

26-29 November 2014

# II Annual Meeting



Nîmes • France

POP and occult SUI: when to do what ?

Brigitte Fatton

Urogynecology unit

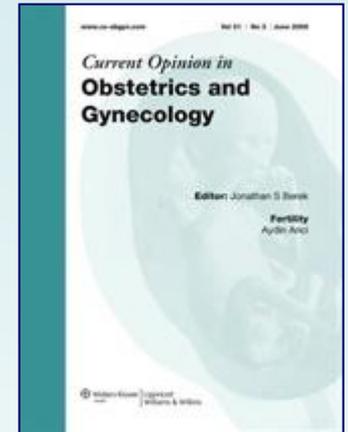
University Hospital of Nîmes

# POP and UI:..... A current issue

## Associated pelvic organ prolapse in women with stress urinary incontinence: when to operate?

Jerilyn M. Latini<sup>a</sup> and Karl J. Kreder Jr<sup>b</sup>

2005



## Reevaluating occult incontinence

Alexandra L. Haessler, Lawrence L. Lin, Mat H. Ho, Lance H. Betson and Narender N. Bhatia

2005

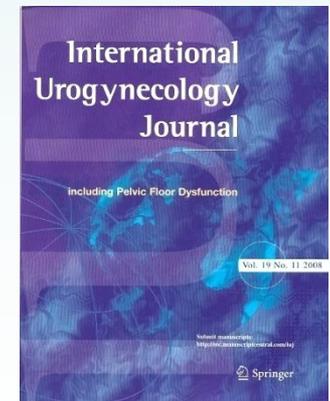
Int Urogynecol J (2009) 20:235–245  
DOI 10.1007/s00192-008-0734-4

REVIEW

## Is there any evidence to advocate SUI prevention in continent women undergoing prolapse repair? An overview

B. Fatton

2009



2012

## NEWS & VIEWS

URINARY INCONTINENCE

### Treating occult SUI—are two steps better than one?

Ali-Reza Sharif-Afshar and Jennifer Anger

Owing to a lack of universally accepted guidelines for the treatment of occult stress urinary incontinence at the time of surgery for pelvic organ prolapse, one-step and two-step approaches have been used—but which is the best choice?

Sharif-Afshar, A.-R. & Anger, J. *Nat. Rev. Urol.* advance online publication 9 October 2012; doi:10.1038/nrurol.2012.189



Conflicting literature  
Surgical practice varies widely  
Different approaches  
and algorithms

## OCCULT INCONTINENCE IN WOMEN WITH PELVIC ORGAN PROLAPSE — DOES IT MATTER?

2010

K. Jundt<sup>1</sup>, S. Wagner<sup>1</sup>, V. von Bodungen<sup>1</sup>, K. Friese<sup>1</sup>, U. M. Peschers<sup>2</sup>

<sup>1</sup>I. Department of Obstetrics and Gynecology, Beckenbodenzentrum der LMU, Ludwig-Maximilians-Universität, Munich, Germany,

<sup>2</sup>Beckenboden Zentrum München, Chirurgische Klinik München-Bogenhausen, Munich, Germany



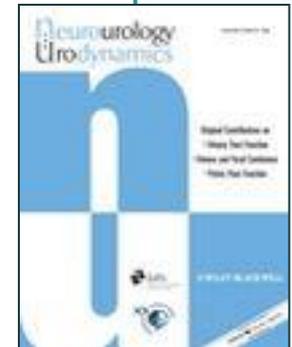
2011

Neurourology and Urodynamics 30:758–761 (2011)

### SUI Surgery at the Time of Vaginal POP Repair: Is a Surgical Algorithm Possible or Desirable?

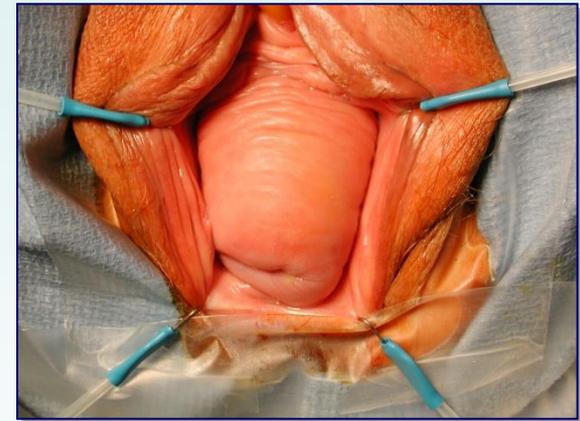
Howard B. Goldman\*

Section of Female Pelvic Medicine and Reconstructive Surgery, Glickman Urologic and Kidney Institute, The Cleveland Clinic, Lerner College of Medicine, Case Western Reserve University, Cleveland, Ohio



# POP and UI: clinical data

- SUI after POP surgery
  - 11% à 22%
- Reoperation for de novo SUI after POP repair within 5 years following surgery :
  - 7,5%
- Stage 3 -4 POP: Overt SUI without POP reduction is uncommon: ~4% (*CARE study*)
  - direct obstructive effect of the prolapsed organs
  - kinking of the urethra



# POP and overt SUI

- Concomitant procedure is commonly performed...  
with good SUI outcome

2010

European Journal of Obstetrics & Gynecology and Reproductive Biology 150 (2010) 97–101



Contents lists available at ScienceDirect

European Journal of Obstetrics & Gynecology and  
Reproductive Biology

journal homepage: [www.elsevier.com/locate/ejogrb](http://www.elsevier.com/locate/ejogrb)



Optimal primary minimally invasive treatment for patients with stress urinary incontinence and symptomatic pelvic organ prolapse: Tension free slings with colporrhaphy, or Prolift with the tension free midurethral sling?

Ivan Ignjatovic \*, Ivica Stojkovic, Dragoslav Basic, Nina Medojevic, Milan Potic

*Clinic of Urology, Clinical Center Nis, Serbia*

Concurrent SUI and POP surgery:  
SUI cure rate: 90% to 97,5% after 12 months

- But still debatable in some papers especially if using anterior mesh kit....

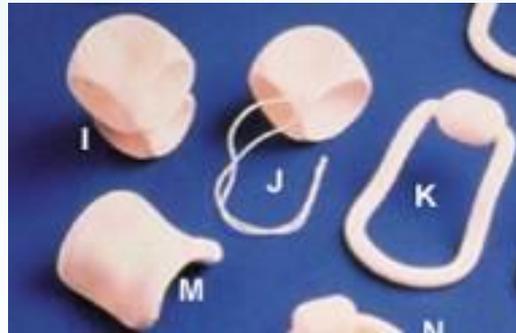
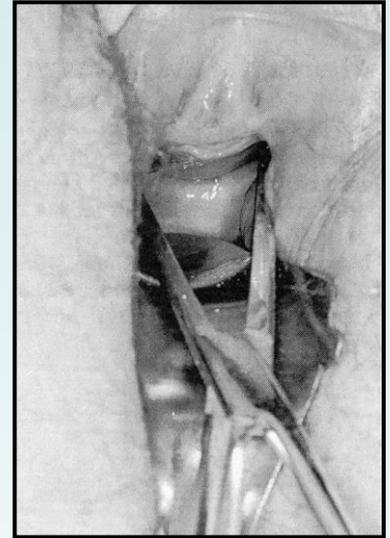
# The preoperative clinical and urodynamic testing

## Which method of prolapse reduction ?

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No standardization

- Bladder volume ?
  - 250 -300 ml bladder volume
  - Maximal capacity
- Valsalva maneuver, cough, both ?
- Position: lying, sitting, standing position ?
- Many methods of repositioning
  - Manual reduction
  - pessary
  - Sims speculum
  - Cotton swab
  - Vaginal packing
  - Forceps ring



# Prolapse reduction methods

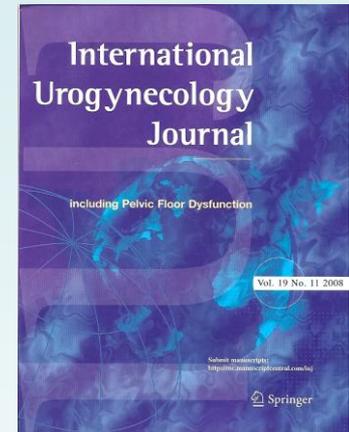
- Visco et al: prospective randomized trial ( level 1)
- Assessment of prolapse reduction methods

Int Urogynecol J (2008) 19:607–614  
DOI 10.1007/s00192-007-0498-2

ORIGINAL ARTICLE

2008

**The role of preoperative urodynamic testing in stress-continent women undergoing sacrocolpopexy: the Colpopexy and Urinary Reduction Efforts (CARE) randomized surgical trial**



- 322 patients enrolled
- 5 different methods of prolapse reduction were used
- Overall urodynamic stress incontinence with barrier reduction was diagnosed in **19%** of subjects

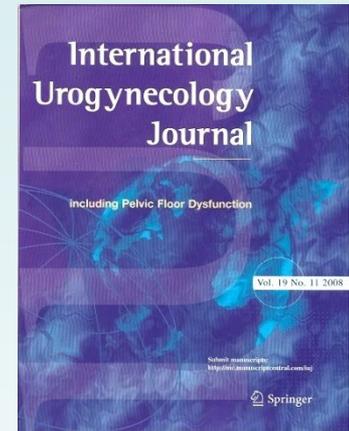
# Prolapse reduction methods

- Visco et al
- Evaluation of prolapse reduction methods

**Table 2** Rates of urodynamic stress incontinence with various methods of prolapse reduction (Burch and no Burch groups combined,  $n=322$ )

Prolapse reduction	Preoperative leakage with reduction <sup>a</sup>	
	<i>N</i>	%
All methods combined	112/584	19%
Pessary	5/88	6%
Manual	19/122	16%
Swab	32/158	20%
Forceps	21/98	21%
Speculum	35/118	30%

<sup>a</sup>There were two attempts at prolapse reduction stress testing per subject.



# POP and OSI Abdominal surgery

## The NEW ENGLAND JOURNAL of MEDICINE

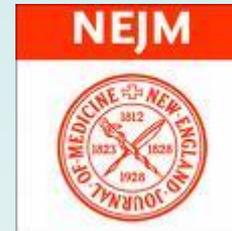
ESTABLISHED IN 1812

APRIL 13, 2006

VOL. 354 NO. 15

### Abdominal Sacrocolpopexy with Burch Colposuspension to Reduce Urinary Stress Incontinence

Linda Brubaker, M.D., Geoffrey W. Cundiff, M.D., Paul Fine, M.D., Ingrid Nygaard, M.D., Holly E. Richter, M.D., Ph.D.,  
Anthony G. Visco, M.D., Halina Zyczynski, M.D., Morton B. Brown, Ph.D., and Anne M. Weber, M.D.,  
for the Pelvic Floor Disorders Network\*



2006



- Brubaker et al: Prospective randomized trial
- SCP + Burch (157 w) versus SCP (165 w)      No symptoms of SUI

	Patients characteristics	SUI outcome	Urge outcome	Serious AE
Burch group	OSI: 37,5% (55) Detrusor overactivity: 12,1%	<b>23,8%</b>	32,7%	14,6%
Control group	OSI: 35,8%(58) Detrusor overactivity: 10,4%	<b>44,1%</b>	38,4%	14,5%
		<b><i>P &lt; 0,001</i></b>		

# POP and OSI

## Abdominal surgery

EUROPEAN UROLOGY 51 (2007) 788–794

available at [www.sciencedirect.com](http://www.sciencedirect.com)  
journal homepage: [www.europeanurology.com](http://www.europeanurology.com)

**eau**  
European Association of Urology



Female Urology – Incontinence

### Must Colposuspension be Associated with Sacropexy to Prevent Postoperative Urinary Incontinence?

2007

Elisabetta Costantini<sup>a,\*</sup>, Alessandro Zucchi<sup>a</sup>, Antonella Giannantoni<sup>a</sup>,  
Luigi Mearini<sup>a</sup>, Vittorio Bini<sup>b</sup>, Massimo Porena<sup>a</sup>



- Costantini et al: Prospective randomized trial
- SCP + Burch (34 w) versus SCP (32 w)

	Patients characteristics = <b>continent</b>	Posoperative SUI
Burch Group	Negative stress test No symptoms of SUI	<b>26,4%</b>
Control Group	Negative stress test No symptoms of SUI	<b>3,1%</b>
		<b><i>P</i> &lt; 0,001</b>

# POP and OSI

## Laparoscopic surgery

### *De novo* urinary stress incontinence after laparoscopic sacral colpopexy

Vincent Misraï, Morgan Rouprêt, Florence Cour, Emmanuel Chartier-Kastler and François Richard

*Department of Urology, Groupe Hospitalo-Universitaire EST, Pitié-Salpêtrière Hospital, Assistance Publique-Hôpitaux de Paris (AP-HP), Faculté de Médecine Pierre et Marie Curie, University Paris VI, France*

Accepted for publication 13 July 2007

2008



- Misraï et al: Case serie (NP 4)
- 53 women without overt or occult SI: laparoscopic SCP without an anti-incontience procedure

	Patients characteristics	Follow-up	Postoperative SUI
Laparoscopic SCP alone	17 (32%) previous SUI surgery	20,4 months	<b>13%</b>

# POP and OSI

## Vaginal surgery

2004

### Pessary Test to Predict Postoperative Urinary Incontinence in Women Undergoing Hysterectomy for Prolapse

Ching-Chung Liang, MD Yao-Lung Chang, MD, Shuenn-Dhy Chang, MD, Tsia-Shu Lo, MD, and Yung-Kuei Soong, MD

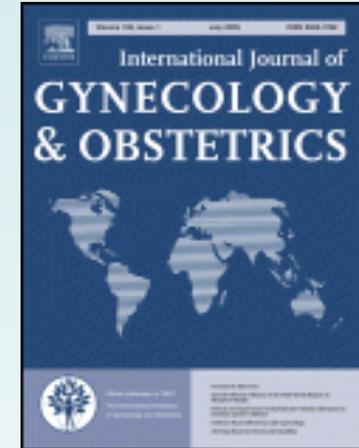
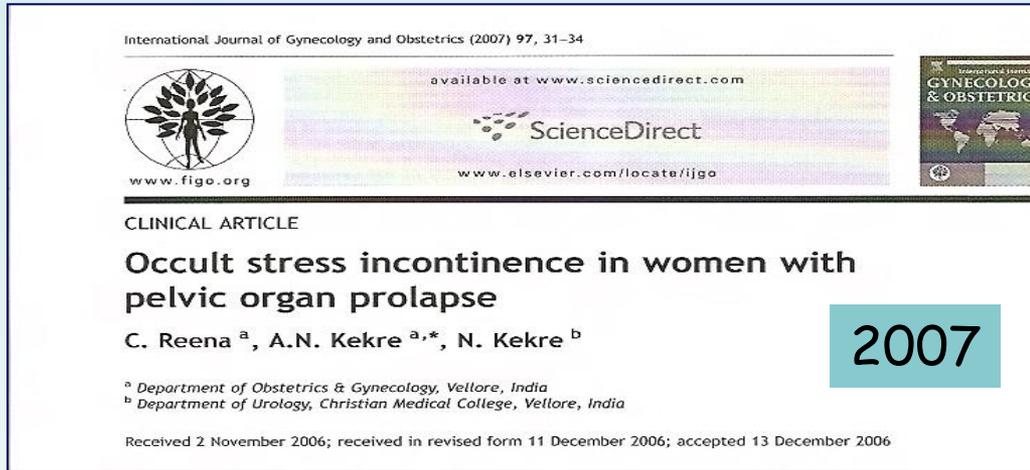


- Liang et al, prospective case control study (Level II)

	Anti-incontinence procedure	Objective SUI outcome	Subjective SUI outcome
OSI (pessary test+) N = 49	TVT : 32	Objective SUI: 0%	Subjective SUI: 9,4%
	Nothing : 17	Objective SUI: 52,9%	subjective SUI: 64,7%
No OSI N = 30	Nothing: 30	No postoperative SUI	

# POP and OSI

## Vaginal surgery



- Reena et al, Prospective cohort study (NP 3)

	Anti incontinence procedure	Objective urinary outcome
OSI (pessaty test+) N = 53	<b>nothing</b>	Objective SUI: 64,2% 35,8% remained dry



1/3 of the patients dry without any anti-incontinence procedure

# POP and OSI

## Transvaginal mesh repair

2009

### Ineffectiveness of Associating a Suburethral Tape to a Transobturator Mesh for Cystocele Correction on Concomitant Stress Urinary Incontinence

Fabrice Sergent, Gaëlle Gay-Crosier, Violène Bisson, Benoît Resch, Eric Verspyck, and Loïc Marpeau



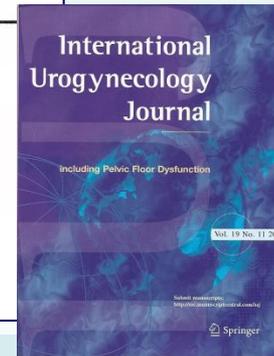
74 patients with stage 2 cystocele and overt or occult SUI  
No anti-incontinence procedure  
72% SUI cured  
15% improved  
13 % failure

Int Urogynecol J (2009) 20:421–425  
DOI 10.1007/s00192-008-0789-2

ORIGINAL ARTICLE

### Stress urinary incontinence after transob 2009 mesh for cystocele repair

K. L. Shek • A. Rane • J. Goh • H. P. Dietz



Retrospective study

57 patients with cystoceles underwent Perigee\* or Anterior Prolift\* procedure  
21 of 24 patients (87,5%) with preoperative SUI cured (13) or improved (8)  
after surgery

7 of 33 preoperative continent women complained of de novo SUI

« TVT-O like » effect of transobturator mesh .....

# POP and OSI

## Transvaginal mesh repair



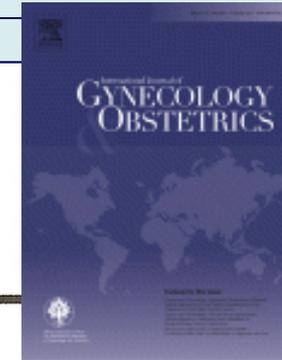
www.figo.org

Contents lists available at ScienceDirect

International Journal of Gynecology and Obstetrics

journal homepage: [www.elsevier.com/locate/ijgo](http://www.elsevier.com/locate/ijgo)

2011



### CLINICAL ARTICLE

Urodynamic and clinical effects of transvaginal mesh repair for severe cystocele with and without urinary incontinence

Ching-Chung Liang\*, Yi-Hao Lin, Yao-Lung Chang, Shuenn-Dhy Chang

Retrospective study

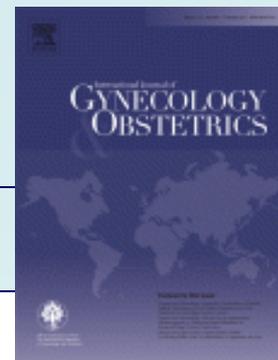
100 patients with cystocele stage 2 or 3

Anterior polypropylen mesh

(2 arms tension free in the Retzius space)

# POP and OSI

## Transvaginal mesh repair



Liang, 2011

50% of women with OSI dry without any anti-incontinence procedure

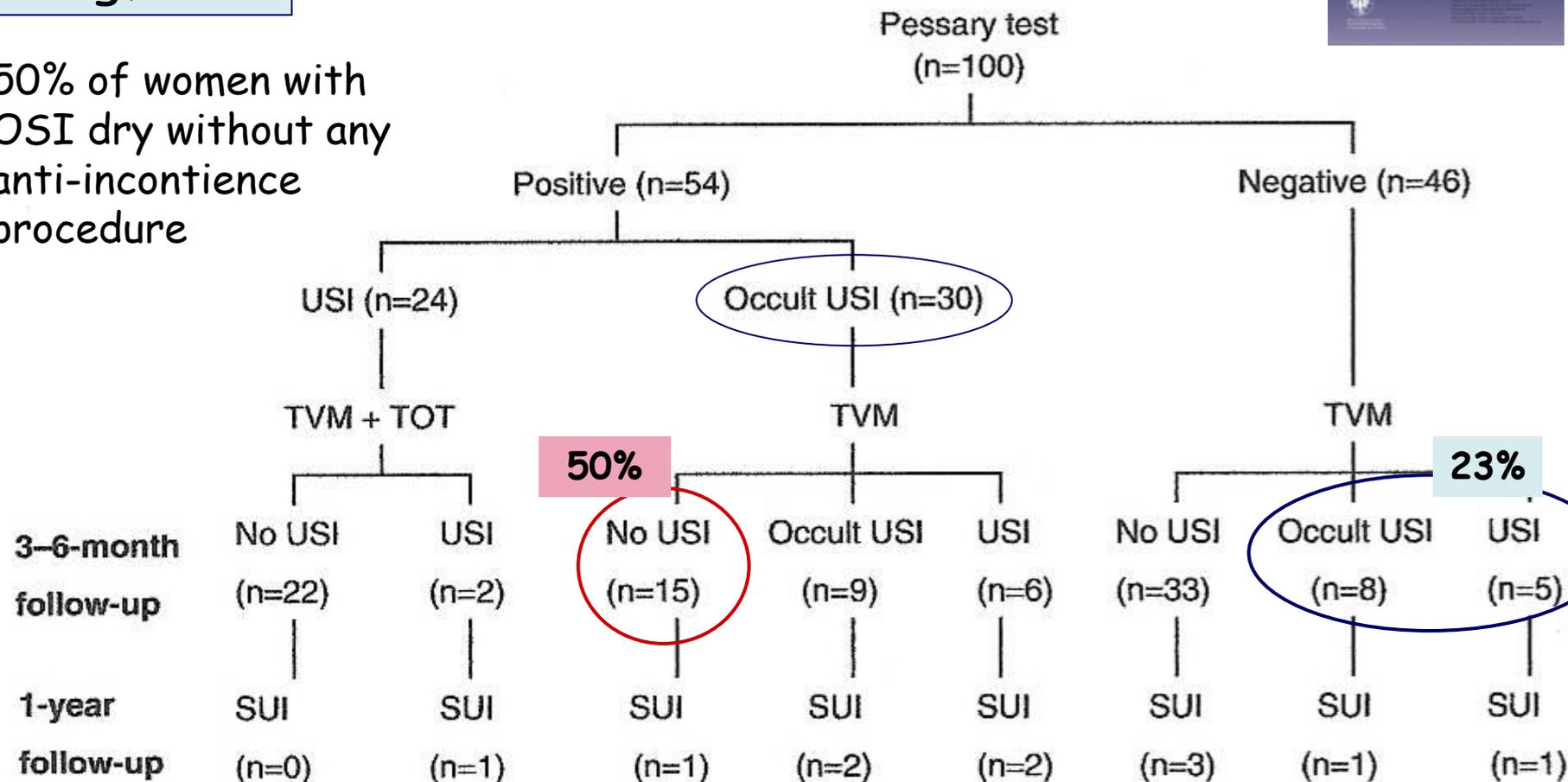
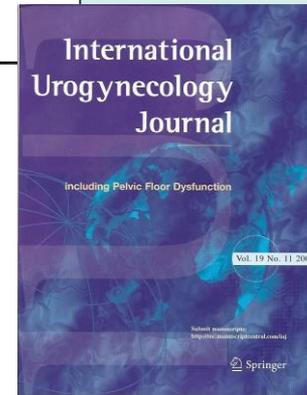


Fig. 1. Patient flow chart. Abbreviations: SUI, stress urinary incontinence; USI, urodynamic stress incontinence.

## Clinical relevance of occult stress urinary incontinence (OSUI) following vaginal prolapse surgery: long-term follow-up

Stefanie Ennemoser · Mirjam Schönfeld ·  
Vera von Bodungen · Darius Dian · Klaus Friese ·  
Katharina Jundt

2012



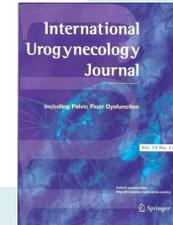
- Retrospective cohort study
- 491 women who underwent vaginal prolapse surgery
  - Stage 2 or higher genital prolapse
  - Evidence of OSUI
  - Informed consent
- 113/491 (23%) diagnosed with OSUI
  - 25/113 (22.1%) one step approach
  - Of the 88 remaining patients
    - ✓ 31 lost for follow-up
    - ✓ A total of **57 patients were examined** after surgery with an average follow-up of 5.7 years [2 - 8]

28% (16/57) had  
subjective and/or  
objective SUI  
5.3% (3/57)  
required TVT

# Clinical relevance of occult stress urinary incontinence (OSUI) following vaginal prolapse surgery: long-term follow-up

Stefanie Ennemoser • Mirjam Schönfeld •  
Vera von Bodungen • Darius Dian • Klaus Friese •  
Katharina Jundt

2012



- Retrospective cohort study
- Patients with occult SUI operated on POP by vaginal approach without antiincontinence surgery : 88 patients
- Follow up range from 2 to 8 years (median 5.7 y)
- Lost for fu: 31 >>> 57 patients evaluated postoperatively
  - Native tissue repair : 93%

Recurrent POP: 30%

Follow-up time (years)	2	3	4	5	6	7	8
<i>n</i> (%)	3 (5.3)	7 (12.3)	6 (10.5)	7 (12.3)	9 (15.8)	5 (8.8)	20 (30.9)
Postoperative SUI, <i>n</i> (%)	1 (1.8)	2 (3.5)	2 (3.5)	2 (3.5)	2 (3.5)	1 (1.8)	4 (7)

- SUI postop subjective and/or objective: 28%, objective SUI: 14%, reoperation for SUI: 7% (TVT)

# Prolapsus et IUE

- Maher et al
  - Méta analyse 2010-13
- Baessler et Maher 2013

Le geste urinaire associée réduit le risque d'IUE post-op en cas d'IUE masquée (grade A)

Le risque d'IUE de novo est plus faible après cure de cystocèle par tissus autologues qu'après réparation prothétique

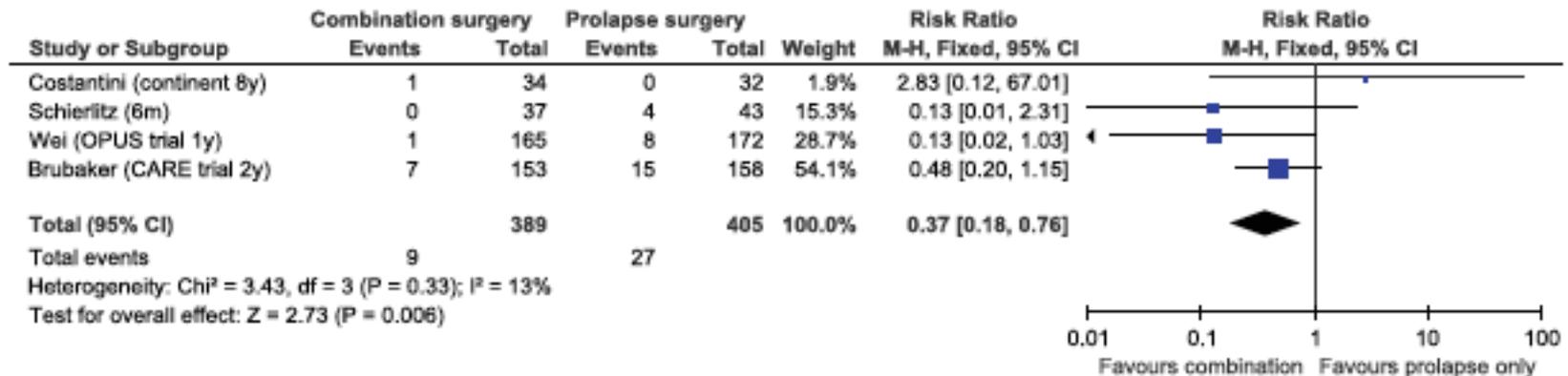


- The trials assessed were considerably heterogeneous regarding inclusion and exclusion criteria, clinical testing for stress urinary incontinence and operations performed. Also, the lack of separate reports of bladder symptoms account for a difficult interpretation of outcomes.
- Continent women undergoing anterior compartment POP surgery have a lower rate of de novo SUI after anterior repair than after armed mesh procedures ( grade A). Data are conflicting on whether colposuspension should be performed prophylactically in continent women undergoing sacral colpopexy (grade C). No clear conclusion can be drawn regarding the management of continent women undergoing POP surgery without occult SUI.
- In symptomatically continent women undergoing POP surgery with occult SUI the addition of continence surgery reduces the rate of postoperative SUI (grade A).
- In women with POP and SUI symptoms prolapse procedures alone (transobturator mesh and anterior repair) are associated with low success rates for SUI. Concomitant continence procedures reduce the risk of postoperative SUI (grade B).

# Prolapse surgery with or without stress incontinence surgery for pelvic organ prolapse: a systematic review and meta-analysis of randomised trials

2014

15 publications / 7RCT

JM van der Ploeg,<sup>a</sup> A van der Steen,<sup>b</sup> K Oude Rengerink,<sup>c</sup> CH van der Vaart,<sup>d</sup> JP Roovers<sup>c</sup>

**Figure 3.** Surgery for *de novo* stress urinary incontinence (SUI) after combination surgery versus prolapse surgery only in women asymptomatic for SUI preoperatively.

- Concomittant POP and SUI surgery reduces the rate of postoperative SUI
- But voiding difficulties and postoperatives adverses events are more frequent if concurrent suburethral sling

- In patients with POP without symptomatic SUI
  - We need to treat 6 patients to prevent one case of postoperative subjective SUI
  - And we need to treat 20 patients to avoid 1 suburethral sling
- In patients with occult SUI

We need to treat 3 patients to prevent one case of postoperative SUI

**Table 2.** De novo (stress) urinary incontinence ([S]UI) in patients asymptomatic for SUI preoperatively: with occult SUI versus without occult SUI

Study	Outcome	Postoperative SUI in women WITH occult SUI, % (n/N)		Postoperative SUI in women WITHOUT occult SUI, % (n/N)	
		Combination surgery	Control	Combination surgery	Control
Visco et al. <sup>37</sup> (CARE trial)	Objective SUI at 3 months	32 (12/38)	58 (23/40)	21 (22/106)	38 (41/109)
Liapis et al. <sup>26</sup>	Objective SUI at 24 months	14 (6/43)	46 (18/39)	NA	NA
Wei et al. <sup>11</sup> (OPUS trial)	UI at 12 months	35 (19/54)	60 (34/57)	28 (30/107)	41 (46/113)
Total	Objective SUI	22 (18/81)	52 (41/79)		
NNT (ARR)	Objective SUI	3.3 (30%)		NA	

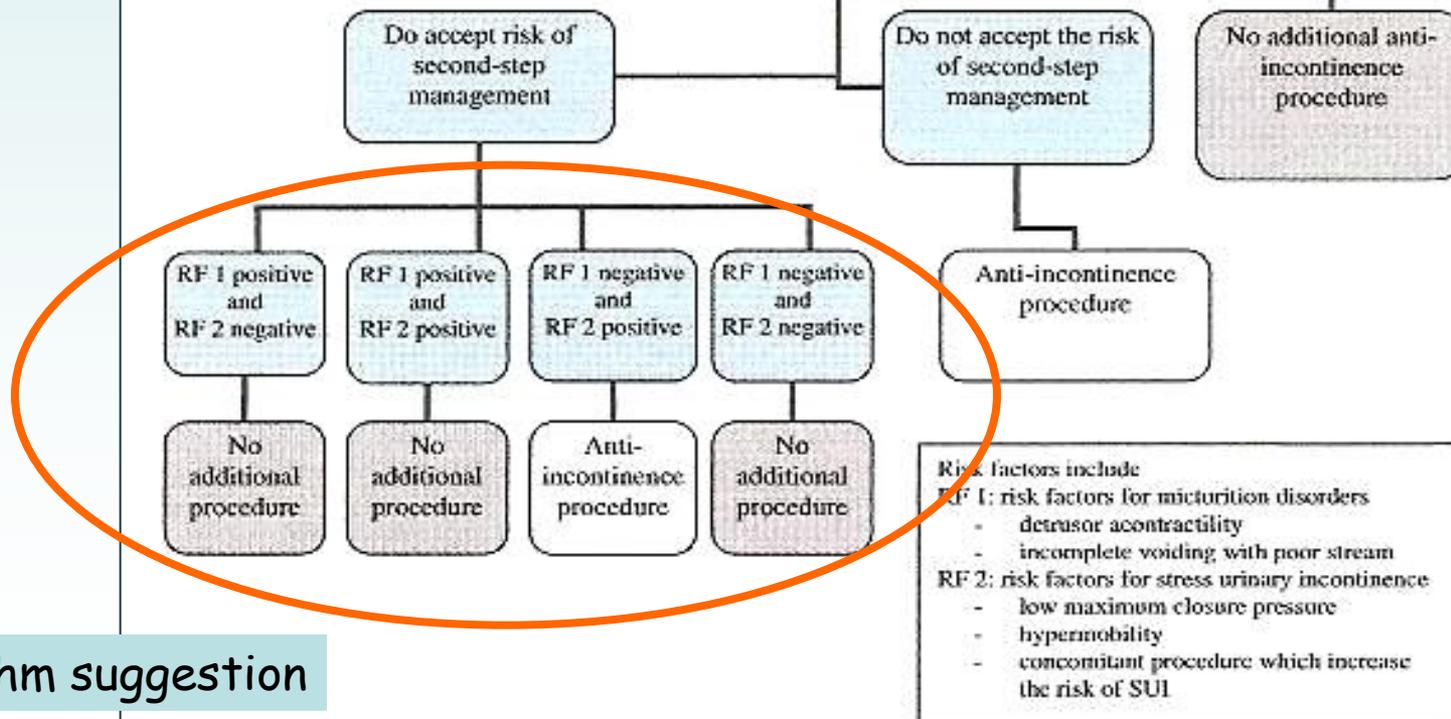
ARR, absolute risk reduction; NA, not available; NNT, number needed to treat.

## Is there any evidence to advocate SUI prevention in continent women undergoing prolapse repair? An overview

B. Fatton



2009



Algorithm suggestion

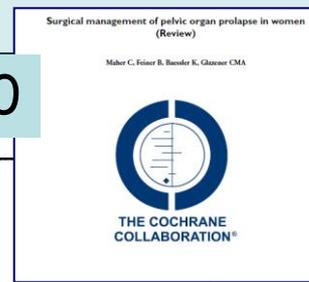
Int Urogynecol J (2011) 22:1445–1457  
DOI 10.1007/s00192-011-1542-9

2010

ORIGINAL ARTICLE

## **Surgical management of pelvic organ prolapse in women: the updated summary version Cochrane review**

**Christopher M. Maher · Benny Feiner ·  
Kaven Baessler · Cathryn M. A. Glazener**



The value of a continence procedure in addition to a prolapse operation in women who are continent preoperatively remains uncertain

Int Urogynecol J (2012) 23:827–829  
DOI 10.1007/s00192-012-1690-6

2012

CLINICAL OPINION

## **Women with occult stress incontinence should not routinely have a mid-urethral sling with prolapse surgery**

**Peter L. Dwyer**

According to the literature, a systematic MUS in women with OSUI overtreats about 50% of the patients

# Conclusion

- Restrictive policy
- Patient counselling ++
- If anti-incontinence procedure, MUS have become the preferred operation worldwide, replacing Burch
- If performed, the risks and benefits need to be discussed with the patient
- Don't forget: micturition disorders are often more difficult to manage than a de novo SUI
  - MUS offer a minimally invasive, safe and effective treatment to treat these patients in a 2 steps fashion