

Preservation of Sexual Function in Lap. Radical Prostatectomy

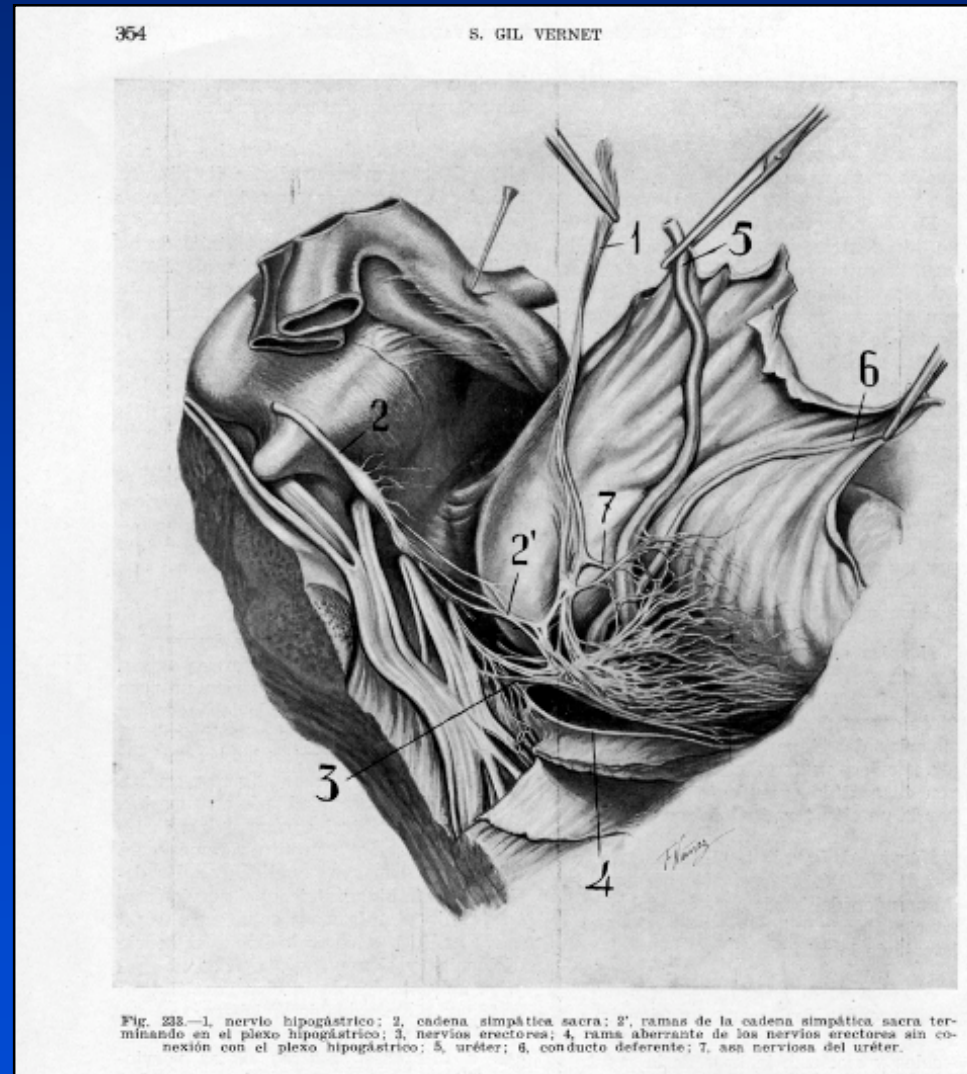
Bertrand Guillonneau

Cornell University and State University of New York
Head, Minimally Invasive Urology Section
MSKCC, New York



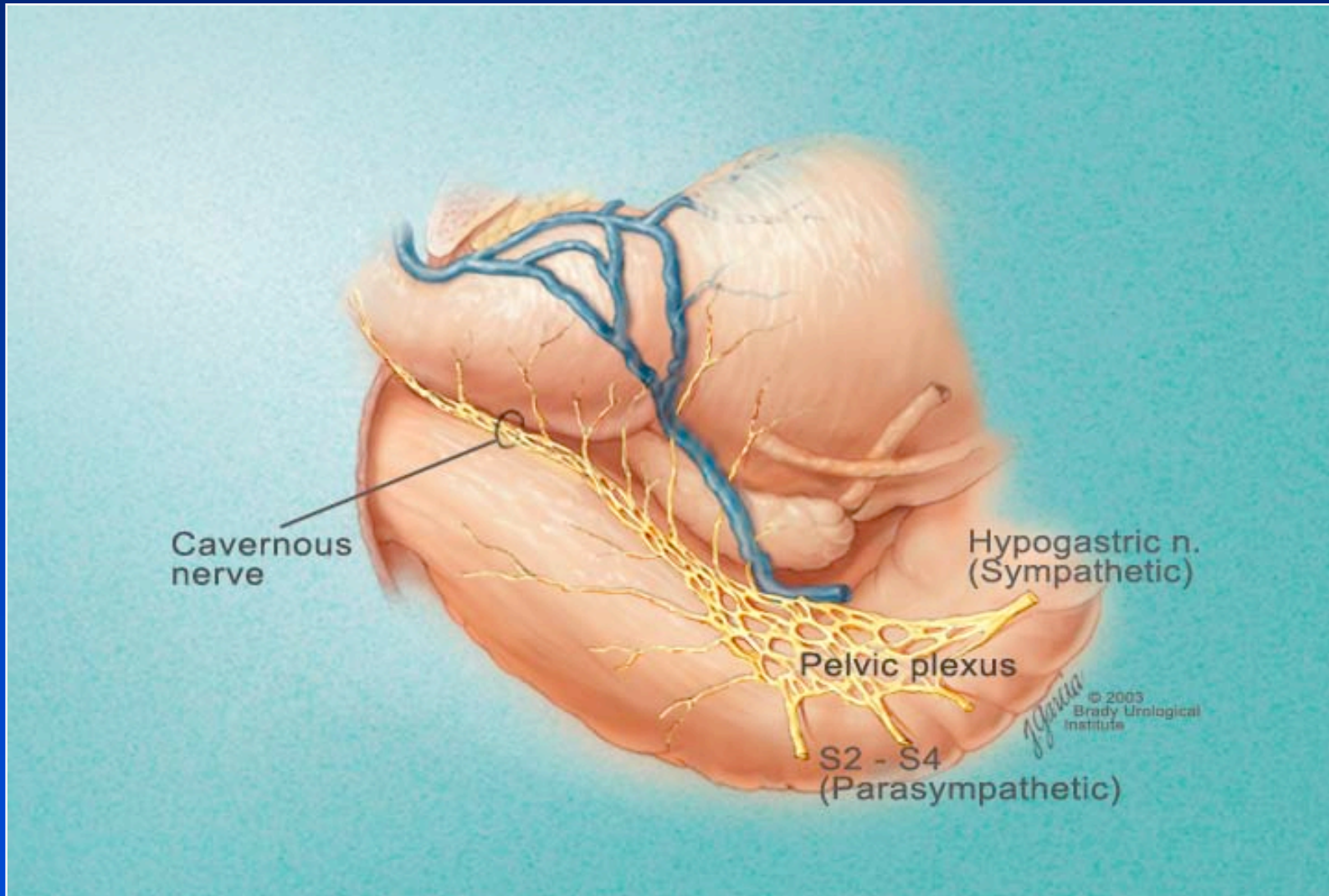
- 1. Pelvic & prostatic innervation**
- 2. Prostatic fascia**
- 3. Pudendal arteries**
- 4. Oncologic risk**
- 5. Functional results**

Pelvic innervation



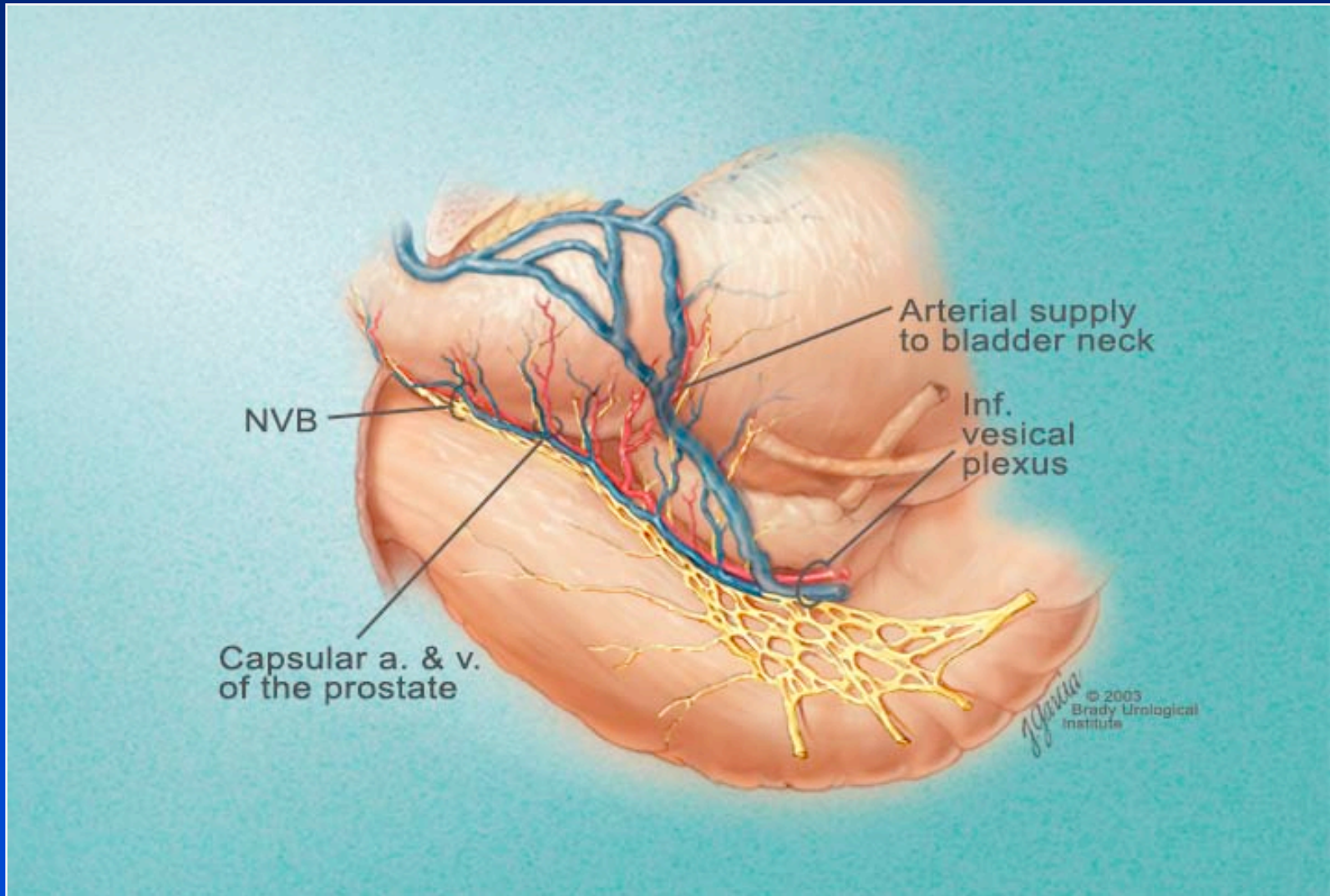
JM Gil-Vernet

Prostatic innervation



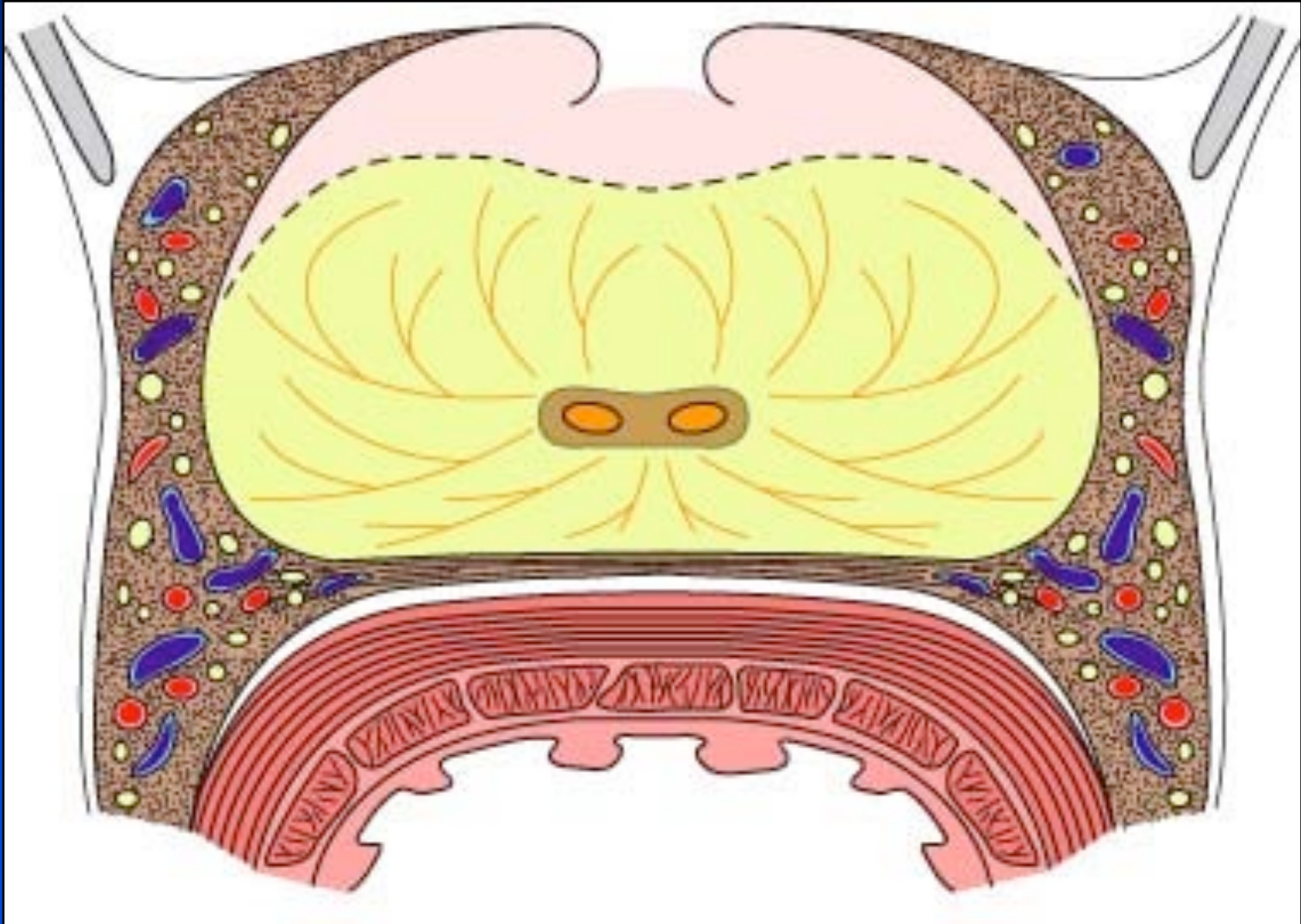
P. Walsh

Prostatic innervation - the NV Bundle



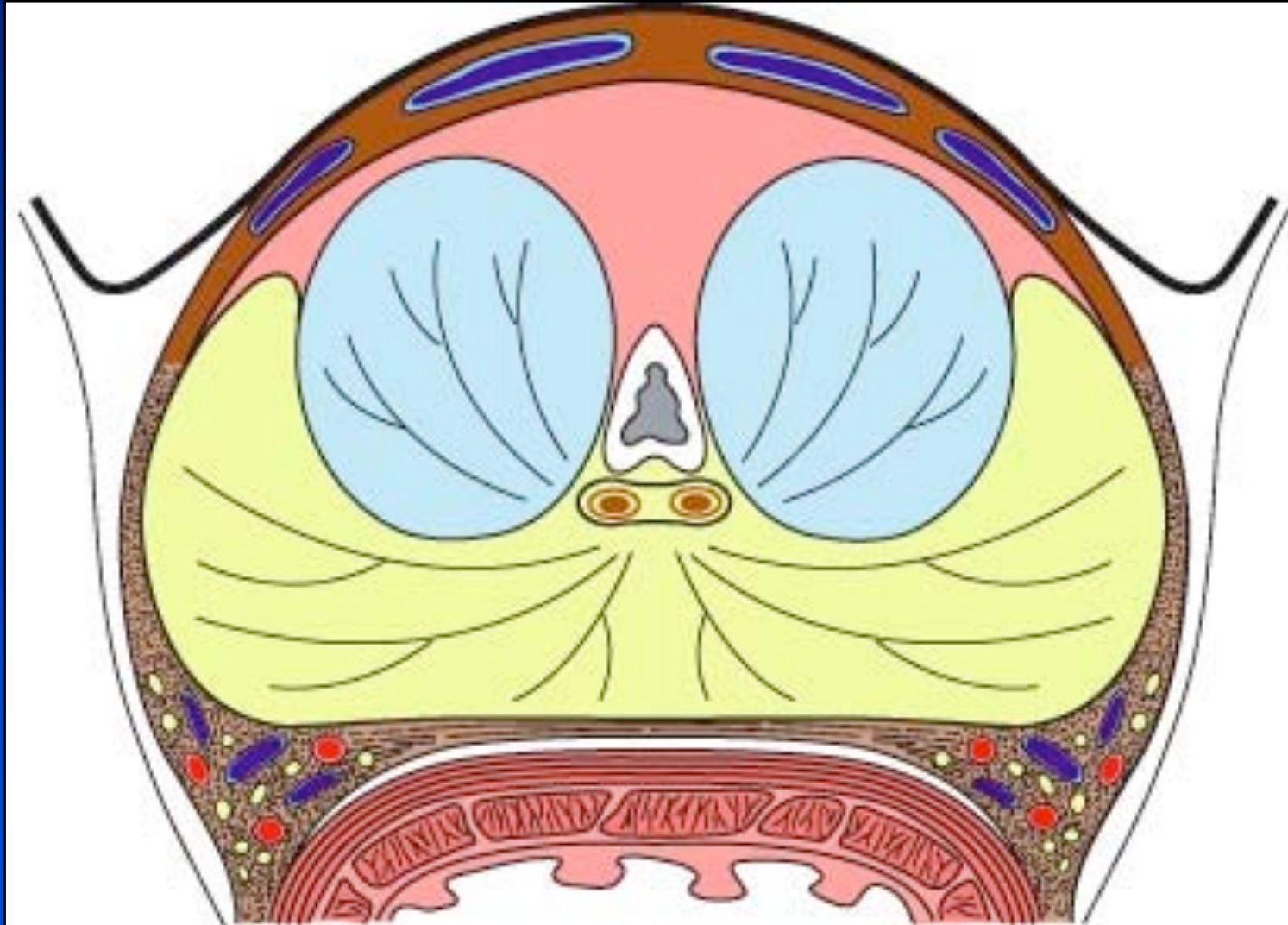
P. Walsh

NV Bundles - Transversal base



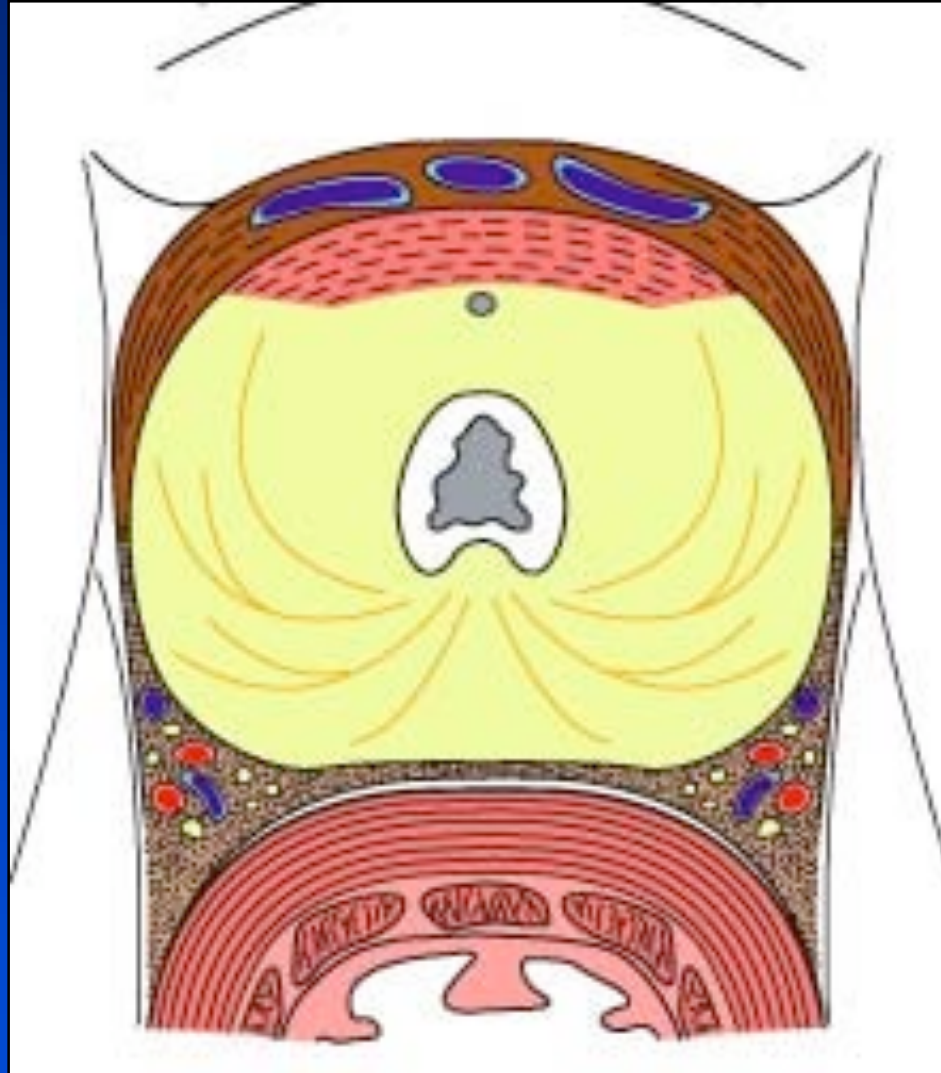
A. Villers and B. Myers

NV Bundles - Transversal mid



A. Villers and B. Myers

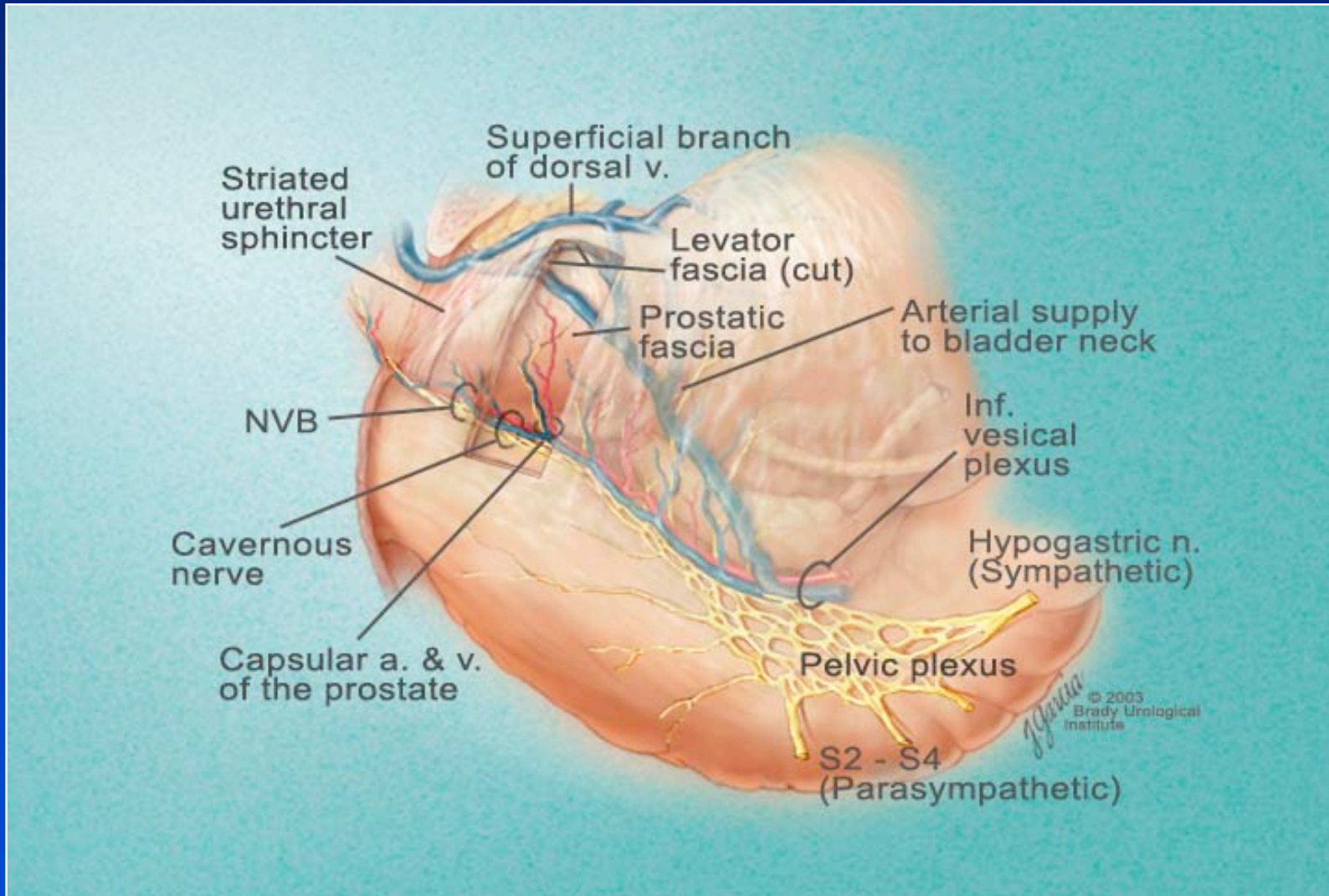
NV Bundles - Transversal apex



A. Villers and B. Myers

1. Pelvic & prostatic Innervation
2. Prostatic fascia
3. Pudendal arteries
4. Oncologic risk
5. Functional results

Prostatic Fascia



P. Walsh



1. Pelvic & prostatic Innervation
2. Prostatic fascia
3. Pudendal arteries
4. Oncologic risk
5. Functional results

Penile vascularization

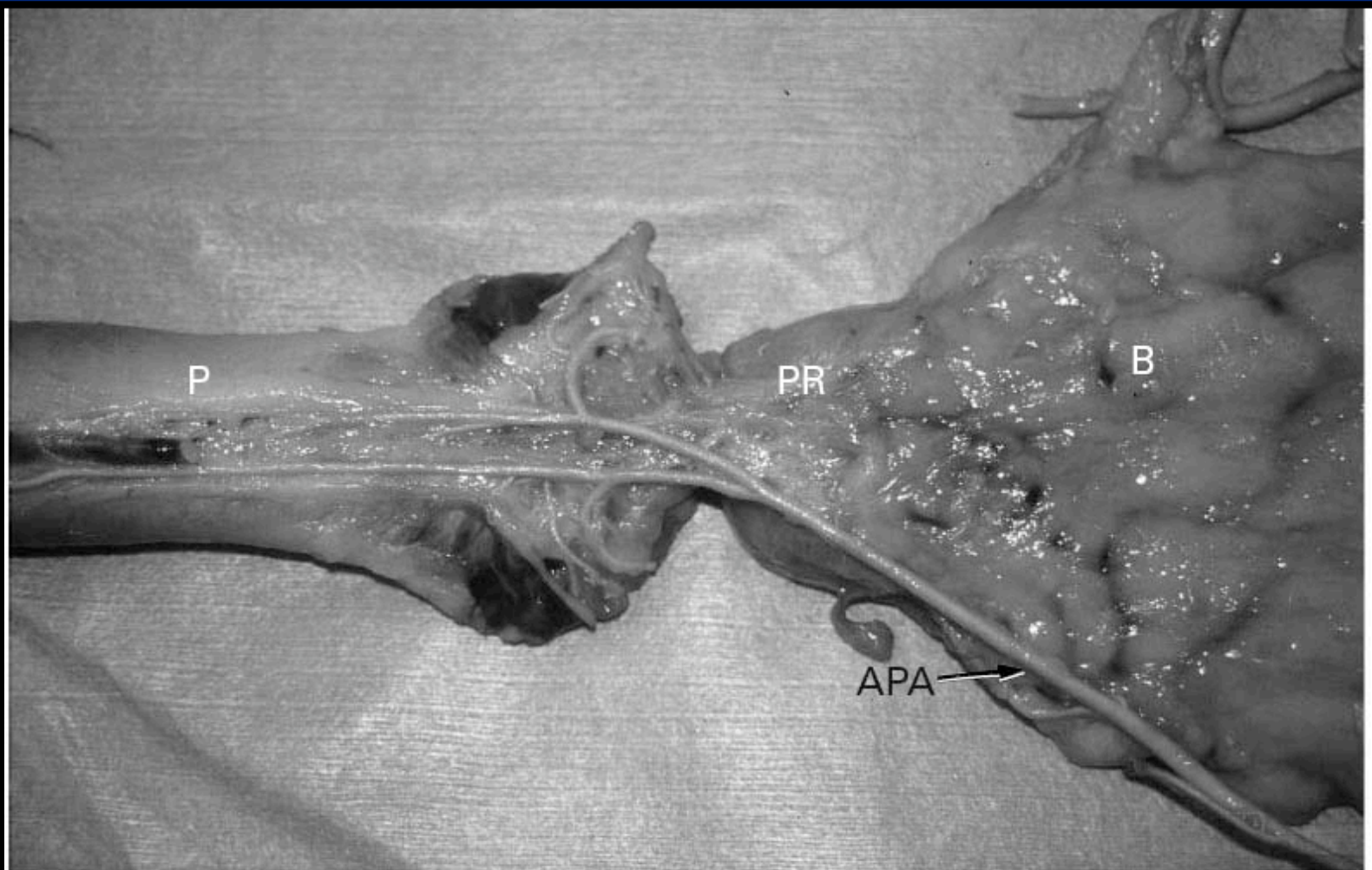
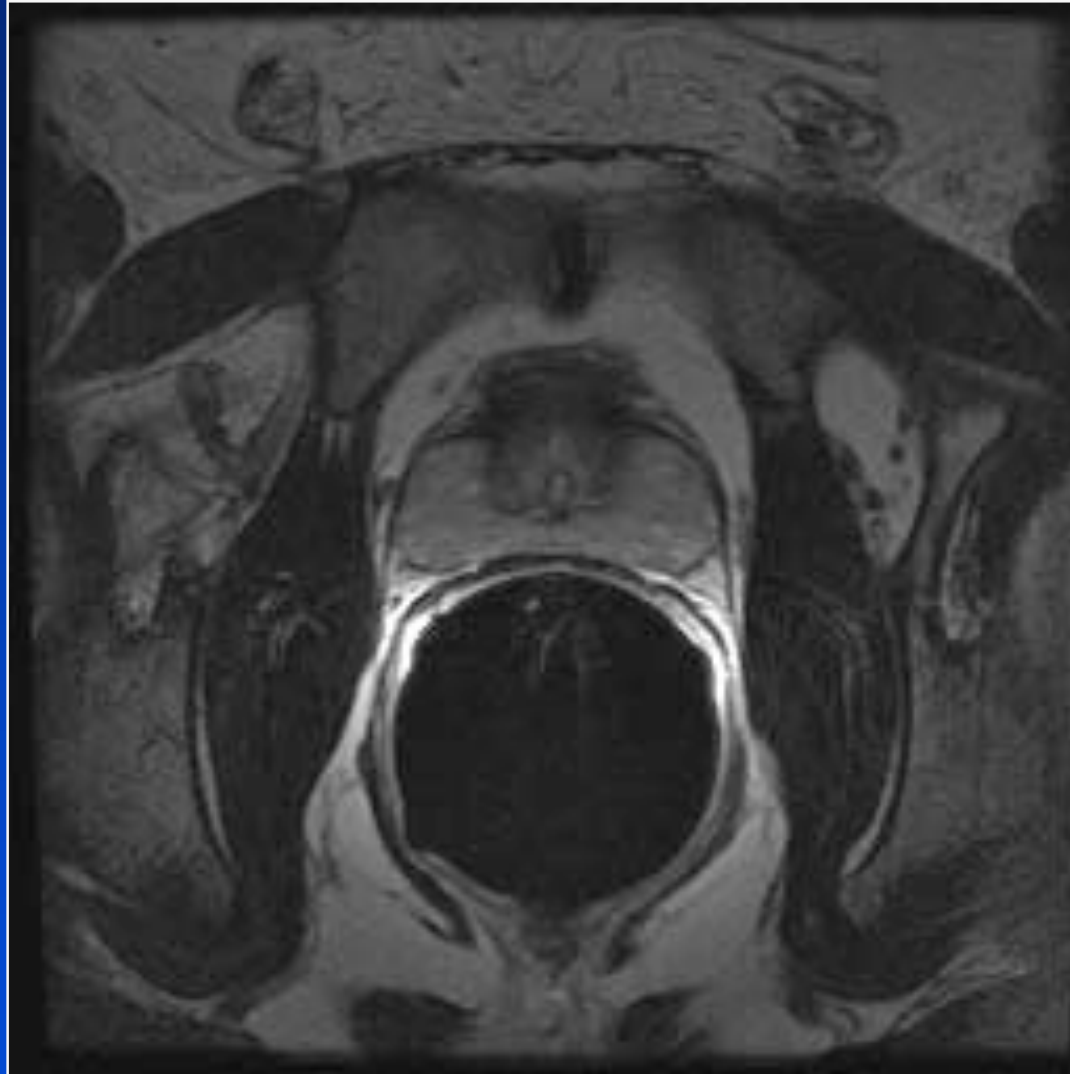


Fig. 5. Accessory pudendal artery (APA) arising from an inferior vesical artery (type III). Human anatomical dissection after arterial cast. The APA is the exclusive arterial supply of the penis (P). PR, prostate; B, bladder.

Accessory pudendal a. : Lateral



H. Hricak

Penile arteries in humans Origin - Distribution - Variations

S. Droupy¹⁻², G. Benoît¹⁻², F. Giuliano² and A. Jardin²

¹ Laboratoire d'Anatomie, UFR Biomédicale des Saints-Pères, Université René Descartes, rue des Saints-Pères, F-75006 Paris, France

² Laboratoire de chirurgie expérimentale, - Université Paris-Sud, 63, rue Gabriel Péri, F-94270 Le Kremlin Bicêtre, France

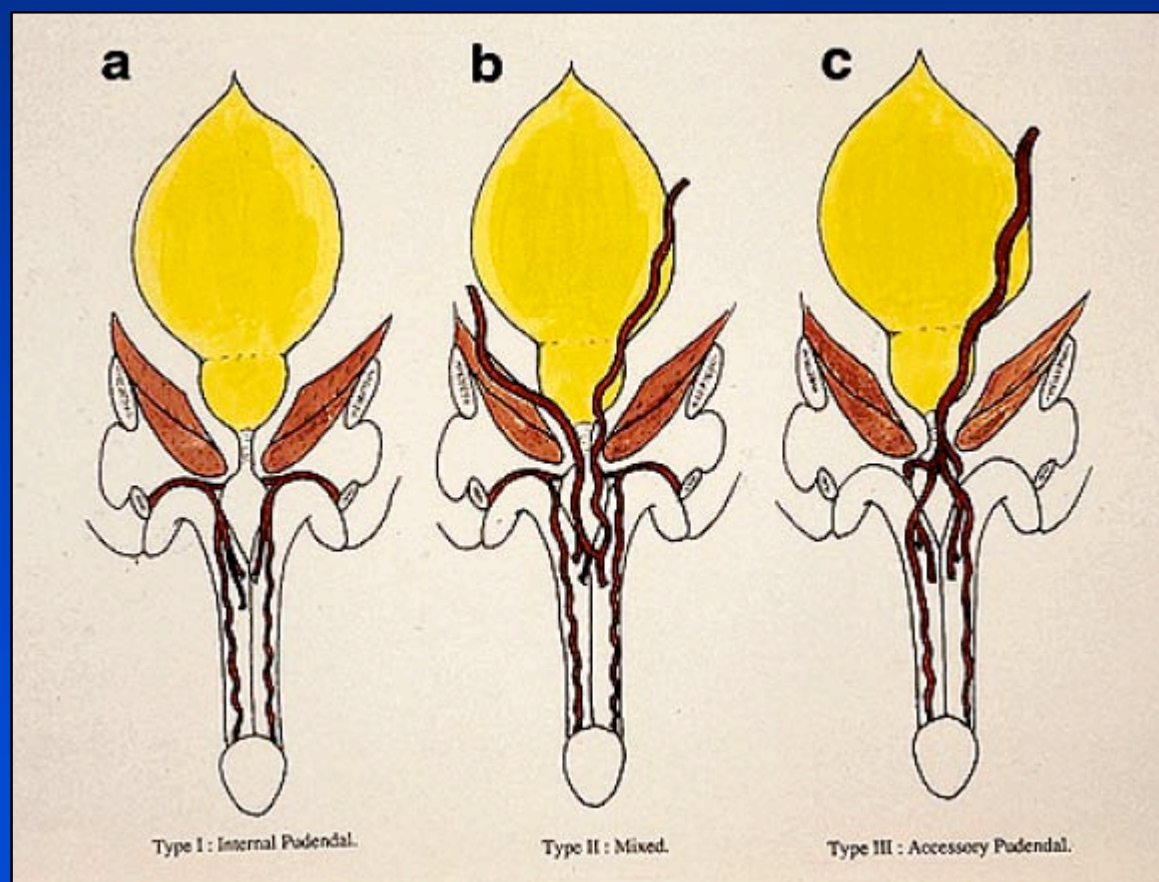
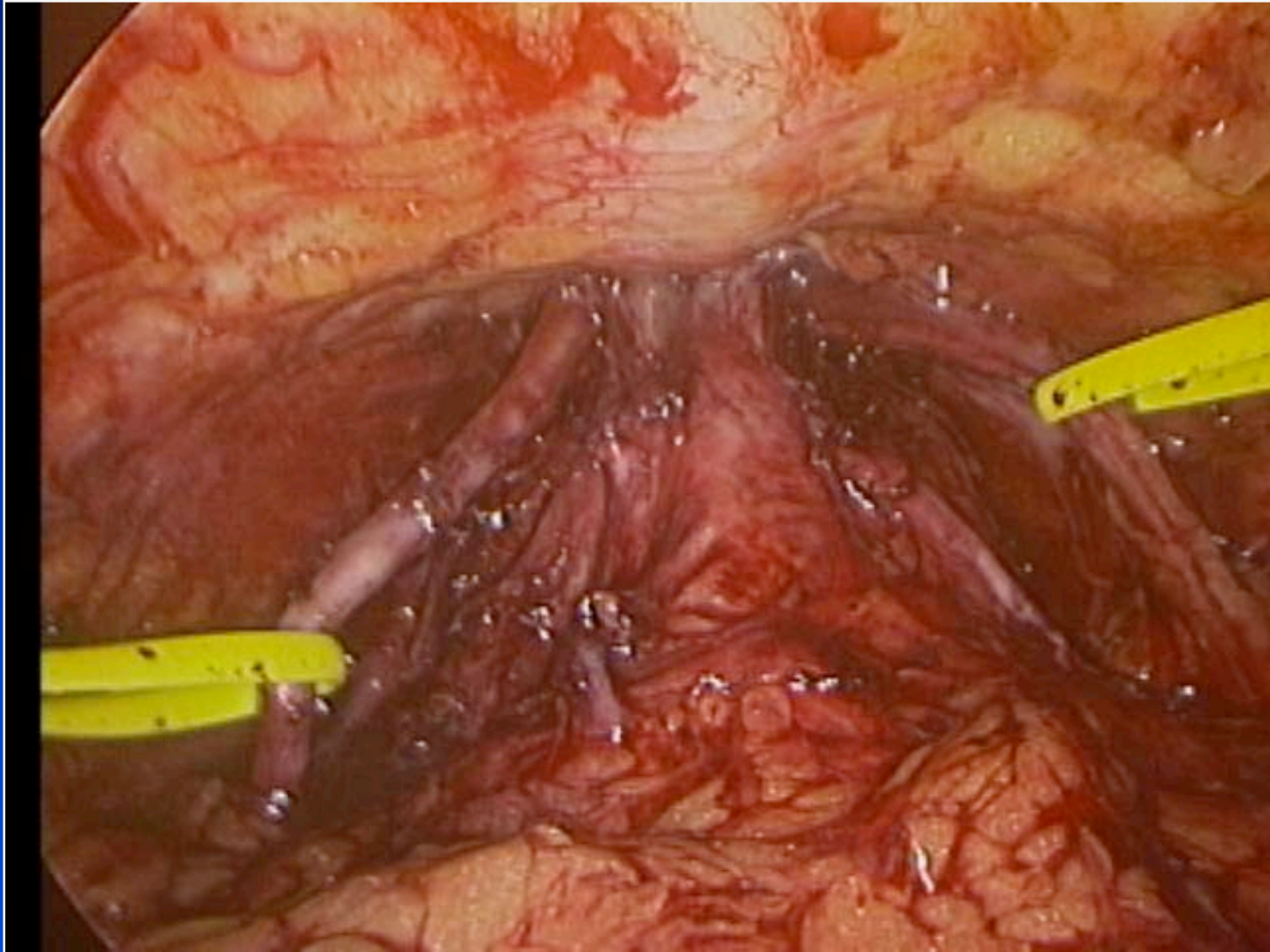


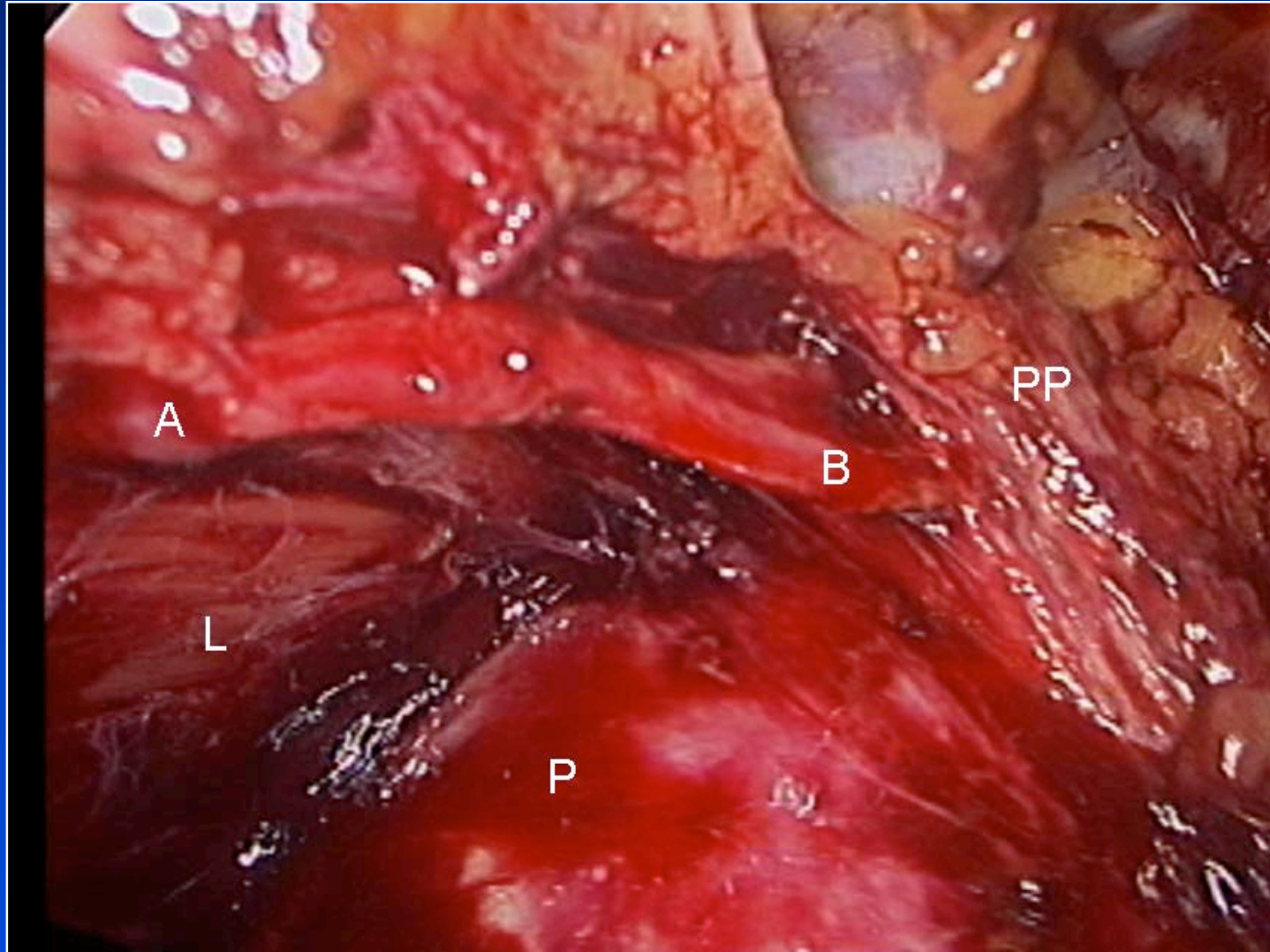
Table 1. Relations between arterial variation and atherosclerosis

	N	Mean age	Mean extent of atherosclerosis
Type I	3/20	78 ± 5	2.3 ± 0.5
Type II	14/20	72 ± 7	2.3 ± 0.5
Type III	3/20	62 ± 13	1.6 ± 0.6

Accessory pudendal a. : Lateral



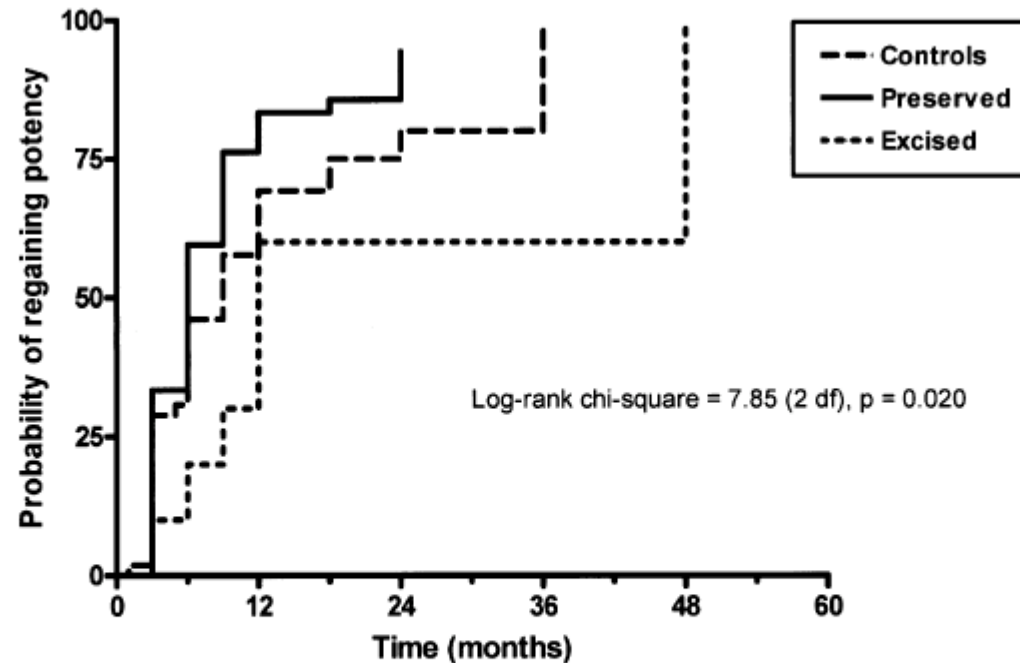
Accessory pudendal a. : Apical



PRESERVATION OF ACCESSORY PUDENDAL ARTERIES DURING RADICAL RETROPUBIC PROSTATECTOMY: SURGICAL TECHNIQUE AND RESULTS

CRAIG G. ROGERS, BRUCE P. TROCK, AND PATRICK C. WALSH

UROLOGY 64: 148-151, 2004. © 2004 Elsevier Inc.



Number of patients:

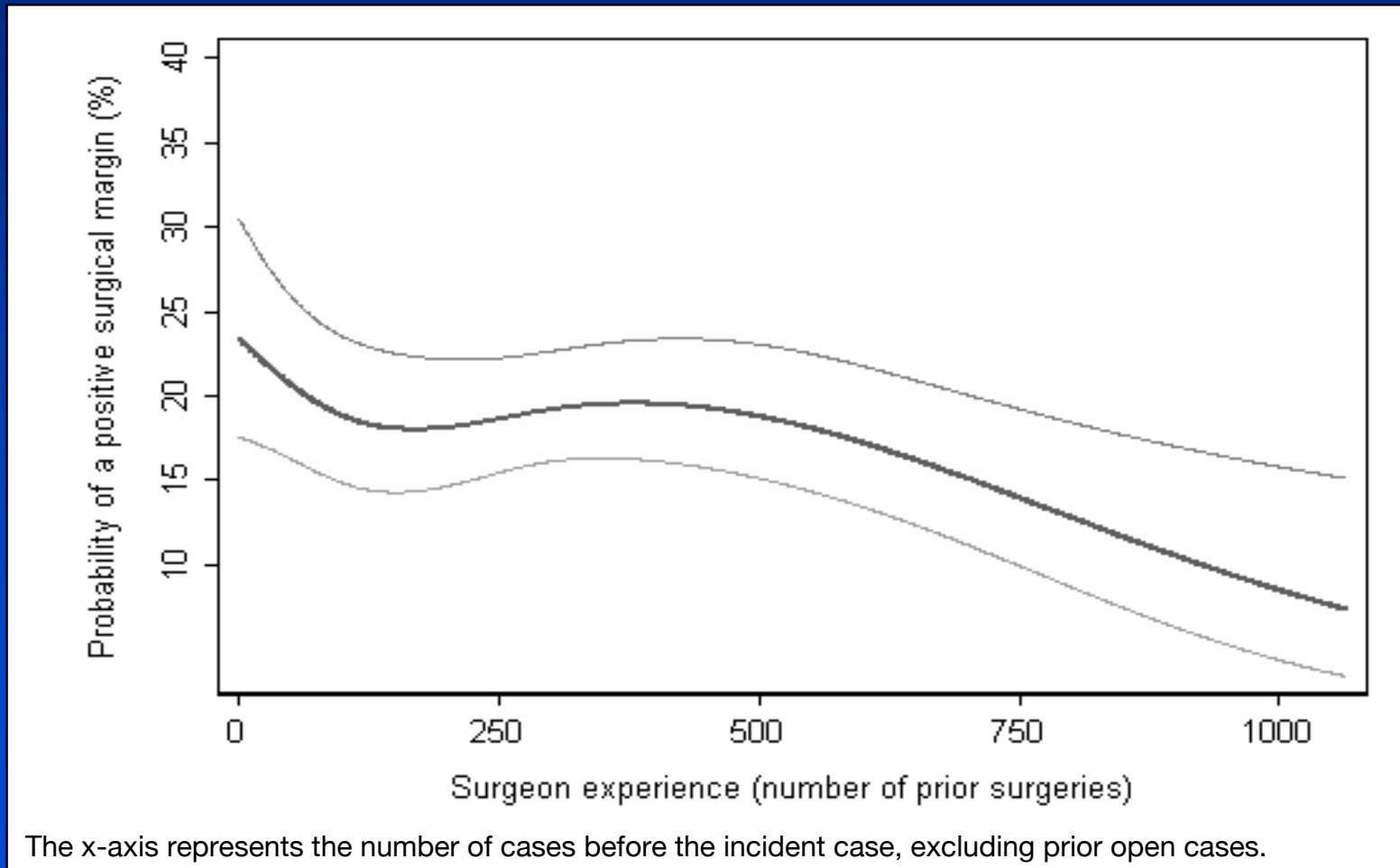
Controls	52	22	10	1	0
Preserved	42	10	5	0	0
Excised	10	7	4	1	1

FIGURE 1. Time to potency among radical retropubic prostatectomy patients with no accessory arteries (controls) or with accessory arteries preserved or excised.

1. Pelvic & prostatic Innervation
2. Prostatic fascia
3. Pudendal arteries
4. **Oncologic risk**
5. Functional results

Learning Curve / +SM controlling for preoperative PSA,

pathologic Gleason grade, pathologic stage and year of surgery. 41 surgeons from 11 institutions both from Europe and USA. The patients characteristics (age, date of surgery,) surgeon experience (number of open radical prostatectomy performed) and usual tumor characteristics (PSA, tumor Gleason grade, tumor stage, positive margin status) were analyzed.



On multivariable analysis, higher surgeon experience was significantly associated with a lower risk of positive surgical margins ($p=0.03$). Secin F, 2008, in progress

Multivariate analysis / +SM

	Odds Ratio	95% C.I.	P value
Preoperative PSA	1.15	1.04, 1.27	0.01
Biopsy Gleason sum			
≤6	Reference	--	--
7	2.42	1.07, 5.46	0.03
8+	1.73	0.25, 12.14	0.6
Neurovascular bundle dissection			
Intra-fascial	Reference	--	--
Extra-fascial	3.79	1.47, 9.82	0.01
Resected	1.39	0.3, 6.37	0.7
Prostate volume on MRI	0.96	0.93, 0.99	0.01
ECE suspected on MRI			
No	Reference	--	--
Yes	0.97	0.41, 2.29	0.9
Clinical stage			
Absent nodule (T1c)	Reference	--	--
Palpable nodule (T2 or T3)	0.59	0.2, 1.77	0.3

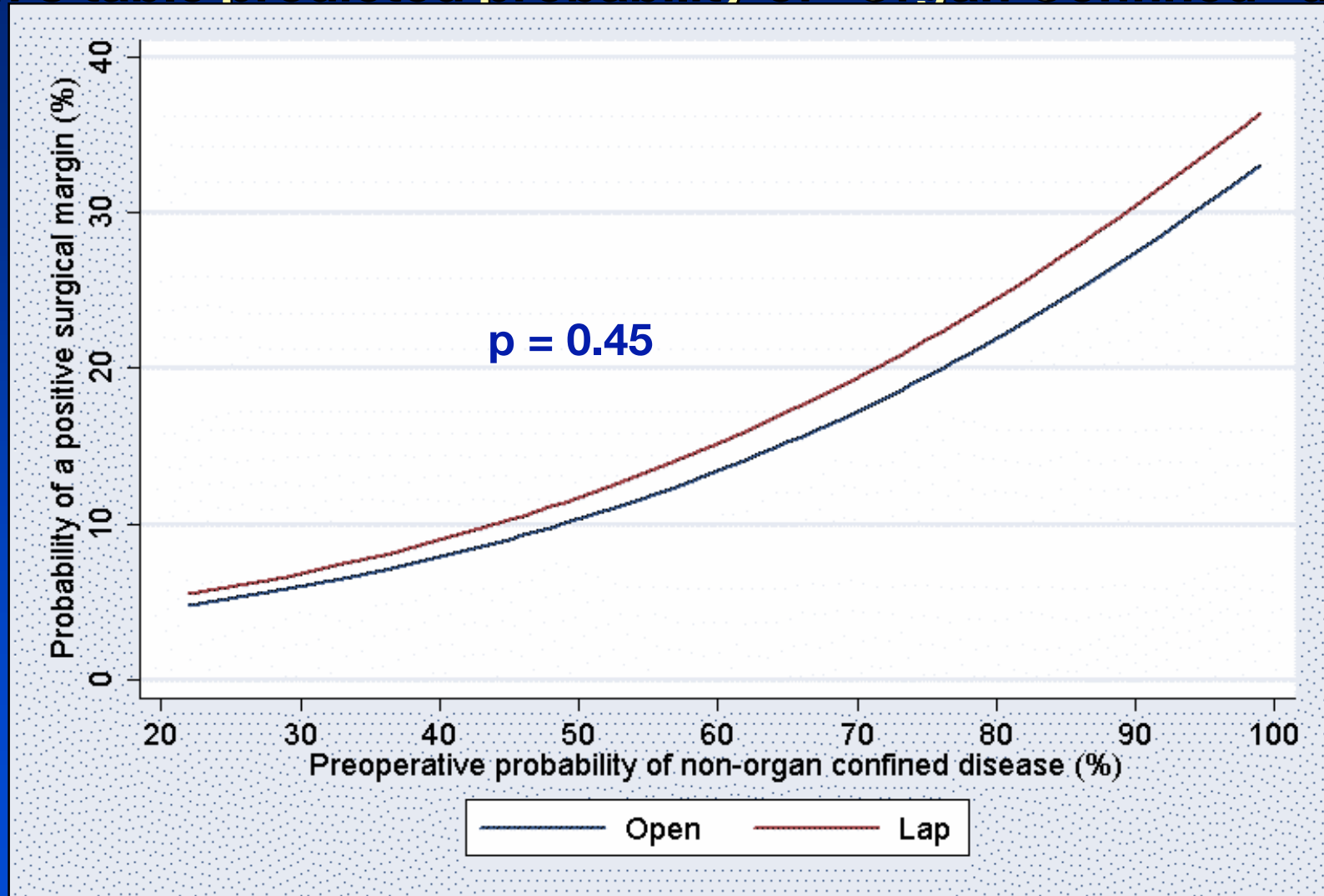
PREOPERATIVE AND INTRAOPERATIVE RISK FACTORS FOR SIDE-SPECIFIC POSITIVE SURGICAL MARGINS IN PATIENTS WITH PROSTATE CANCER TREATED BY LAPAROSCOPIC RADICAL PROSTATECTOMY.

Secin F, Serio A, Bianco F, Karanikolas N, Shavegan B, Vickers A, Touijer K, Guillonneau B. Eur Urol. 2007



Risk-adjusted analysis of PSM

Partin's table predicted probability of "Organ Confined" disease



(Odds ratio: 1.156, 95% CI: 0.79 – 1

- 1. Pelvic & prostatic Innervation**
- 2. Prostatic fascia**
- 3. Pudendal arteries**
- 4. Oncologic risk**
- 5. Functional results**

Potency

- All pre-operatively potent patients
- Assessed with or without PDE 5 inhibitors

Definition of “potency”

During the last four weeks, when you had erections with sexual stimulation, how often were your erections hard enough for penetration (entering your partner)?

1. No sexual activity
2. Almost never / never
3. A few times (much less than half of time)
4. Sometimes (about half of the time)
5. Most times (much more than half of the time)
6. Almost always / always

Bilateral NVB sparing

