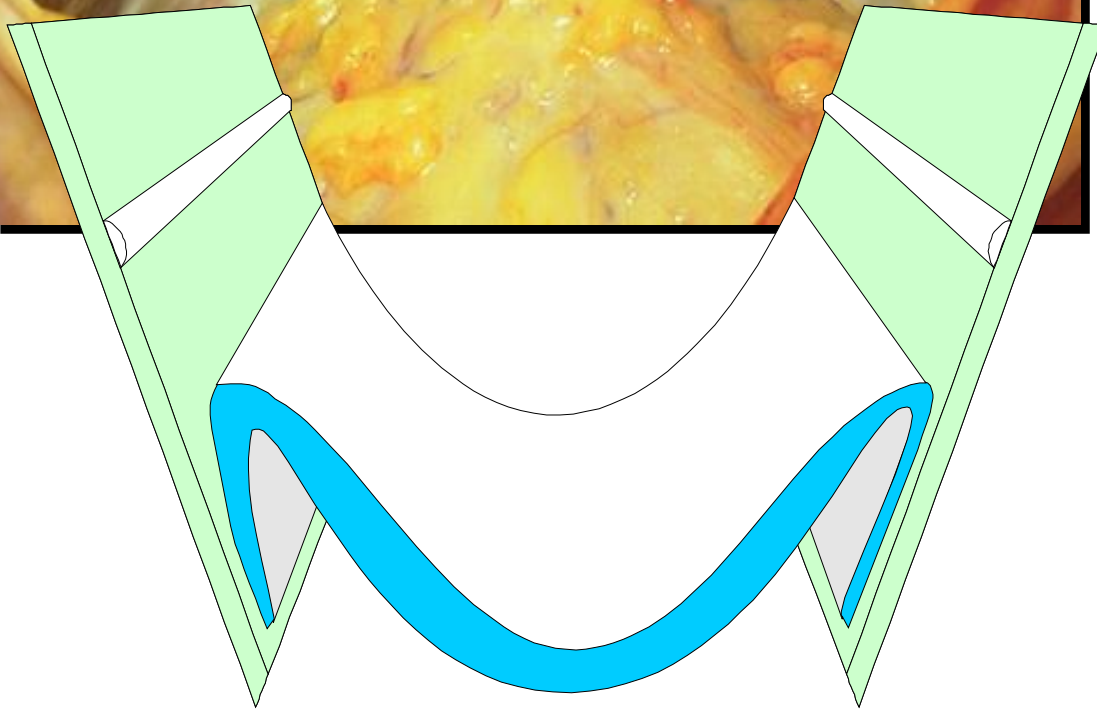
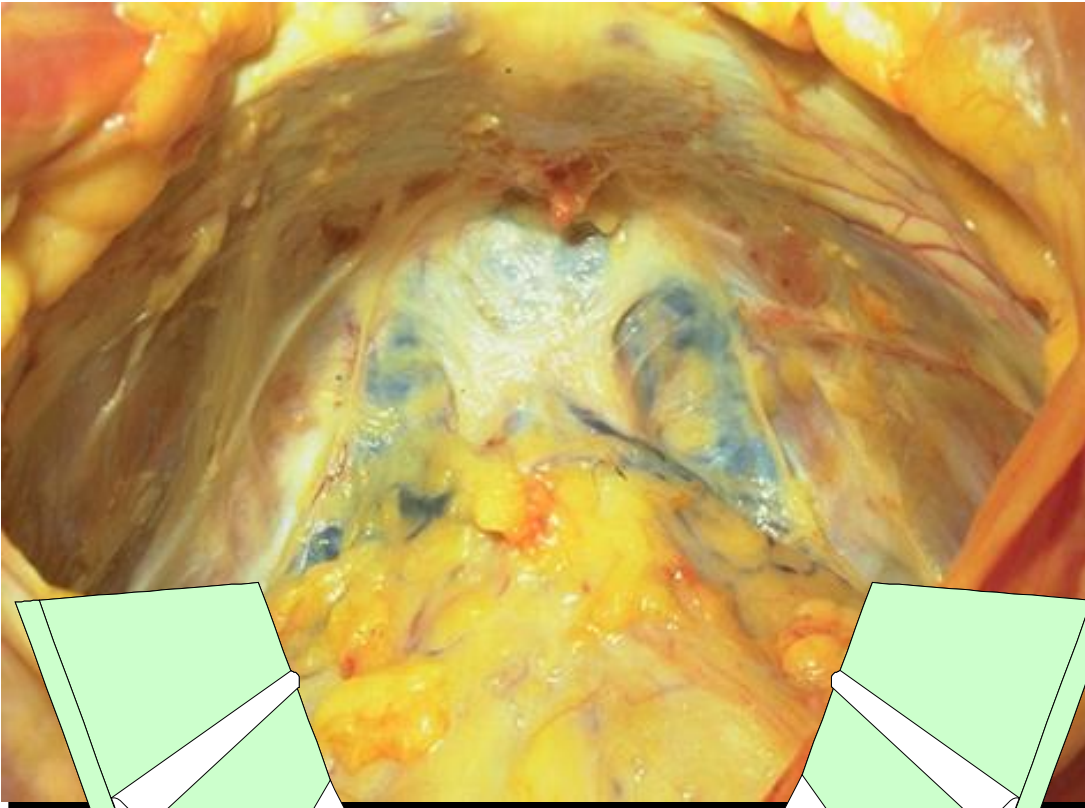


E. Petri

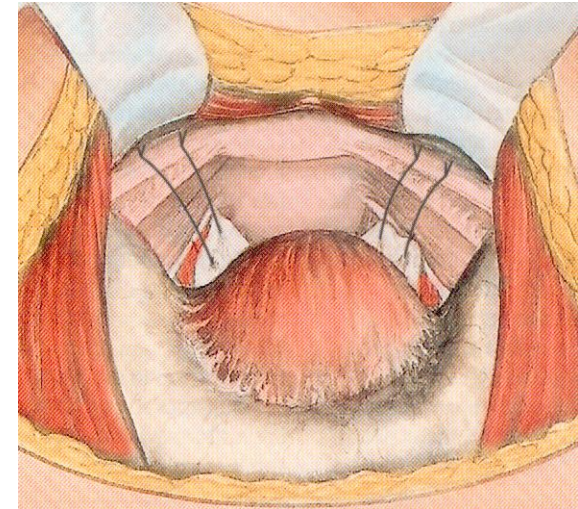
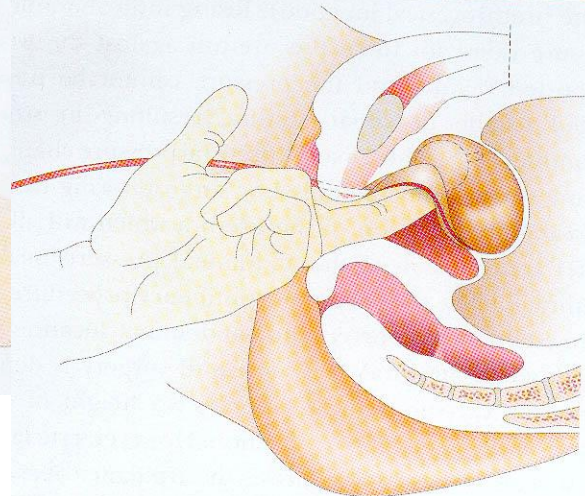
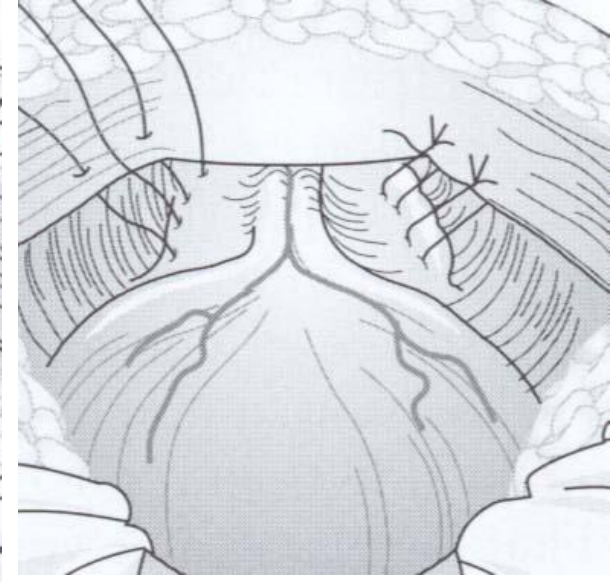
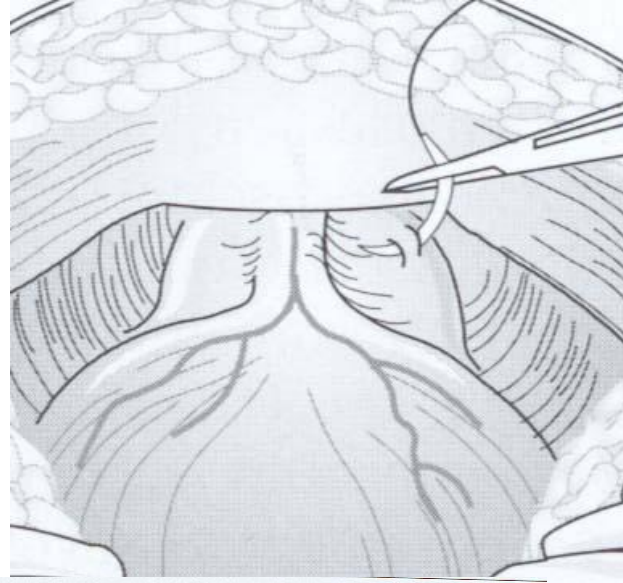
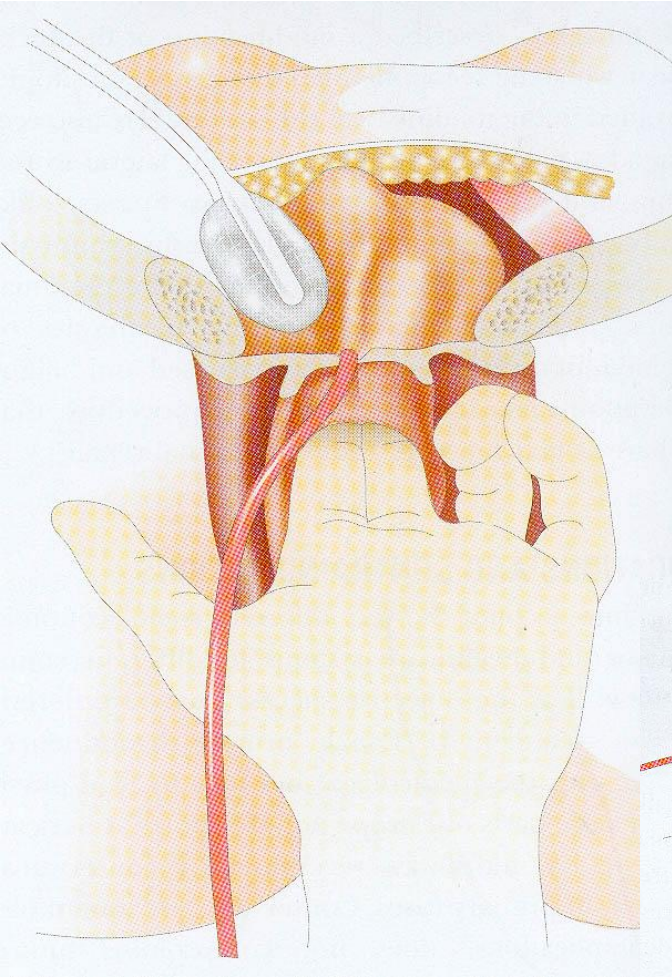
Retropubic cystourethropexy for the treatment of female sphincter incompetence

Abstract

Colposuspension has emerged as the “golden standard” for the surgical treatment of female urinary incontinence. With a lateral and tangential approach for the placement of the sutures, the rate of obstructed micturition and de novo urgency is low. Success rates of 85% for primary and 70–75% for recurrent incontinence can be achieved. In competition with the tension-free vaginal tape (TVT) procedure, colposuspension will remain the first choice for all laparotomies necessitated by other pathologies, in cases of paravaginal herniation as the cause of prolapse, and in women with unstable bladders caused by anatomical defects. The endoscopic approach has not yet gained general acceptance.



modified colposuspension - our technique



since 1978
> 4500 mod.colposuspensions



Int Urogynecol J
DOI 10.1007/s00192-012-1720-4

ORIGINAL ARTICLE

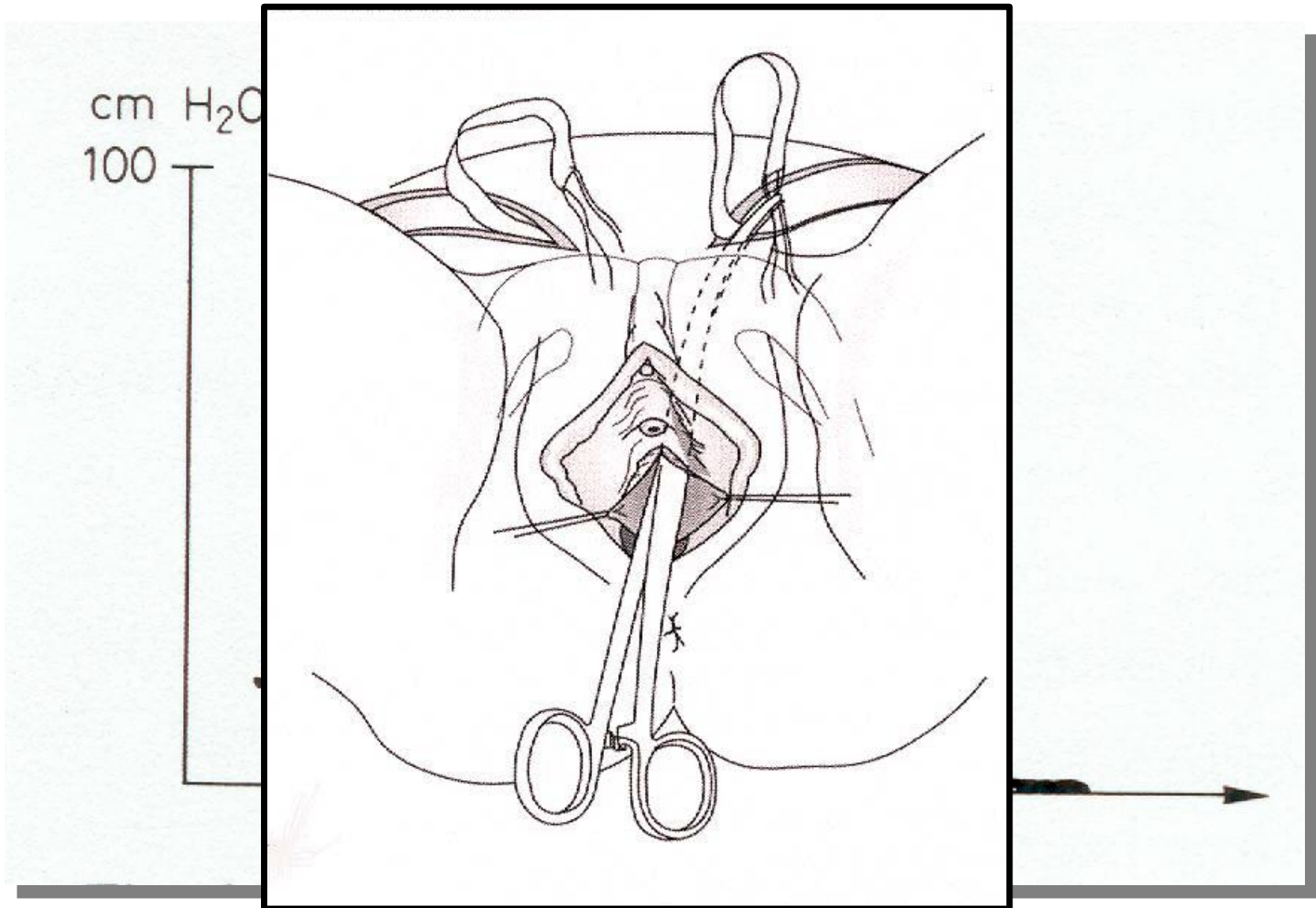
What do we do when a midurethral tape fails? Rediscovery of open colposuspension as a salvage continence operation

Ilias Giarenis • Heleni Mastoroudes • Linda Cardozo •
Dudley Robinson

Received: 2 October 2011 / Accepted: 9 February 2012
© The International Urogynecological Association 2012

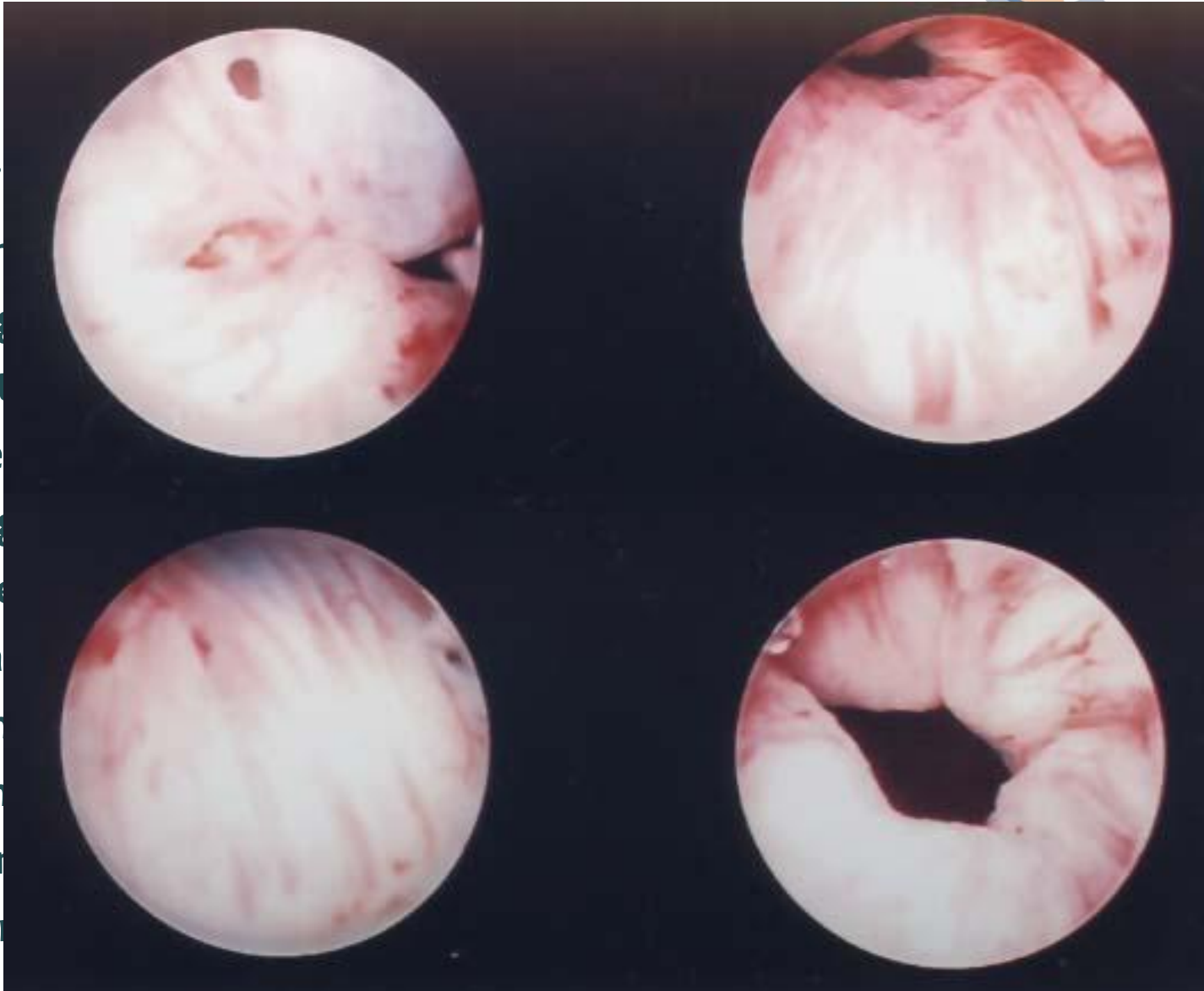
✓ 2

hypotonic urethra , ISD
“frozen urethra”, “tethered urethra”,
fistulae after alloplastic slings



intraurethral injection

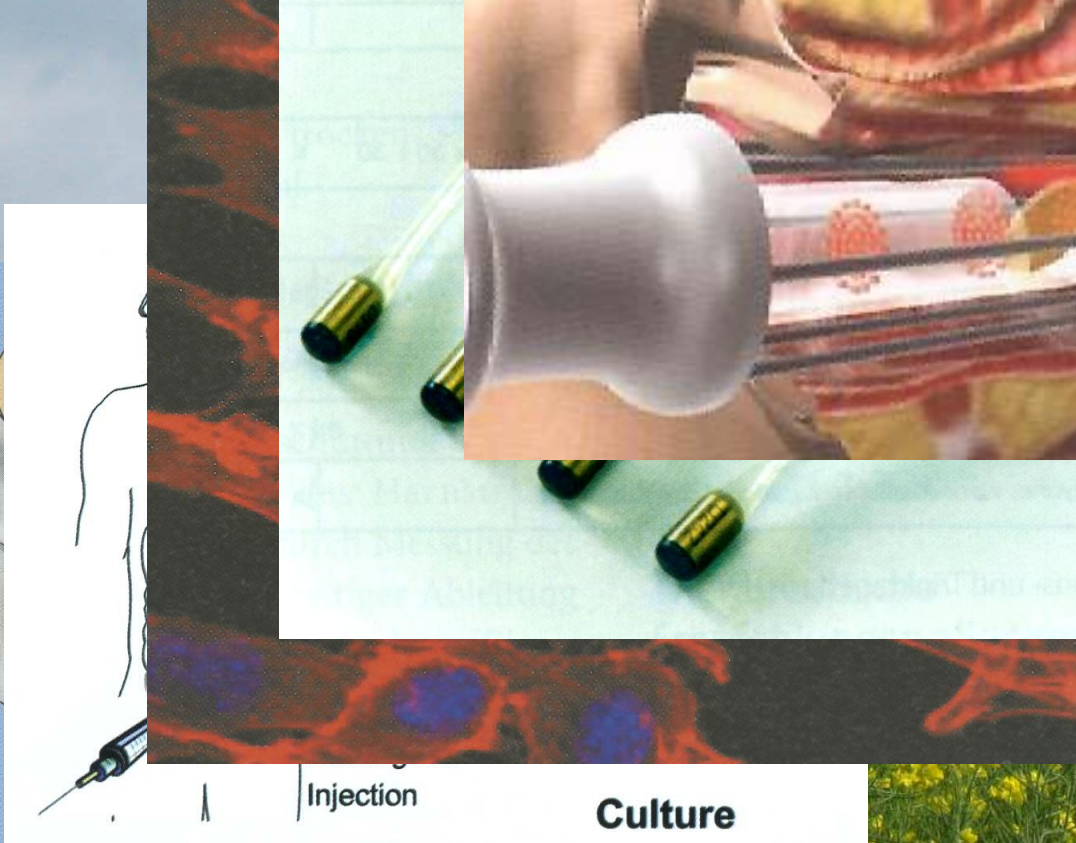
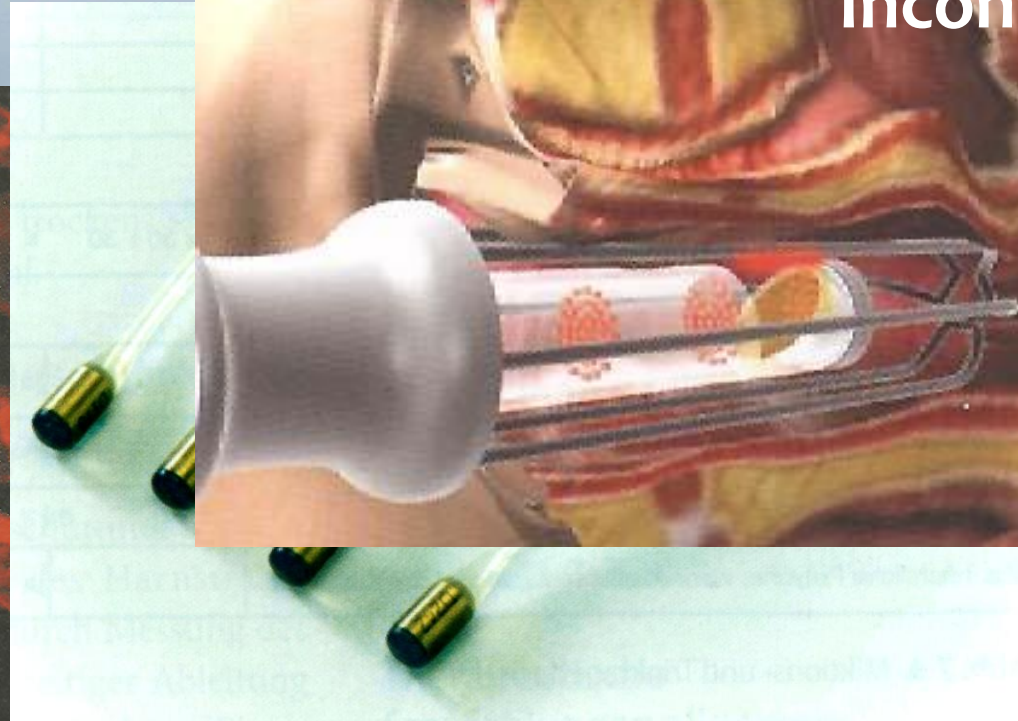
- paraffin
- sodium
- autolog
- Polytetrafluorethylen
- bovine
- autolog
- silicone
- Dextran
- Carbon
- Calcium
- Ethylen
- Polyacrylamid



3)

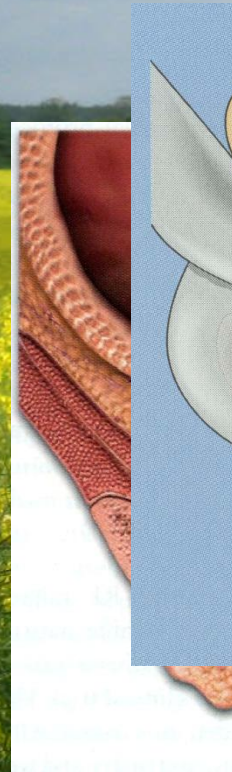
9)

„new“ techniques...



stem cells

HF collagen-modulation



Age specific rates of prolapse surgery within five years of hysterectomy

erus ...

2500 r Within 5 years after hysterectomy

AUGS PAPERS

www.AJOG.org

Pelvic organ prolapse surgery following hysterectomy on benign indications

Daniel Altman, MD, PhD; Christian Falconer, MD, PhD; Sven Cnattingius, MD, PhD; Fredrik Granath, PhD

OBJECTIVE: The objective of the study was to determine the risk for pelvic organ prolapse surgery attributed to hysterectomy on benign indications

STUDY DESIGN: In a nationwide longitudinal study, 162,488 women with hysterectomy from 1973 through 2003 were matched to 470,519 population-based control women. Hazard ratios (HR) with 95% confidence interval (CI) were calculated using Cox regression analyses.

RESULTS: In all, 3.2% (n = 5270) of women with hysterectomy had pelvic organ prolapse surgery, compared with 2.0% (n = 9437) in nonhysterectomized controls. Compared with nonhysterectomized controls, the overall HR for prolapse surgery was 1.7 (95% CI, 1.6 to

1.7) with the highest risks observed in women having had a vaginal hysterectomy (HR 3.8; 95% CI, 3.1 to 4.8). Compared with hysterectomized women with no vaginal births, the HR for prolapse surgery was 2.0 (95% CI, 0.9 to 4.1) among women with 1 vaginal childbirth and 11.3 (95% CI, 6.0 to 21.1) among women with at least 4 vaginal births.

CONCLUSION: Hysterectomy is associated with an increased risk for subsequent pelvic organ prolapse surgery with multiparous women at particular risk.

Key words: cohort, hysterectomy, prolapse, risk

Cite this article as: Altman D, Falconer C, Cnattingius S, et al. Pelvic organ prolapse surgery following hysterectomy on benign indications. Am J Obstet Gynecol 2008;198:572.e1-572.e6.

An anatomical dissection of the female pelvic floor. The levator ani muscle is visible as a broad, fan-shaped muscle covering the pelvic inlet. The urethra is seen passing through the levator ani. The surrounding tissues, including the pelvic floor and the lower part of the vagina, are also visible.

What is unimportant !

the degree of prolapse

cms in POPQ

singleton urodynamic parameters

What is important ?

subjective complaints of the patient

tissue quality (urogenital aging ?)

paravaginal defect

associated pathology

surgical techniques for correction of prolapse

A. abdominal

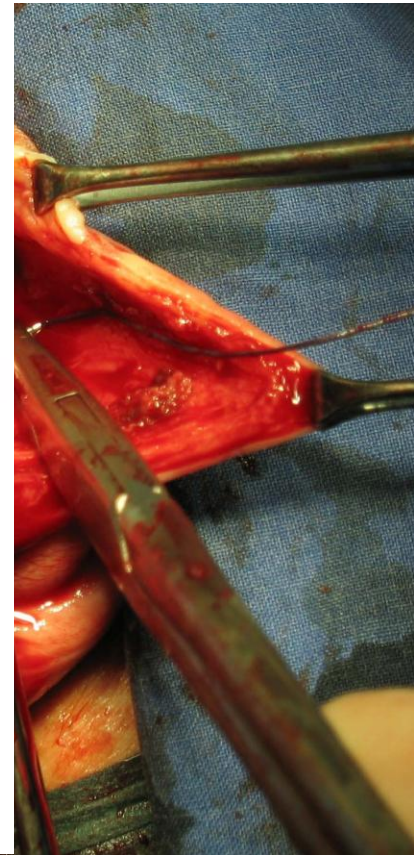
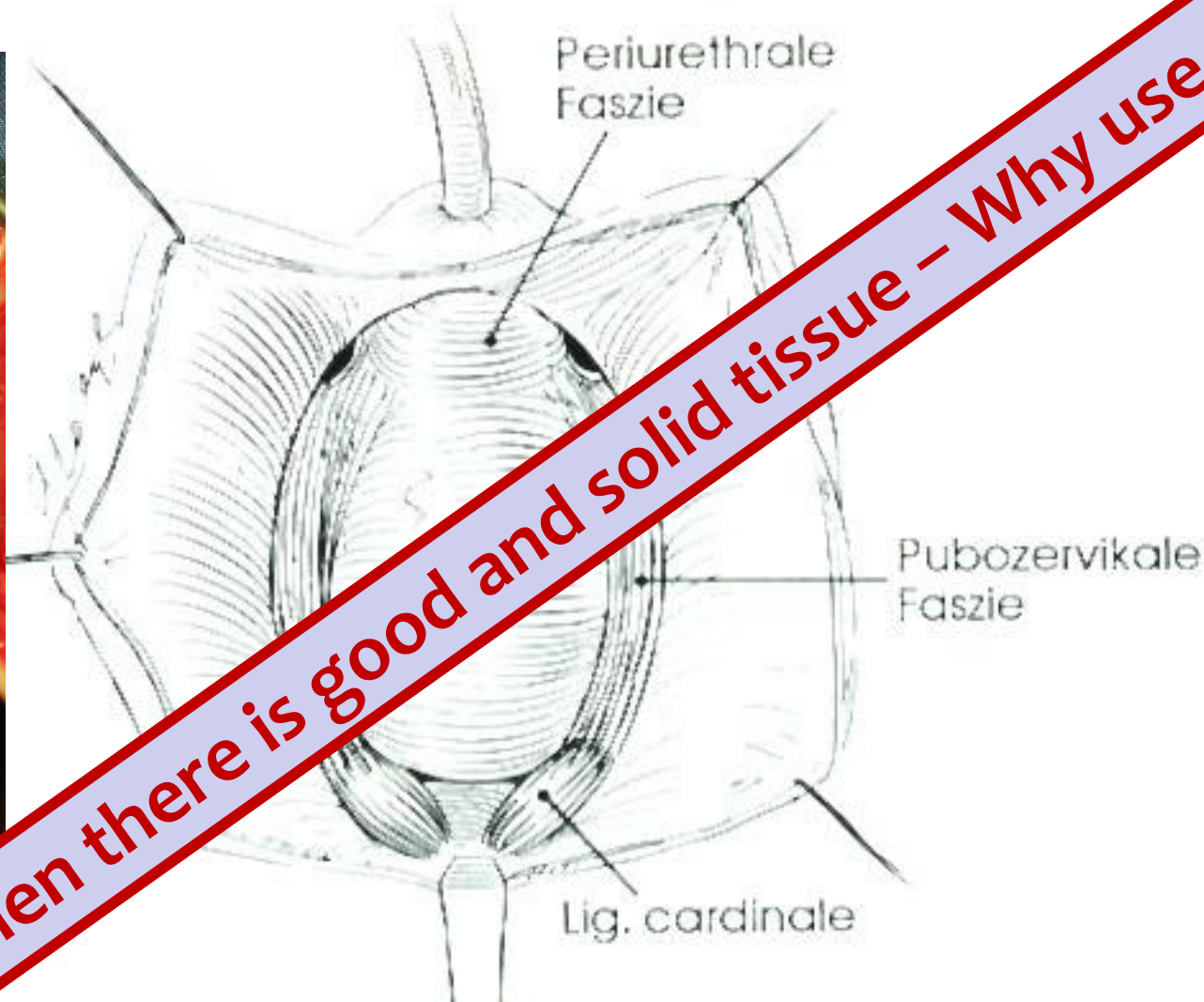
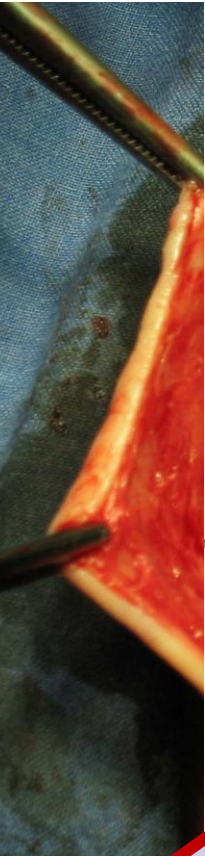
1. sacrocolpopexy
2. robotic-assisted laparoscopic sacrocolpopexy
3. fixation of the fascia at the rectus abdominis (Williams Operation)

B. vaginal

1. sacrospinous fixation
2. alloplastic meshes
3. ileococcygeal fixation
4. levatorplasty
5. colpocleisis (Le Fort , Döderlein)



our anterior repair...



When there is good and solid tissue – Why use meshes?

Actual Cochrane Review anterior compartment +/- Mesh

40 studies (RCT) with 3954 patients

With mesh better anatomical reconstruction

BUT: 10 % mesh-erosions

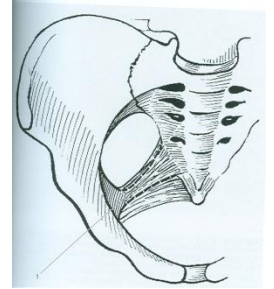
AND: there is no difference in subjective outcome, quality of life, de novo dyspareunia, stress urinary incontinence and rate of re-operations

Posterior compartment

Posterior repair with autologous tissue without insertion of a mesh has a success rate of 86% and remains a good option in the primary situation (LOE 1b).

Actually there is no reason to use non-absorbable meshes **routinely** in primary vaginal prolapse surgery in the posterior compartment, taking in account the **higher complication rates** (LOE 2).

vaginal apex vaginal approach



Sacrospinous fixation (without alloplastic material)

Success rates apex:	92%
Failure anterior compartment (cystocele):	21%
Failure posteriopr compartment (rectocele):	6%

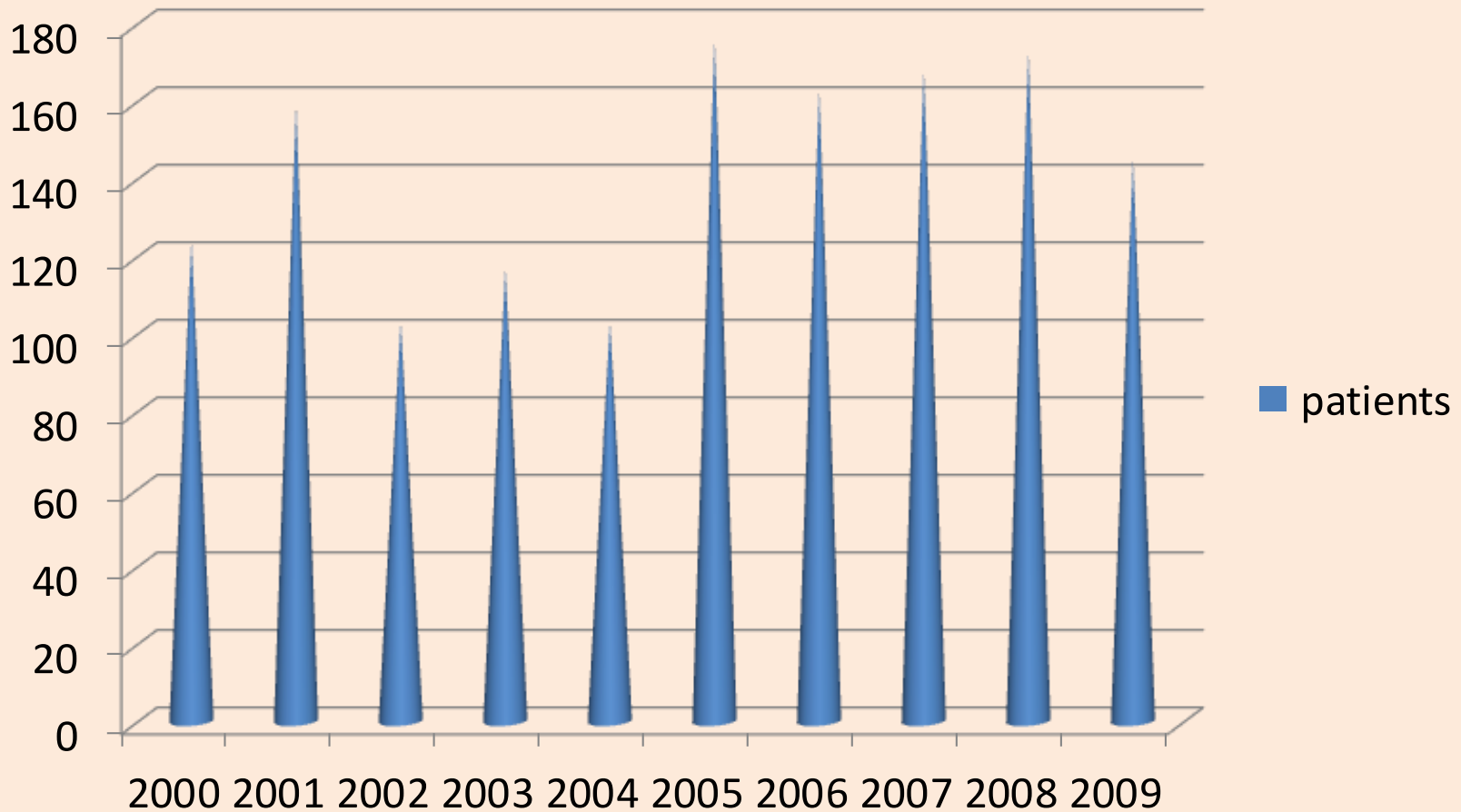
Sacruterine ligament fixation - McCall

Success rate apex	96%
-------------------	-----

sacrospinous fixation for prolapse

(n= 1483 /10 yrs.)

patients



abdomina

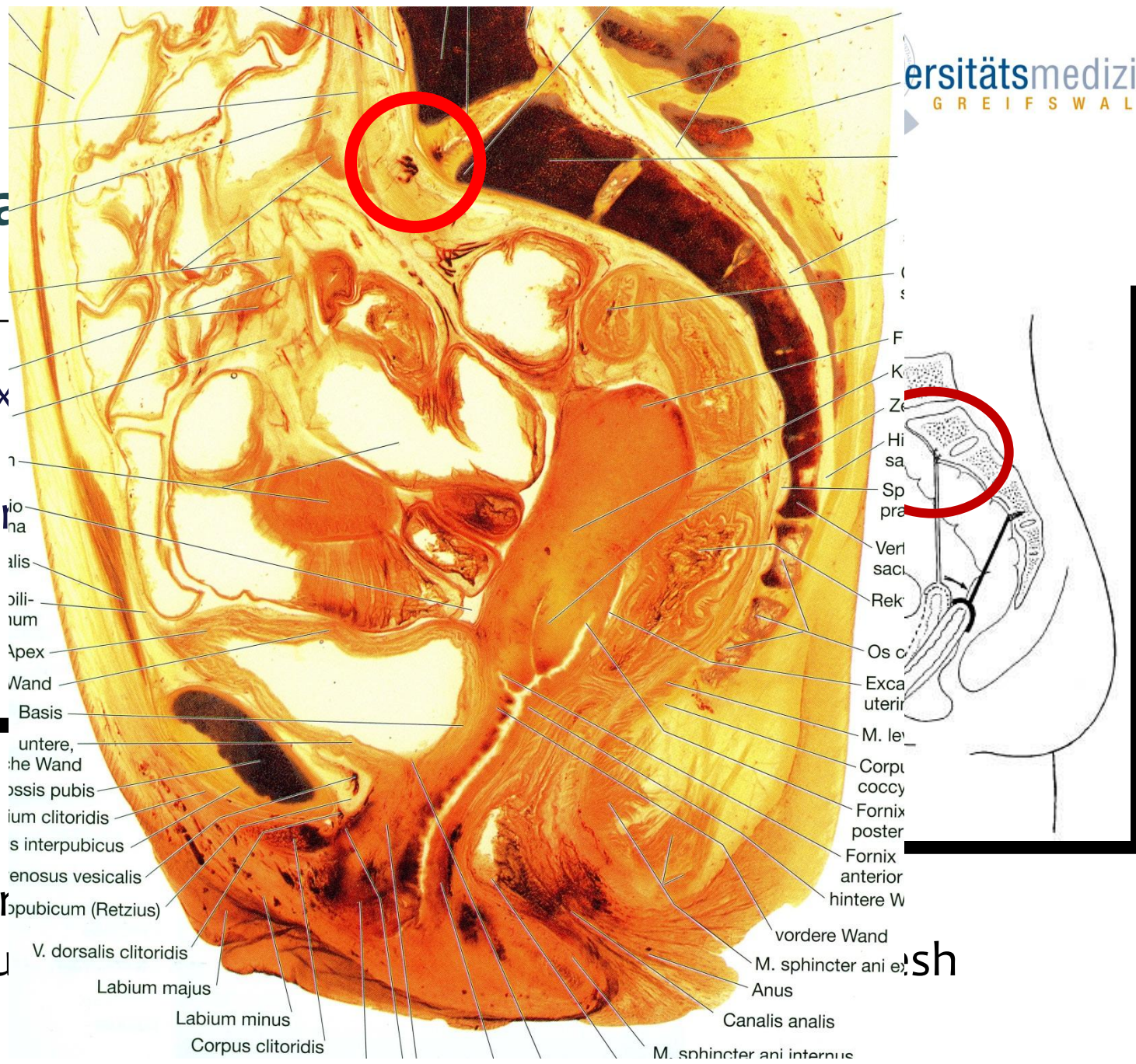


place of fix

promontor

S 1

S 2-4



- io
- na
- alis
- illi-
- ium
- Apex
- Wand
- Basis
- untere,
- the Wand
- ossis pubis
- ium clitoridis
- s interpubicus
- enosus vesicalis
- ppubicum (Retzius)
- V. dorsalis clitoridis
- Labium majus
- Labium minus
- Corpus clitoridis

- F
- K
- Z
- Hi
- sa
- Sp
- pra
- Verl
- saci
- Rek
- Os c
- Exca
- uteri
- M. lev
- Corpu
- coccy
- Fornix
- poster
- Fornix
- anterior
- hintere W

sh

but: higher
venou

- vordere Wand
- M. sphincter ani ex
- Anus
- Canalis analis
- M. sphincter ani internus

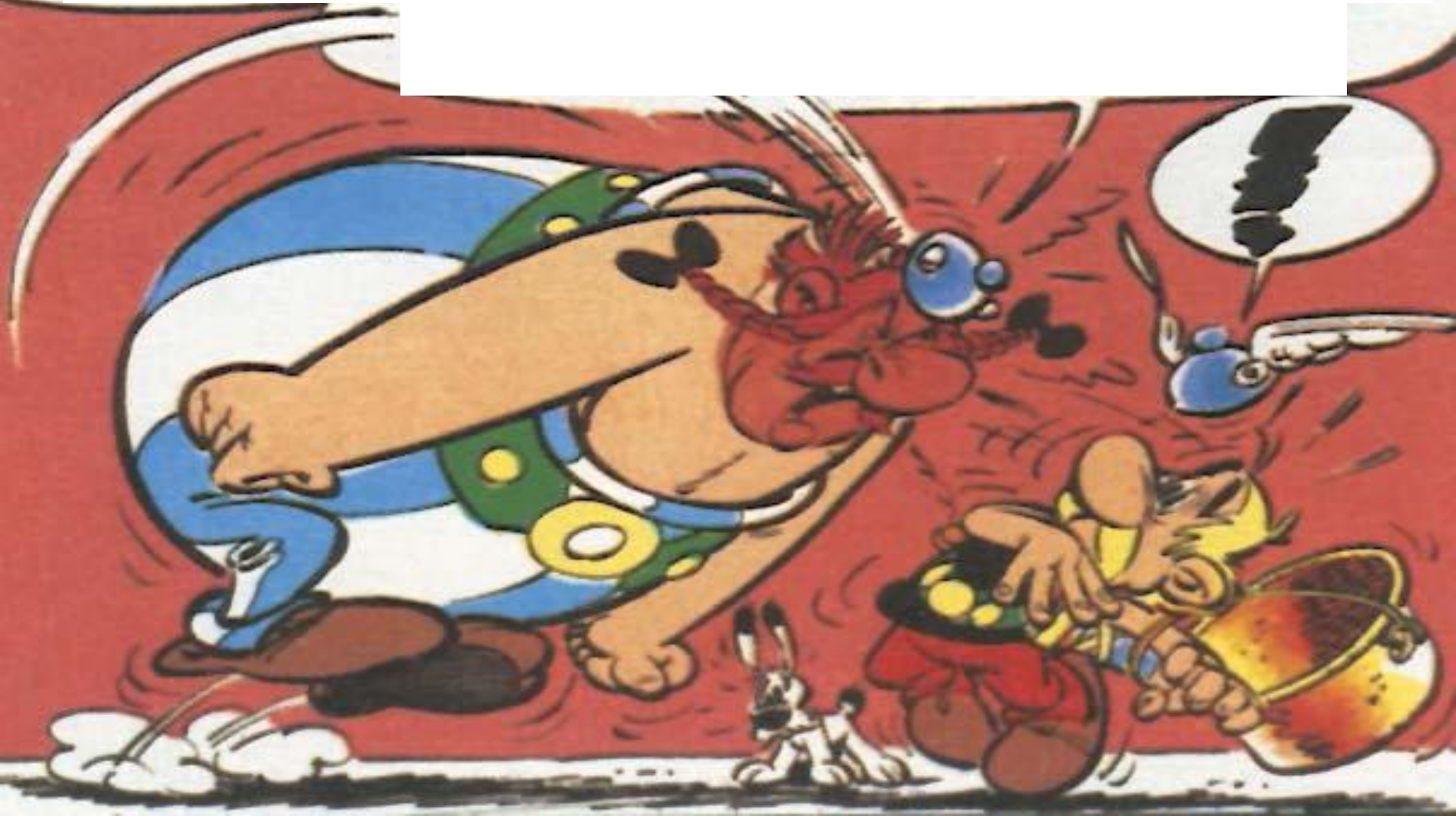


robotic-assisted laparoscopic sacrocolpopexy

t
C
“
p
o
s
t
t
f
v
r



**AND WHAT IS THE MESSAGE ?
HOW ABOUT THE MESSAGE...?!**



Own concept

- SUI without serious descent : TVT/TOT
- SUI with paravaginal defect: colposuspension
- primary prolapse : native tissue repair
- prolapse : sacrospinous fixation
- recurrent prolapse : abdominal colpopexy
- multiple recurrency : mesh
- SUI + prolapse : two step procedure
- multiple failures : intraurethral injection

Tab
and

USA
shoe

Wha
5.5; €
5.5; €
5.5; €

USA
shoe

Wha
5.5;
5.5;
5.5;

rPFM
perc

0302-2

nts

(V)
n

(V)

5th

1.046

training for the
pelvic floor
musculature





