NESA DAYS
UROGYNECOLOGY

PROLAPSE RECONSTRUCTIVE SURGERY IN SEXUALLY ACTIVE WOMEN

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Great challenge: surgical resolution of prolapse responding to patient expectatives

TRY TO SOLVE PROBLEM WITHOUT CREATING NEW ONES

INDIVIDUALIZE THE OPERATION based on problem assessment and patient requirements:

type and extent of deficiency
asymptomatic or symptomatic
which symptoms
age
vaginal habitability or not
patient characteristics
possible gynecological pathology associated

LARGE CHOICE OF OPERATION TECHNIQUES

ADOPT THE MOST SUITABLE OPERATION

The best interest of the patient is the only interest to be considered

SURGICAL OPTIONS **based on:**

*general medical conditions

***sexually active YES / NO**

RECONSTRUCTIVE

Vaginal approach

Abdominal approach

OBLITERATIVE

Vaginal approach

****colpohysterectomy, culdoplasty (McCall), large anterior and posterior colporraphies and fascia plication***

*** Colpocleisis Neugebauer-LeFort***

RECONSTRUCTIVE SURGERY

Objectives :

1) Anatomically and functionally correct the prolapse, removing symptoms

2) Preserve vaginal habitability

ADVANCED APICAL PROLAPSE

also high-grade (III-IV stage) multicompartment anterior and posterior

in sexually active women

KEY POINT OF OPERATION :

APICAL SUSPENSION

De Lancey Level I support

VAGINAL RECONSTRUCTIVE SURGERY

APICAL SUSPENSION AT:

LIGAMENTS : uterosacral (Mayo-Mcall ; Shull)
sacrospinous
myorraphies, paravaginal repair
Manchester repair

WITH MESH : ICS (Papa Petros infracoccygeal sacropexy)
Transvaginal Mesh Procedures (prepackaged kits)

LAPAROSCOPIC ABDOMINAL RECONSTRUCTIVE SURGERY

APICAL SUSPENSION with mesh:

1) To the promontory (SACROCOLPOPEXY)

2) To the abdomial wall:

laterally (POPS Longo)

anteriorly (ANTERIOR COLPOSUSPENSION

Shaw- Dubuisson)

SURGICAL MANAGEMENT OF PELVIC ORGAN PROLAPSE

Vaginal approach Abdominal approach

Each technique has its own success and complication rate, and surgeons must individualize the surgical plan for each patient, weighting the risks and benefits

AN UPDATE ON SURGICAL OPTIONS AND OUTCOMES MEASURES

(efficacy, complications, quality of life)

CONCERNING VAGINAL APPROACH

Sacrospinous vaginal fixation 5-15% recurrent prolapse *Petri Acta Obst Gyn Scand 2011*

No difference in the adjusted objective, subjective success rates and sexual function **between hysteropexy and hysterectomy** *Tsia-Shu Lo J Obst. Gyn. Research 2015*

Native tissue VS biological graft repair : **no significant differences** except recurrent anterior prolapse increased with native tissue repair

Native tissue VS polypropylene mesh repair: **with native tissue increased** awareness of prolapse, increased risk of repeat surgery for prolapse and increased recurrence af anterior compartement prolapse .

However, with native tissue repair reduced risk of *de novo* SUI , bladder injury , mesh complications *Maher C Cochrane Database Syst Rev 2016*

Larouche M et al , J Obstet Gynaecol Can 2017

TRANSVAGINAL MESH PROCEDURES FOR PELVIC PROLAPSE

Guideline reviewes

STATEMENTS :

*risk of vaginal mesh exposure averaging 12%

*the improved anatomical success rate of TVM is associated with an increased overall reoperation rate compared with native tissue repairs (prolapse recurrence, mesh exposure, de novo SUI, pain)

RECOMMENDATIONS :

*training specific to TVM

*patient selection

*preoperative counselling

CONCERNING ABDOMINAL APPROACH

Sacral colpopexy (open abdominal, laparoscopic or robotic-assisted laparoscopic technique) **has a high-effectivity** (good durability and quality of life performance)

FIGO Warking Group Report Neurourol Urodynam 2017

Meta-analysis and systematic rewiew on **Laparoscopic sacrocolpopexy VS Robot-assisted laparoscopic sacrocolpopexy (RALSC):** RALSC significantly longer, costs significantly higer, estimated blood loss and complications are similar *Pan K Int J Gynaecol Obstet 2016*

Sacral colpopexy : less awareness of prolapse, less repeat surgery, less recurrent prolapse, less dispareunia compared with Vaginal procedures .

Sacral colpopexy is considered the gold standard for apical vaginal prolapse

Maher C Cochrane Database Syst Rev 2016

Lucot JP, Cosson M, Wattiez A et al, EUR UROL 2018

SAFETY OF VAGINAL MESH SURGERY VERSUS LAPAROSCOPIC MESH SACROPEXY FOR CYSTOCELE REPAIR: RESULTS OF PROSTHETIC PELVIC FLOOR REPAIR RANDOMIZED CONTROLLED TRIAL

Laparoscopic sacropexy is a valuable option for primary repair of cystocele in sexually active patients.

Laparoscopic sacropexy is safer than TVM and sexual function is better preserved

Laparoscopic sacropexy may not be feasible in all cases

CONCERNING SURGICAL MESH

FDA regulation of Trans Vaginal Mesh (2008 alert, 2011 statement,2016 reclassification, 2019 bans transvaginal mesh for prolapse):

serious complications are not rare;

TVM for POP as class III (high-risk), with the exception of the mesh for SUI treatment and the mesh for abdominal repair of POP (class II, moderate risk)

AUGS and ACOG recommendations and guidelines 2016-2017

The decision on surgical alternatives should be made by the patient and her surgeon. Use of TVM for POP repair should be limited to those individuals in whom the benefit outweighs the risk;

Instead a ban on mesh, AUGS has recommended the implementation of credentialing guidelines so that mesh procedure are performed by qualified surgeons (surgical skills, experience and knowledge);

New products must demonstrate long term safety and efficacy;

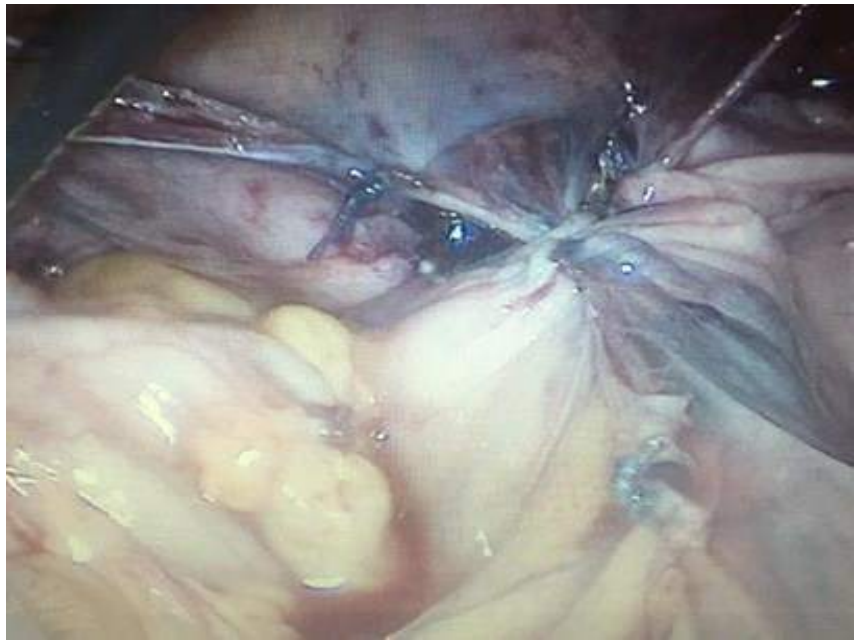
Sacrocolpopexy is a highly effective and durable procedure used to treat apical uterine and vault POP

LARGE CHOICE OF OPERATION TECHNIQUES: MANY ARE TRADIONAL REPAIRS BUT STILL EFFICIENT AND SUITABLE FOR PECULIAR OCCURRENCE

Certainly:

- **The vaginal route is always efficient**, also with native tissue
- **No misuse of mesh**
- Always **mininvasive approach**, by vaginal or laparoscopic route(**no laparotomy**)
- **Abdominal approach**, laparoscopic, is more expensive but **it reduces recurrence and mesh-related complications, assuring stable lenght and diameter of vagina**
- **One implication is that a patient operated for genital prolapse shoud be managed in centers that use all approaches**

Laparoscopic abdominal approach with ***suspension to the promontory***: **promontofixation (sacrocolpopexy)**



CURRENT STATUS OF LAPAROSCOPIC SACROCOLPOPEXY: A REVIEW

Ganatra et al Eur Urol 2009

OUTCOMES

- 11 studies n° 1197 LSC
- Operative time 158 min (96-286)
- Conversion 0-3%
- Infrequent intra- and post-operative complications
- Follow-up 24,6 months
- Patient satisfaction 94,4%
- Anatomical cure rate 92%
- Erosion 2,7% (0-9%) ; ASC 3-12% ; TVM 10%
- Recurrence 4% (apical: infrequent; anterior and posterior: more common)
- Reoperation 6,2 %
- Sexual funciton: improved 83%
- Intestinal dysfunction 9,8% (0- 25%)
- Urinary dysfunction: infrequent
- 2 mesh (ant. and post.) : reduced relapse

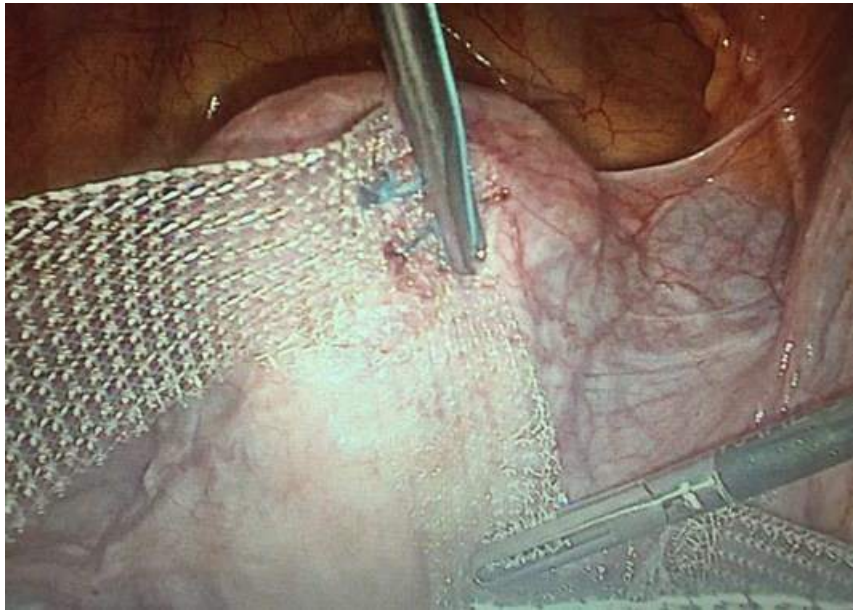
Critical issues of sacrocolpopexy

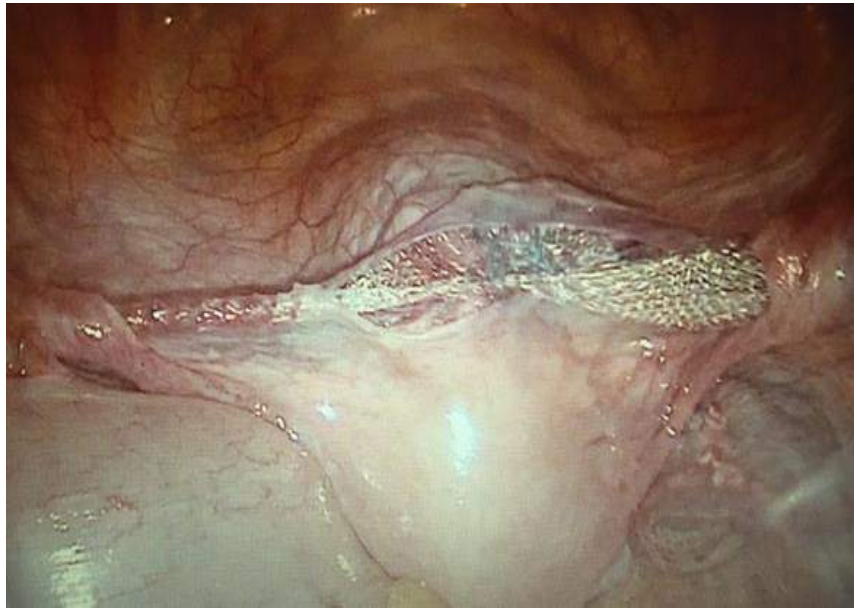
- **Critical surgical steps**: stitch on the promontory; preparation of recto-vaginal space up to elevator ani muscle; uterine conservation; nerve sparing surgery

- **Possible complications** : haemorrahge, pain, vaginal mesh exposure, mesh erosion into viscera (bladder, rectum, bowel), sacral discitis or osteomyelitis

- **May not be feasible in all cases**

Laparoscopic abdominal approach with *suspension to the lateral abdominal wall* :POPS (Longo)





Abdominal approach with *suspension to the anterior abdominal wall: anterior colposuspension*(Shaw) (open surgery)

SHAW H.N.: Prolapse of vaginal vault following hysterectomy; new methods of repair; presidential adress.

West Journ. Surgery, 56, 127, **1948**

It. J. Gynæc. Obstet.
1989; 1: 97-101

ORIGINAL PAPER

Anterior Abdominal Wall Colpopexy using a Polytetrafluoroethylene Strip (Gore-Tex) for Genital Prolapse and Preservation of Vaginal Function

P.L. Narducci, U. Narducci
Division of Obstetrics and Gynecology, General Hospital of Foligno, Foligno (Italy).

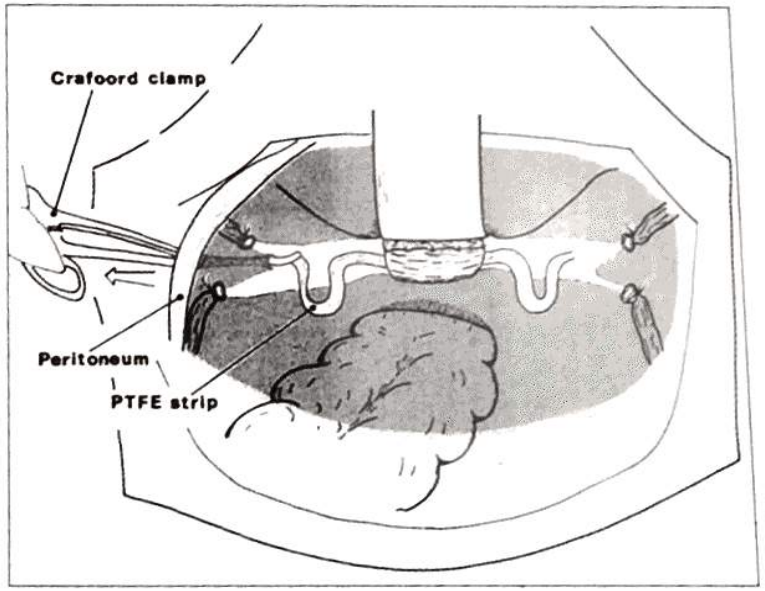


Fig. 3. - See text, p. 100.

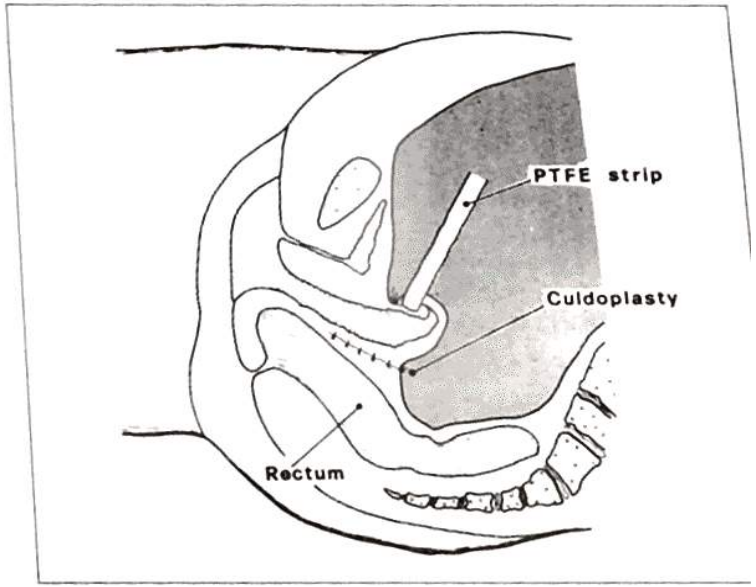


Fig. 4. - See text, p. 100.

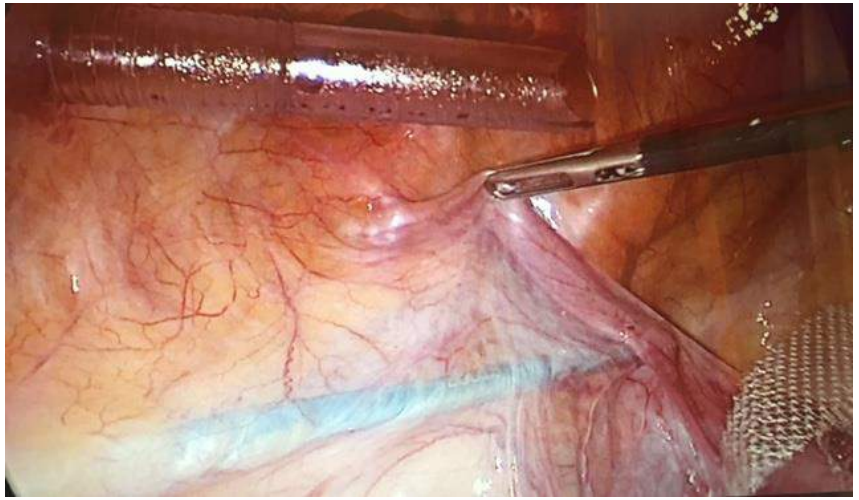
OPEN SURGERY

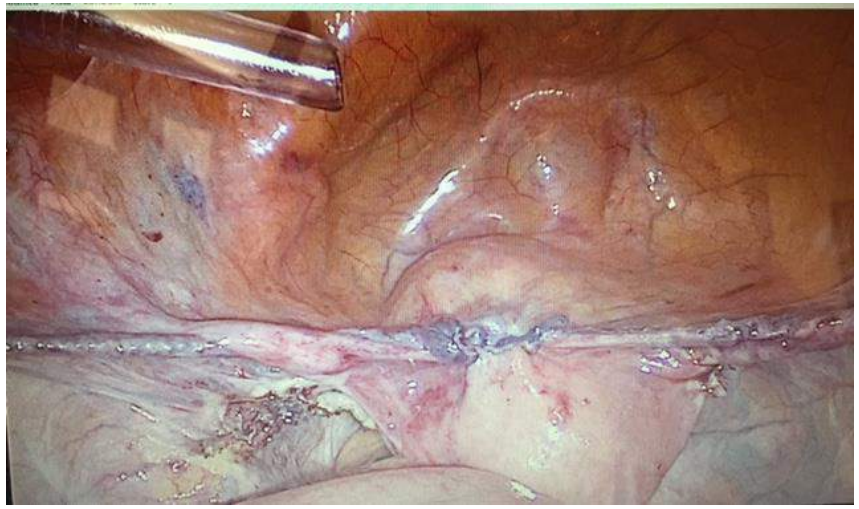
DUBUISSON JB et al.

Laparoscopic repair of pelvic organ prolapse by lateral suspension with mesh: a continuos series of 218 patients

Gynecol Obstet Fertil 39: 127-131 **2011**

Laparoscopic anterior colposuspension (Shaw – Dubuisson)





Operative time and technique

1) Self-tailored mesh **strip** in polypropylene

2) (Subtotal hysterectomy)

3) Preparation of vesical(recto) **vaginal space**

4) Colpocervical anchorage of strip arms with non absorbable stitchs

5) Small **skin incision of anterior abdominal wall, bilateral**, 4 cm under OT and 6/7 cm from median line

6) Bilateral **extraperitoneal tunnelling of mesh strip**, through above mentioned incision, tensioning and tension-free fixation to abdominal muscular-aporeunotic flat

7) Accurate **peritonization**

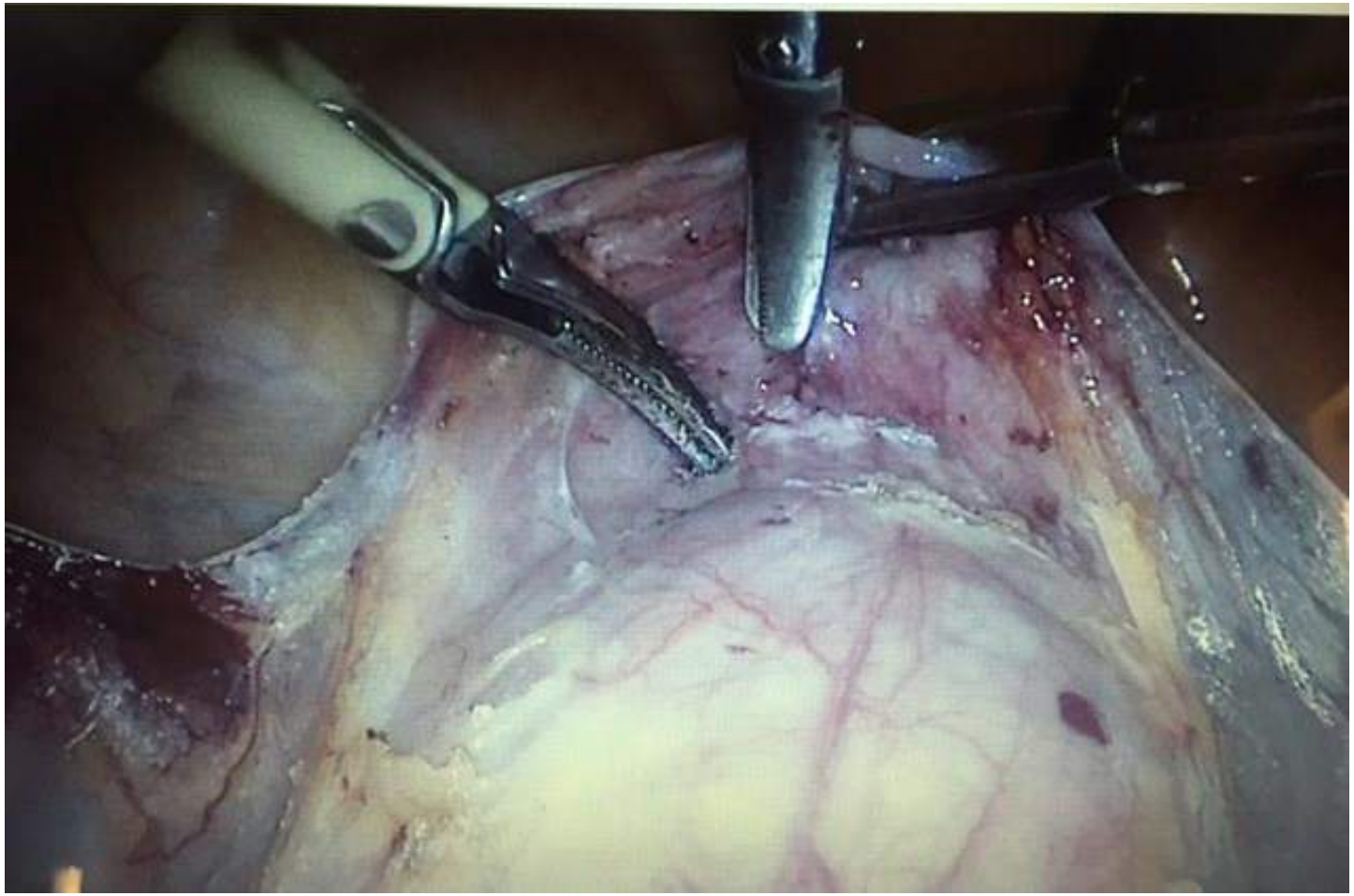
8) **Culdoplasty** (Moschowitz)

9) (Uterine morcellation, if subtotal hysterectomy)

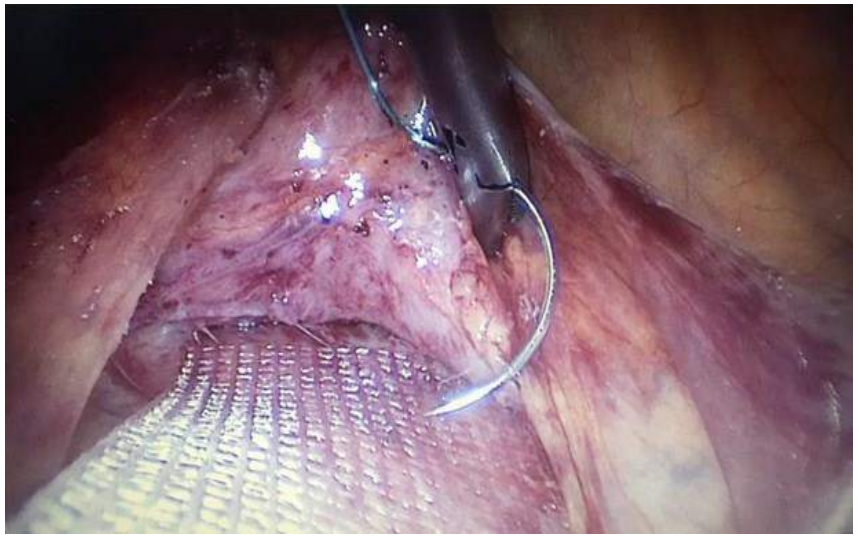
1) Mesh strip

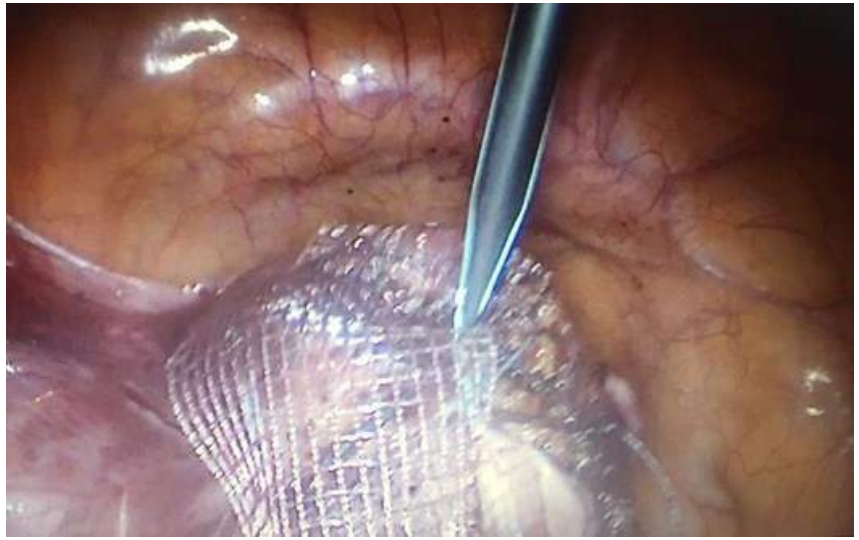
2) Subtotal hysterectomy

3) Vesical and recto vaginal spaces



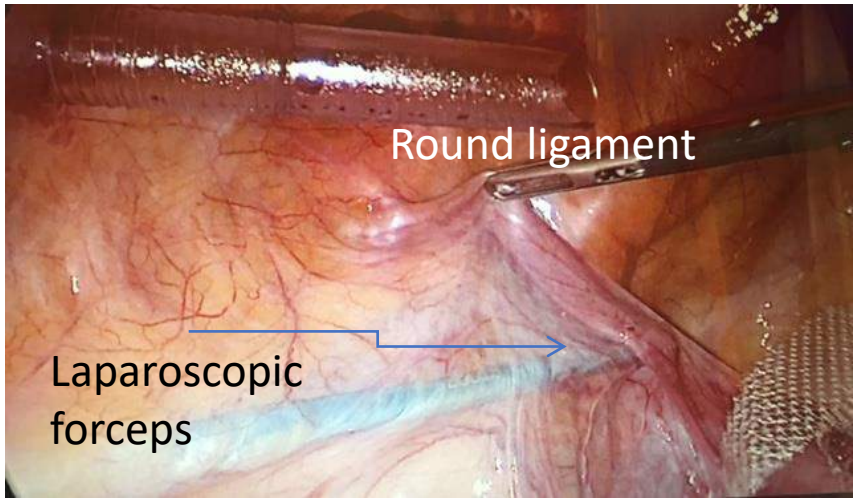
4) Colpocervical anchorage

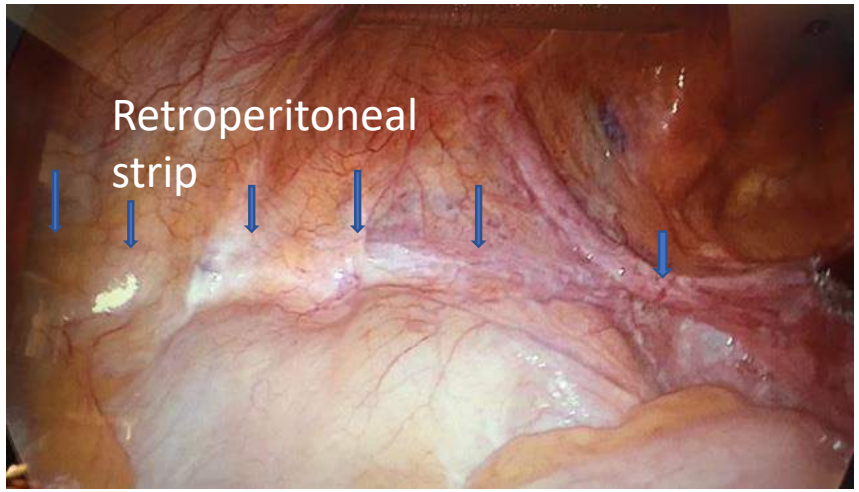




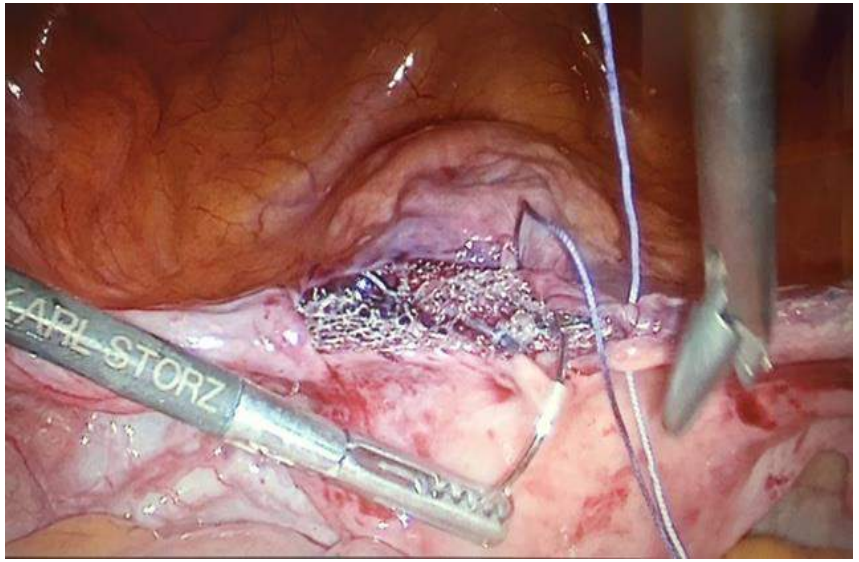
5) Abdominal skin incision

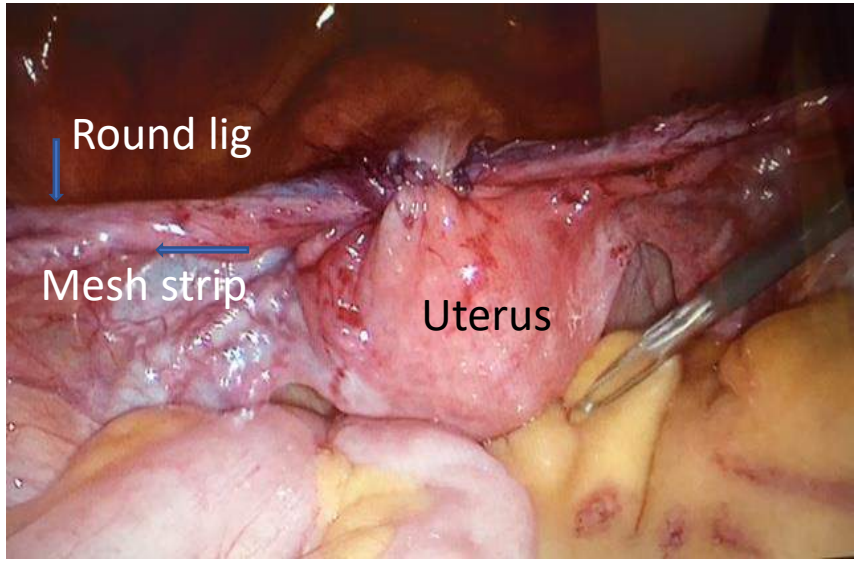
6) Extraperitoneal tunnelling of strips



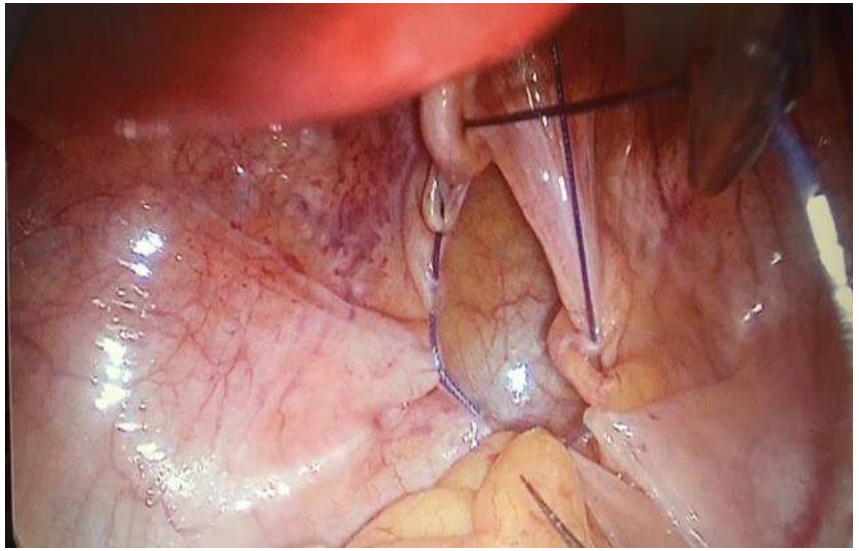


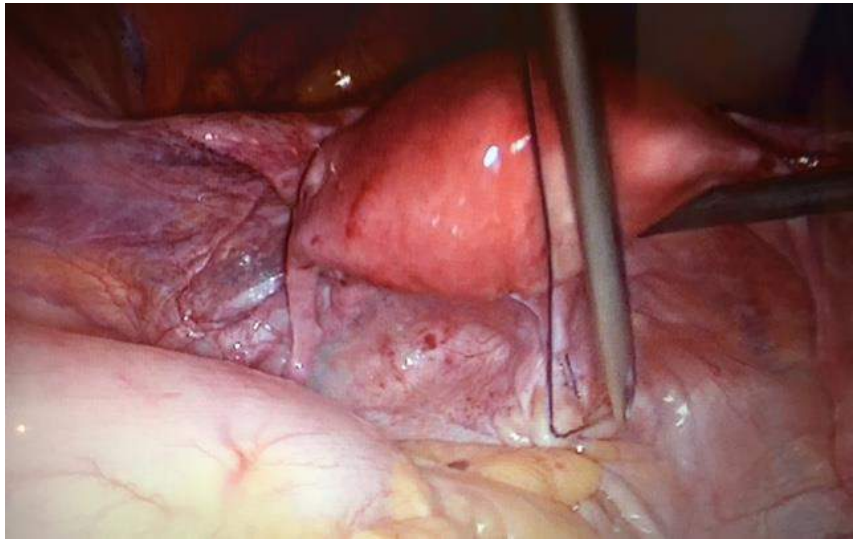
7) Peritonization, tensioning and tension-free fixation to anterior abdominal wall





8) Culdoplasty





JB Dubuisson et al , Int Urogynecology J 2017

PATIENT SATISFACTION AFTER LAPAROSCOPIC LATERAL SUSPENSION WITH MESH FOR PELVIC ORGAN PROLAPSE : OUTCOME REPORT OF A CONTINUOUS SERIES OF 417 PATIENTS

2003-2011 n° 417 LLS

78,4% asymptomatic

91,6% anatomic success anterior compartment

93,6% anatomic success apical compartment

85,3% anatomic success posterior compartment

4,3% mesh exposure (% inferior with macroporous monofilamentous mesh)

7,3% reoperation rate

85% situation improved and satisfaction with absence of concomitant hysterectomy

LLS is a safe technique with promising results

PL Narducci, U Narducci
It J Gynaec Obstet 1989

ANTERIOR ABDOMINAL WALL COLPOPEXY USING A POLYTETRAFLUORETHYLENE STRIP (GORE-TEX) FOR GENITAL PROLAPSE AND PRESERVATION OF VAGINAL FUNCTION

1983-1985 n° 54 cases, follow-up 2-4 years ;

Open abdominal hysterectomy, anterior colpopexy, culdoplasty, Gore-tex

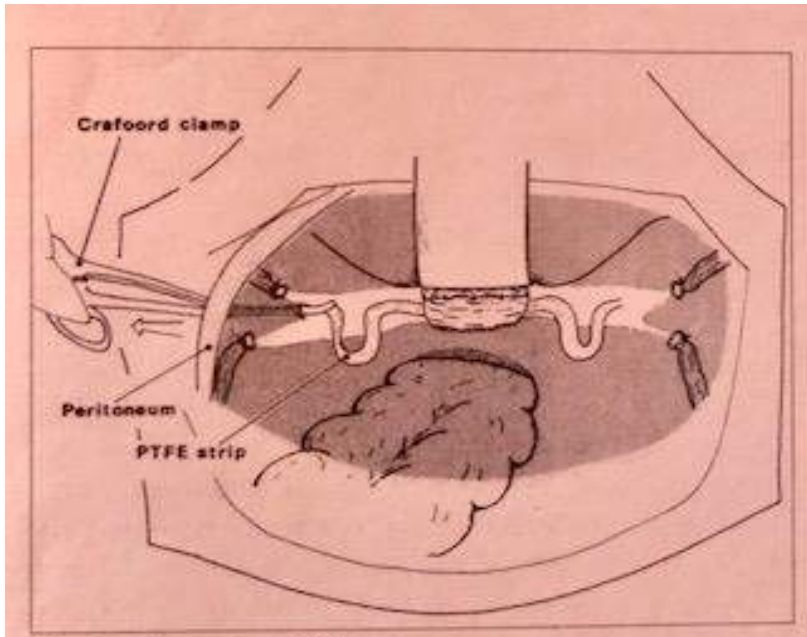


Fig. 3. - See text, p. 100.

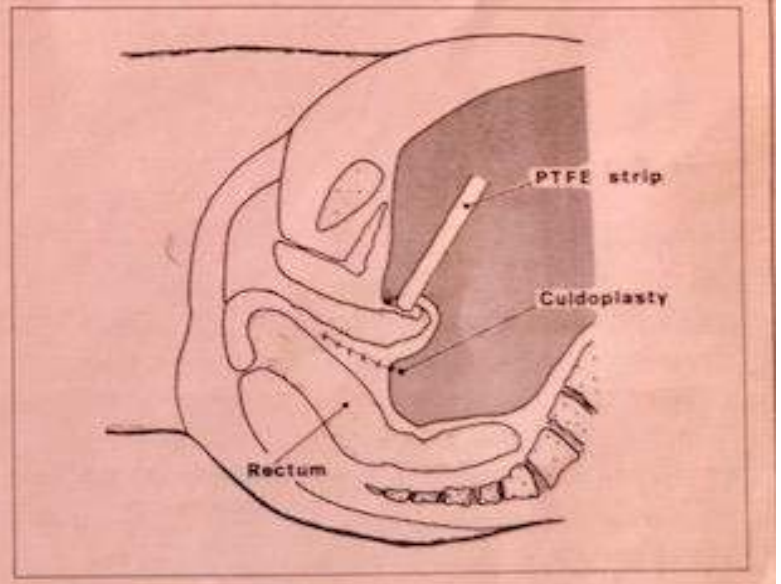


Fig. 4. - See text, p. 100.

OPEN SURGERY

Table I. - Different features of genital prolapse in the 54 patients (*) of our study group.

Genital prolapse	No. cases
Total prolapse (hysterocele + cystourethrocele + rectocele) (Grade ≥ II)	16
Cystourethrocele (Grade III)	15
Cystourethrocele (Grade III) + rectocele (Grade II and III)	23

(*) Thirtytwo of the 54 patients had concomitant urinary incontinence (27 stress incontinence; 5 mixed forms).

Table III. - Results of treatment of cystocele and rectocele.

Defect	Total cases	Cured		Improved (°)		Not cured (°°)	
		No. cases	(%)	No. cases	(%)	No. cases	(%)
Cystocele	54	48	(89)	6	(11)	–	–
Rectocele	39	20	(51) *	18	(46)	1	(2.6)

* 10 of the 20 patients had a concomitant posterior colporraphy. (°) Recurrence, Grade I. (°°) Recurrence, grades II - III.

It J Gynaec Obst 1989

From 1983 to 1991 a series of 131 cases of anterior abdominal wall colpopexy with a Gore-tex strip (open surgery)

In 42 cases **follow-up to 29 years**

3 (7%) removal for exposure/infection

6 (14%) reoperation for symptomatic recurrence

33 (79%) good subjective and objective result

PL Narducci, U Narducci Ost Gyn Foligno

Departement of Obst Gyn General Hospital of Foligno

LAPAROSCOPIC ANTERIOR ABDOMINAL WALL COLPOPEXY

From November 2014 to September 2017

a series of 52 patients with POP

---

29 hysterocystocele III-IV stage

15 **+** rectocele II-III stage

8 vaginal vault III-IV stage

Prolapse type (POP-Q stage)

Selected according to:

*severe symptomatic prolapse (pain; dysuria; dyspareunia)

***wish to preserve vaginal function**

*possibile associated benign uterine and/or ovarian pathology

*test with ring-shaped clip

average age 52 (41-71)

BMI 26 (21-33)

By Laparoscopy :

26 subtotal hysterectomy with bilateral salpingectomy, with or without ovariectomy,

+**anterior colpocervicosuspension**

+culdoplasty

18 anterior colpocervicosuspension with **uterine conservation** + prophylactic bilateral salpingectomy, with or without ovariectomy **+ culdoplasty**

8 anterior colposuspension and **culdoplasty**

Mesh

Polypropylene type I monofilament macroporous mesh

Titanised

Results

Operative average time 96 min (50 min with uterine conservation or in vault prolapse)

No conversion

No intraoperative complication

Minimal bleeding

Postoperative complications: 1 abdominal wall hematoma

2 cases of abdominal wall pain

Hospital stay duration 3/4 days

Results at 6-32 months after prolapse surgery

5 (10%) asymptomatic cystoceles II stage(persistance / recurrence)

1 (2%) reoperation for symptomatic cystocele III stage

No mesh exposure / rejection

No urinary incontinence *de novo*

OBJECTIVE CURE RATE 88%

1 (2%) dysuria

2 (4%) painful symptomatology

No dispareunia

PERSONAL CURE RATE 96%

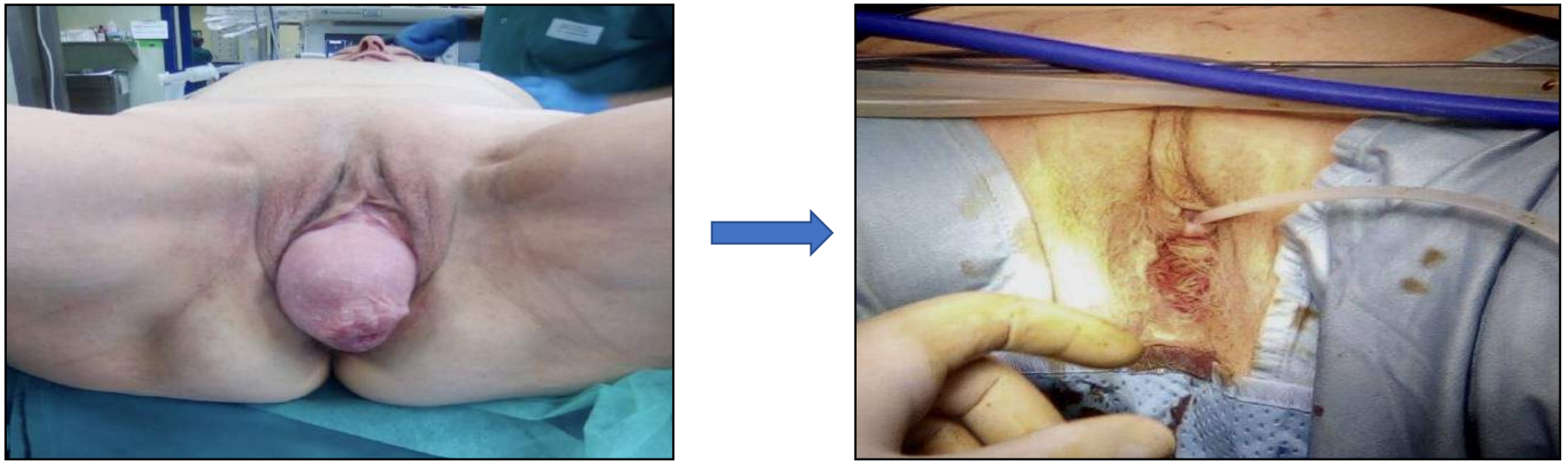
CONCLUSION

- Easier operation with reduced risk compared to sacrocolpopexy (no critical steps)
- Easier possible uterine conservation
- Efficient operation in apical prolapse treatment, also severe and multicompartment
- The association of culdoplasty is considered essential
- With mesh cervical anchorage, reduced risk of exposure and improved resistance

The LAPAROSCOPIC ANTERIOR COLPOSUSPENSION

is an **effective alternative** to sacrocolpopxy,

to be used in a personalized surgical treatment of prolapse



Management of reconstructive surgery Hospital of Foligno 2007-2018

- **Knowledge of all the surgical options in order to personalize operation**
- We have abandoned transvaginal mesh repair, except for some selected cases of ICS
- In selected cases, persistent use of fascial vaginal surgery
- Laparoscopic option prevailing for severe apical prolapses, and for 3 years, preferably anterior colposuspension

NB: Only vaginal obliterative procedures for women with severe POP who do not wish to retain coital function

OBJECTIVE OF PROLAPSE OPERATION:

***Answer to patient requirement**

***Mininvasive surgery preferred in less complicated operation**

***Reduced risk of recurrence**

***Reduced risk of complication, incluede for use of mesh**

that means :

SOLVE PROBLEMS WITHOUT CREATING NEW ONES

PRIMUM NON NOCERE

- **POP is not a life-threatening condition**
- **No treatment when asymptomatic**
- **The management: observation, rehabilitation, pessary, surgery**
- **Surgical treatment should be individualized:*vaginal obliterative procedures**
  ***reconstructive surgery strategies**

<u>COMPLEX DECISION PROCESS THAT INVOLVE A MULTITUDE OF FACTORS</u>

GYNAECOLOGIST WITH A SPECIAL INTEREST IN UROGYNAECOLOGY