

Female AUS



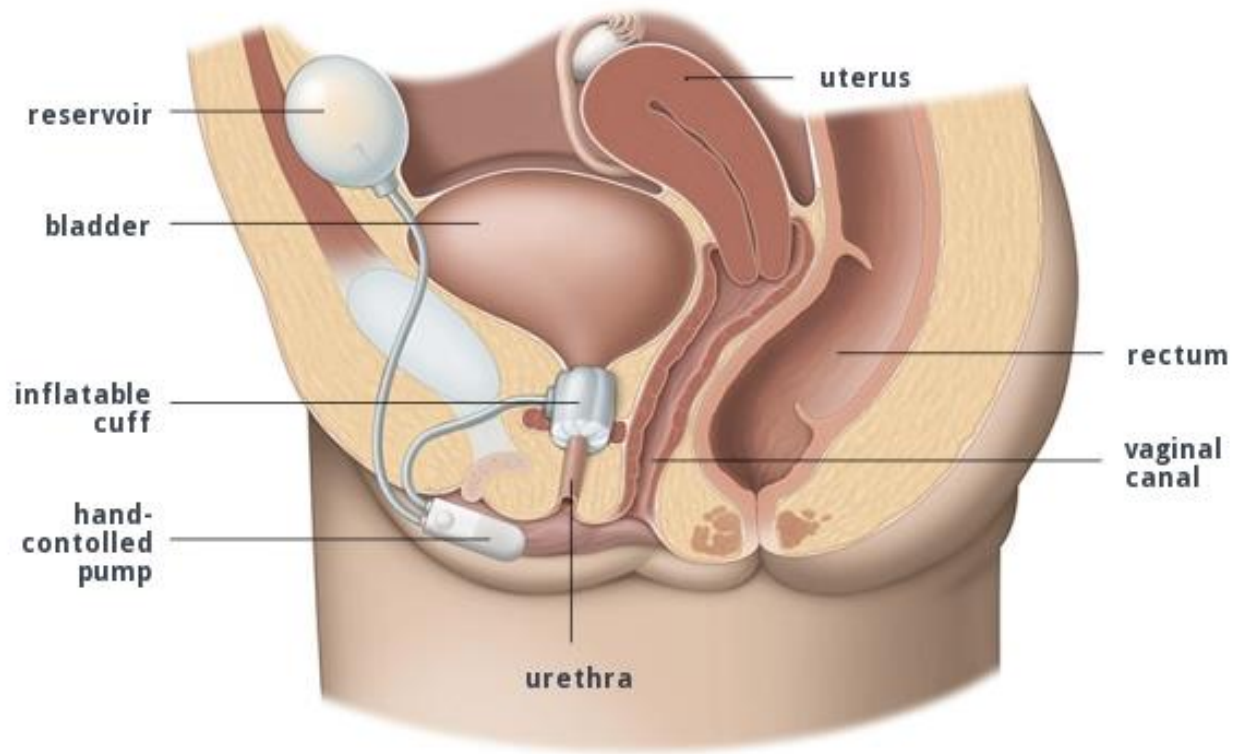
Northern
Alberta
Urology
Centre



Gary J. Gray MSc., M.D., FRCS(C)

Clinical Associate Professor, Division of Urology, Department of Surgery, University of Alberta

Clinical Associate Professor, Department of Obstetrics and Gynecology, University of Alberta



Surgery for female SUI: The ICI algorithm

Casey G. Kowalik^{1,2}  | Roger R. Dmochowski¹  | Elise J. B. De³ 

¹ Department of Urologic Surgery,
Vanderbilt University Medical Center,
Nashville, Tennessee

² Department of Urology, Kansas University
Medical Center, Kansas City, Kansas

³ Department of Urology, Massachusetts
General Hospital, Boston, Massachusetts

Correspondence

Casey G. Kowalik, MD, Kansas University
Medical Center, Department of Urology,
3901 Rainbow Blvd, MS 3016, Kansas
City, KS 66106, 913-588-0799.
Email: casey.kowalik@gmail.com

Introduction: Stress urinary incontinence (SUI) is common in women and can significantly impact quality of life.

Methods: This is a review of the 6th International Consultation on Incontinence (ICI) chapter analyzing level of evidence on surgical treatment of SUI as well as the consensus algorithm that resulted from the detailed work in the committee report as of April 2017. Included studies in this review were selected to highlight the algorithm for management.

Results: Non-operative and surgical treatment options exist; conservative therapies comprise first line management, but if SUI remains bothersome, surgical treatment should be considered. Bulking agents offer a minimally invasive option with moderate short-term success rates. The most commonly performed surgical treatments for SUI are mid-urethral and pubovaginal slings, with high cure rates and patient satisfaction. Retropubic suspension is a more traditional but widely accepted procedure. Single incision sling, adjustable sling, or artificial urinary sphincter may be appropriate in carefully selected patients.

Conclusions: The choice of surgical procedure should be made only after a thorough discussion and shared decision between the patient and surgeon regarding risks, benefits, and alternatives. A trial of conservative therapy should be conducted where relevant. Referral to a specialist should be considered in women with a more complex presentation.

TABLE 1 Summary of ICI recommendations for surgical treatment of female stress urinary incontinence

Procedure	ICI recommendation
Bulking agents	Not appropriate for women desiring a single, durable treatment for SUI (Grade B)
	Option in select women after counseling about limited long-term durability (Grade B)
	May be offered for recurrent or persistent SUI following anti-incontinence surgery with understanding that it is likely an inferior option to repeat anti-incontinence surgery (Grade C)
Autologous fascial sling	Surgical option for primary and recurrent female SUI (Grade A)
Mid-urethral sling	RP MUS is an effective and durable option (Grade A)
	TO MUS is an effective treatment after appropriate counseling about adverse events and limited long-term data (Grade B)
	TO MUS surgical technique (ie, outside-in or inside-out) should be based on surgeon experience and judgement (Grade A/B)
	SIMS is option after counseling about lack of long-term follow-up (Grade B)
Burch colposuspension	Surgical option for primary and recurrent female SUI (Grade A)
	Consider in women undergoing concomitant abdominal surgery (Grade D)
	Minimally invasive technique has limited long-term data and should only be performed by trained surgeons (Grade C)
MMK suspension	Not recommended (Grade A)
Artificial urinary sphincter	Should be limited to highly select women with recurrent SUI and only after extensive counseling about likelihood for revision (Grade C)
Transurethral radiofrequency ablation	Not recommended (Grade D)
Transvaginal and transurethral laser therapy	Not recommended (Grade D)
Vesair™ device	Not recommended (Grade C)
Stem cell therapy	Use remains investigational and should only be offered in setting of a clinical trial (Grade D)

University of Alberta Experience

- Fellowship trained surgeon
- 24 AUS in women over 19 years in
 - 18 open
 - 6 robotic in last 12 months

University of Alberta Experience

- Indications
 - ISD
 - Refractory to all other options:
 - Sling
 - MUS
 - Bulking agent
 - Unwilling/unsuccessful pessary management

University of Alberta Experience

- Outcomes:
- Dry 21
- Improved 2
- Failed 1
- 3 explants:
 - 1 device failure
 - 2 erosions

Open vs Robotic

- Open approach:
 - Lower midline incision
 - Take down all prior suspensions
 - Incise endopelvic fascia
 - Blind dissection behind bladder neck
 - Cystoscopic confirmation of urethral integrity
 - Cuff passage with indwelling 16F foley
 - Labial/abdominal wall control pump placement

Open vs Robotic

- Robotic approach
 - 4 arms + camera
 - Drop bladder
 - Take down prior suspensions
 - Bladder neck dissection direct vision, ProGrasp forceps
 - Cysto confirmation of urethral integrity
 - Cuff plugged, dropped into abdomen
 - Superficial connections

CUAJ – Techniques in Urology

Zhao et al

Techniques – RAL implantation of artificial urinary sphincter

Techniques – Robotic-assisted laparoscopic implantation of artificial urinary sphincter with concomitant hysterectomy and sacrocolpopexy

Yunwei Zhao; Gary Gray; Blair St. Martin
University of Alberta, Edmonton, AB, Canada

Cite as: *Can Urol Assoc J* 2018 November 20; Epub ahead of print.
<http://dx.doi.org/10.5489/cuaj.5580>

Published online November 20, 2018



available at www.sciencedirect.com
journal homepage: www.europeanurology.com

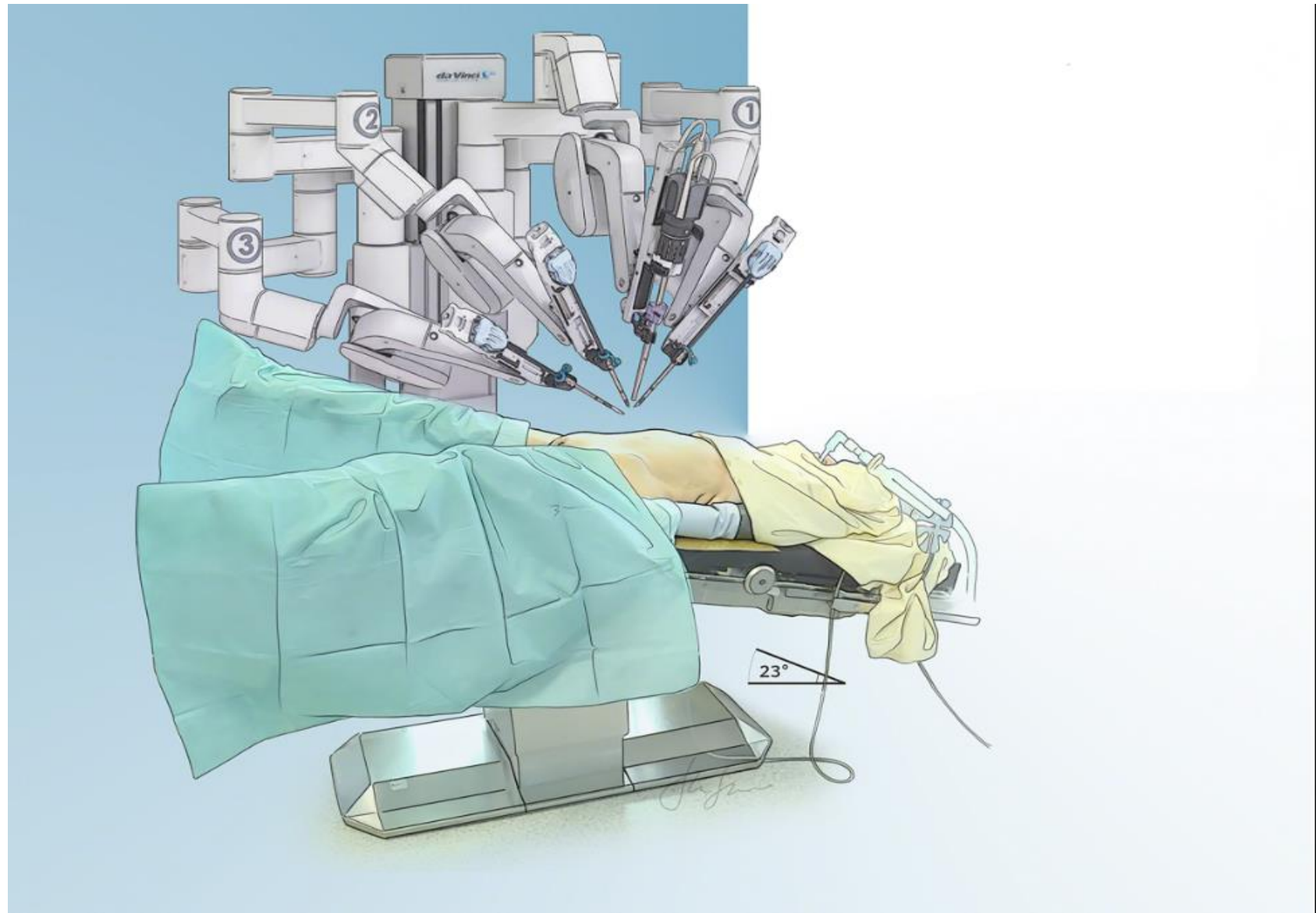


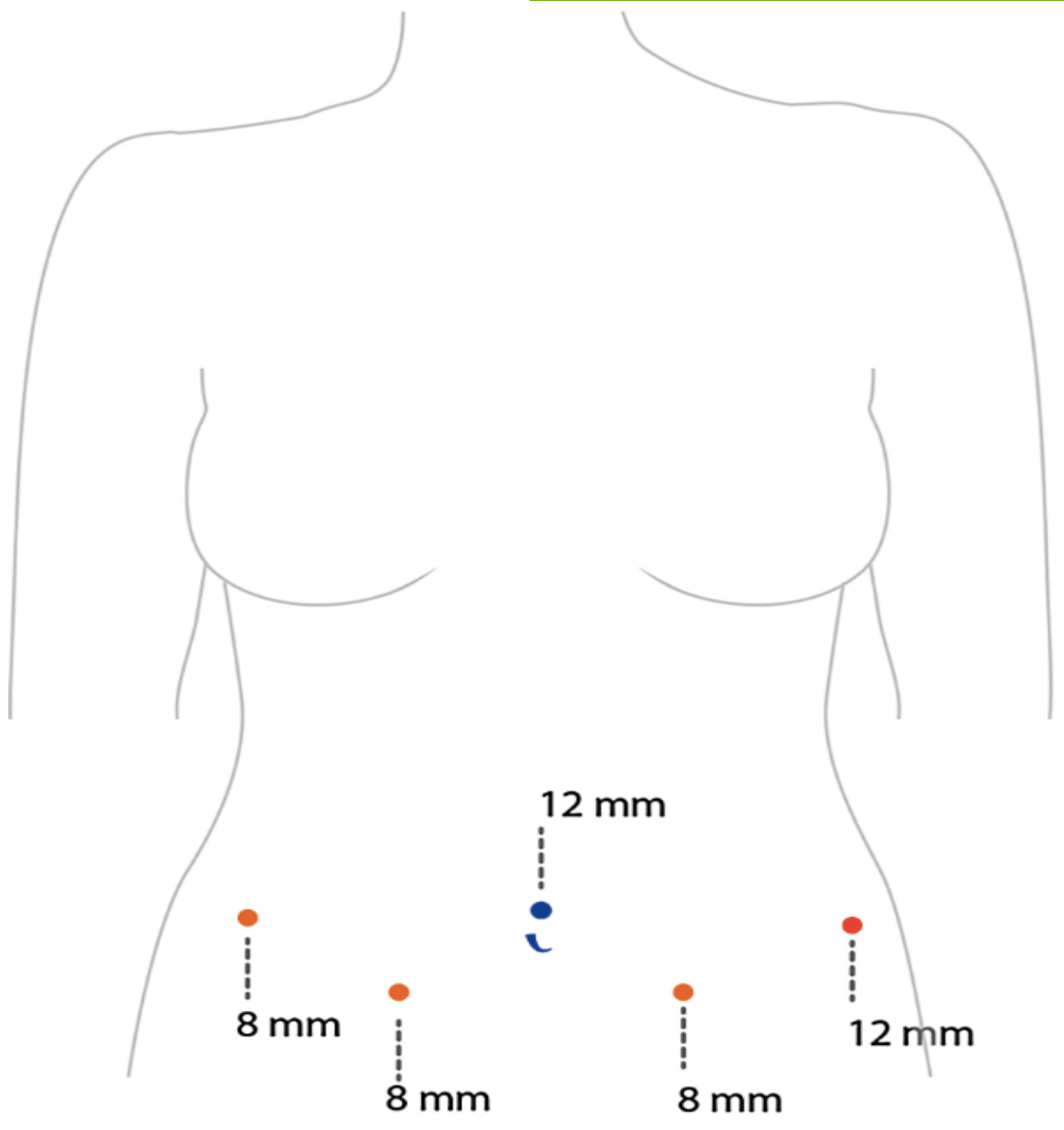
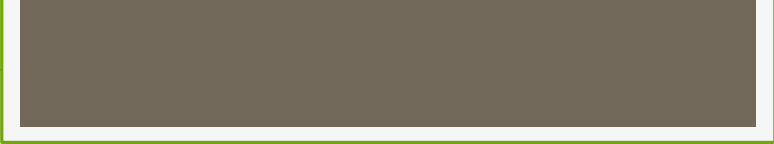
Surgery in Motion

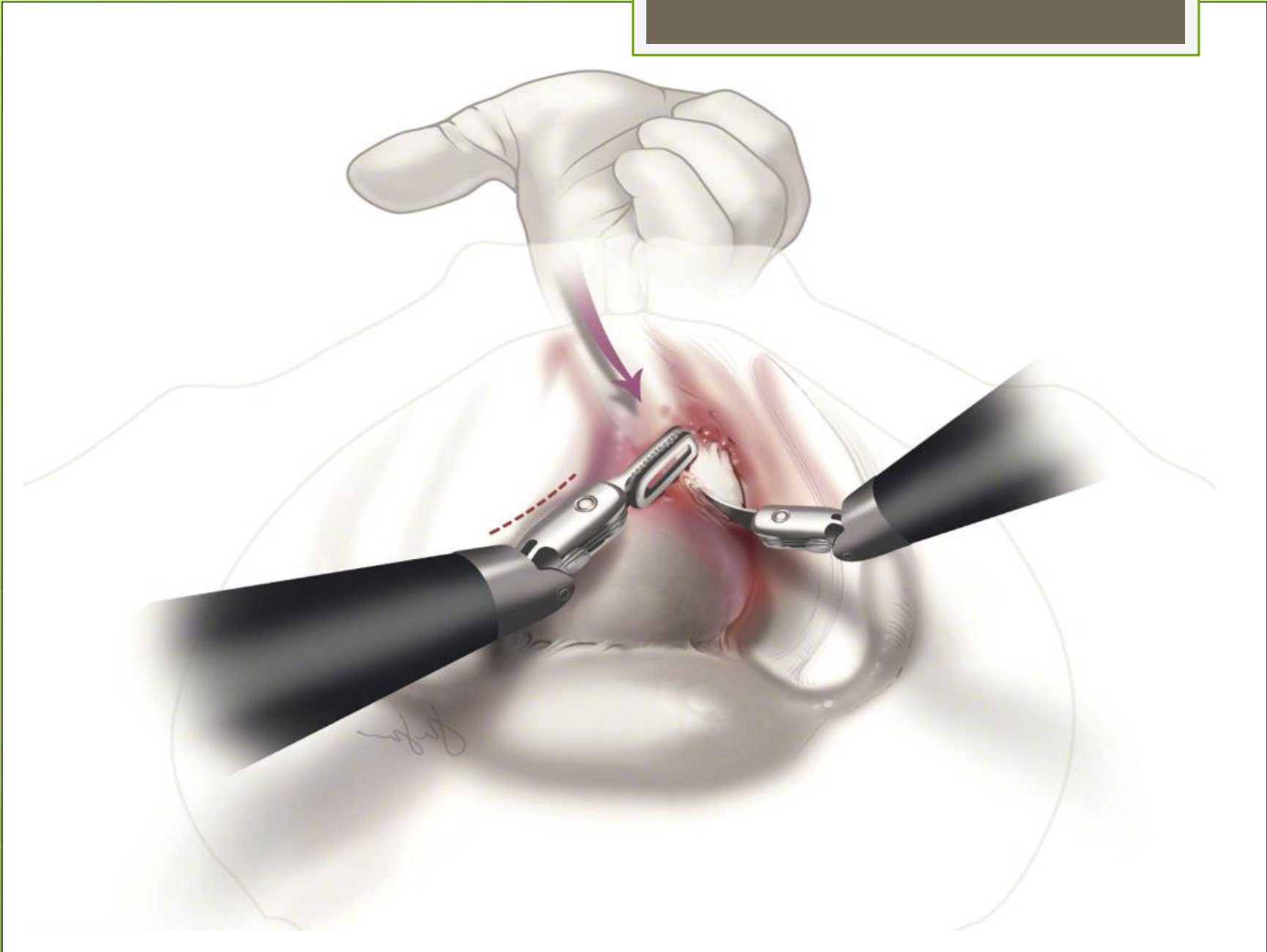
Robot-assisted AMS-800 Artificial Urinary Sphincter Bladder Neck Implantation in Female Patients with Stress Urinary Incontinence

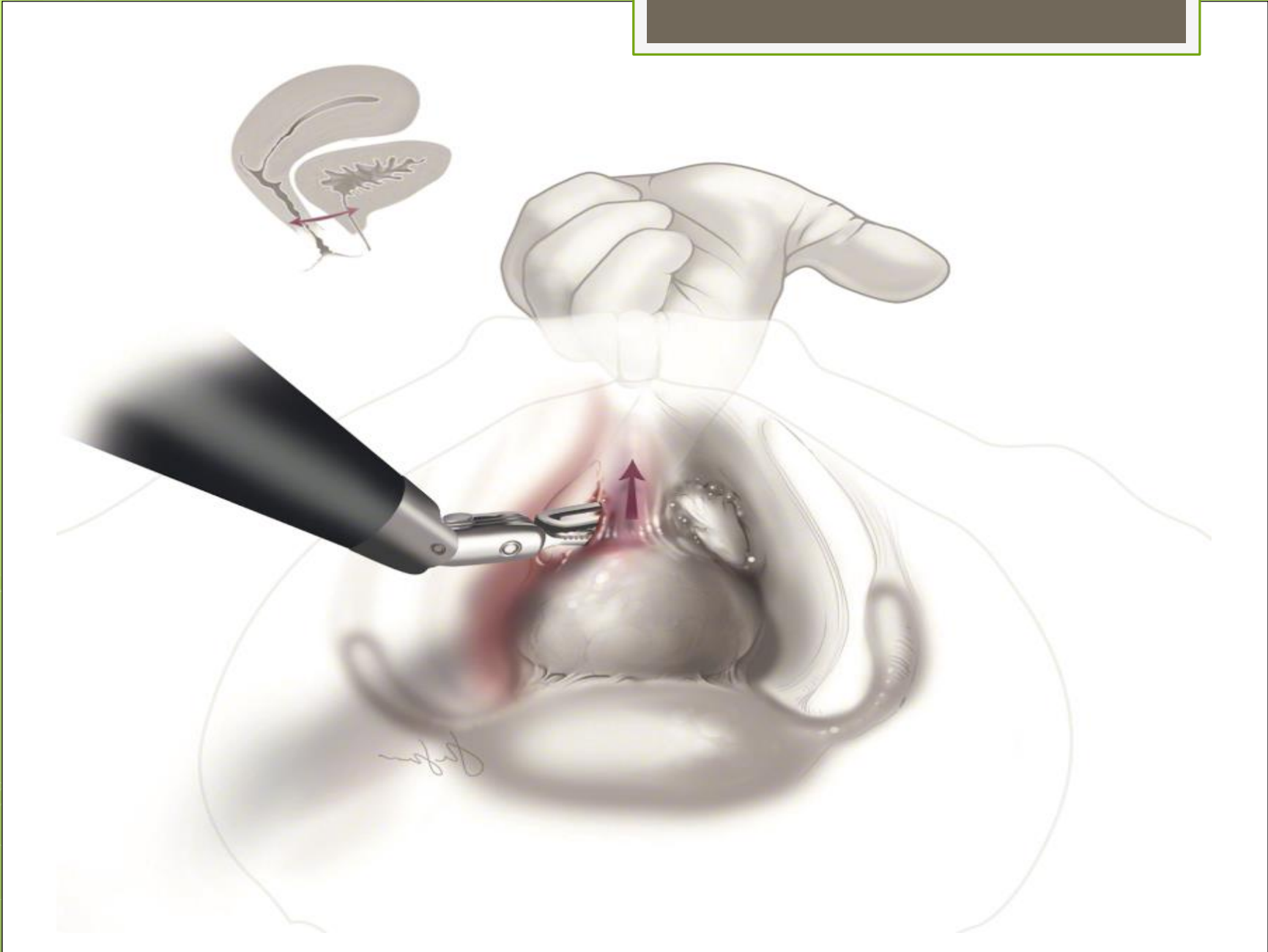
Benoit Peyronnet^{a,}, Grégoire Capon^b, Olivier Belas^c, Andrea Manunta^a, Clément Allenet^b, Juliette Hascoet^a, Jehanne Calves^d, Michel Belas^c, Pierre Callerot^d, Grégoire Robert^b, Aurélien Descazeaud^e, Georges Fournier^d*

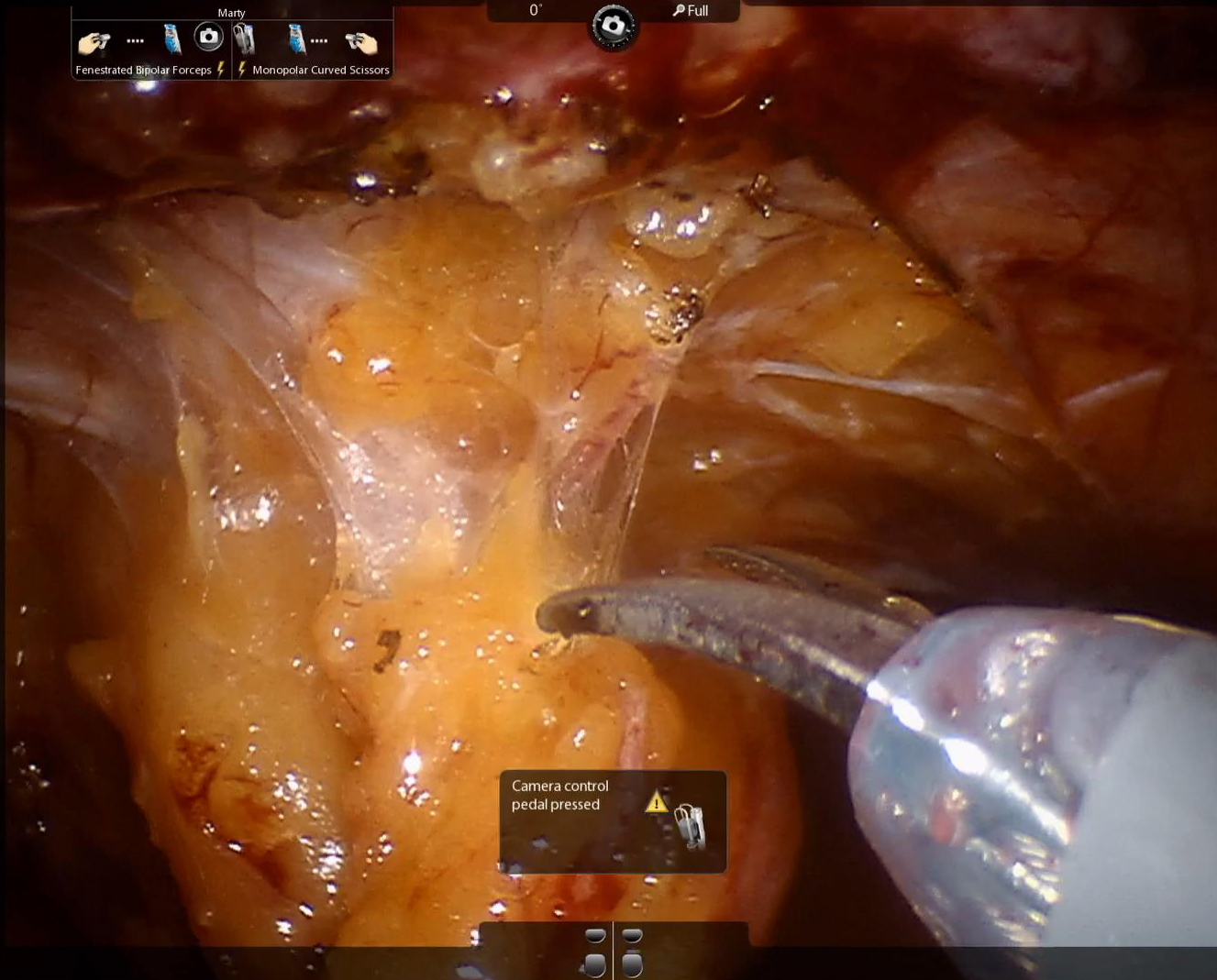
^a Department of Urology, University of Rennes, Rennes, France; ^b Department of Urology, University of Bordeaux, Bordeaux, France; ^c Department of Urology, Pole Santé Sud, Le Mans, France; ^d Department of Urology, University of Brest, Brest, France; ^e Department of Urology, University of Limoges, Limoges, France











AMS-800 Artificial urinary sphincter in female patients with stress urinary incontinence: A systematic review.

Peyronnet B¹, O'Connor E², Khavari R³, Capon G⁴, Manunta A¹, Allue M⁵, Hascoet J¹, Nitti VW⁶, Gamé X⁷, Gilleran J⁸, Castro-Sader L⁵, Cornu JN⁹, Waltregny D¹⁰, Ahyai S¹¹, Chung E¹², Elliott DS¹³, Fournier G¹⁴, Brucker BM⁶.

+ Author information

Abstract

AIMS: To perform a systematic review of studies reporting the outcomes of AMS-800 artificial urinary sphincter (AUS) implantation in female patients with stress urinary incontinence (SUI) resulting from intrinsic sphincter deficiency (ISD).

METHODS: A systematic literature search of the Medline and Embase databases was performed in June 2018 in accordance with the PRISMA statement. No time limit was used. The protocol was registered in PROSPERO (CRD42018099612). Study selection and data extraction were performed by two independent reviewers.

RESULTS: Of 886 records screened, 17 were included. All were retrospective or prospective non-comparative case series. One study reported on vaginal AUS implantation, 11 on open AUS implantation, two on laparoscopic AUS implantation, two on robot-assisted AUS implantation and one compared open and robot-assisted implantations. The vast majority of patients had undergone at least one anti-incontinence surgical procedure prior to AUS implantation (69.1-100%). The intraoperative bladder neck injury rates ranged from 0% to 43.8% and the intraoperative vaginal injury rates ranged from 0 to 25%. After mean follow-up periods ranging from 5 to 204 months, the complete continence rates ranged from 61.1% to 100%. The rates of explantation, erosion and mechanical failure varied from 0% to 45.3%, 0% to 22.2% and 0% to 44.1%, respectively.

CONCLUSIONS: AMS-800 AUS can provide excellent functional outcomes in female patients with SUI resulting from ISD but at the cost of a relatively high morbidity. High level of evidence studies are needed to help better define the role of AUS in the female SUI armamentarium.

Bottom Line

- Excellent option for refractory ISD
- Robotic approach may make more palatable
- European experience is supportive