

# The prostate

Surgical Management

Geert Martens



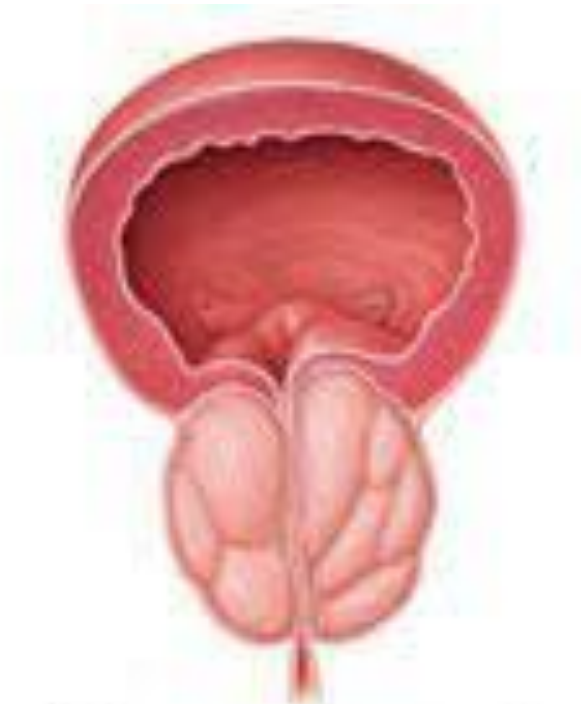
# **BPH**

Benign Prostatic Hyperplasia

# Prostate Adenoma



Normale prostaat



Vergrote prostaat

# **BPH**

## **surgical treatment goals**

- Relieve bladder outlet obstruction
- Minimal invasive
- Preservation continence
- Preservation sexual function

# Treatment options

**rezum**

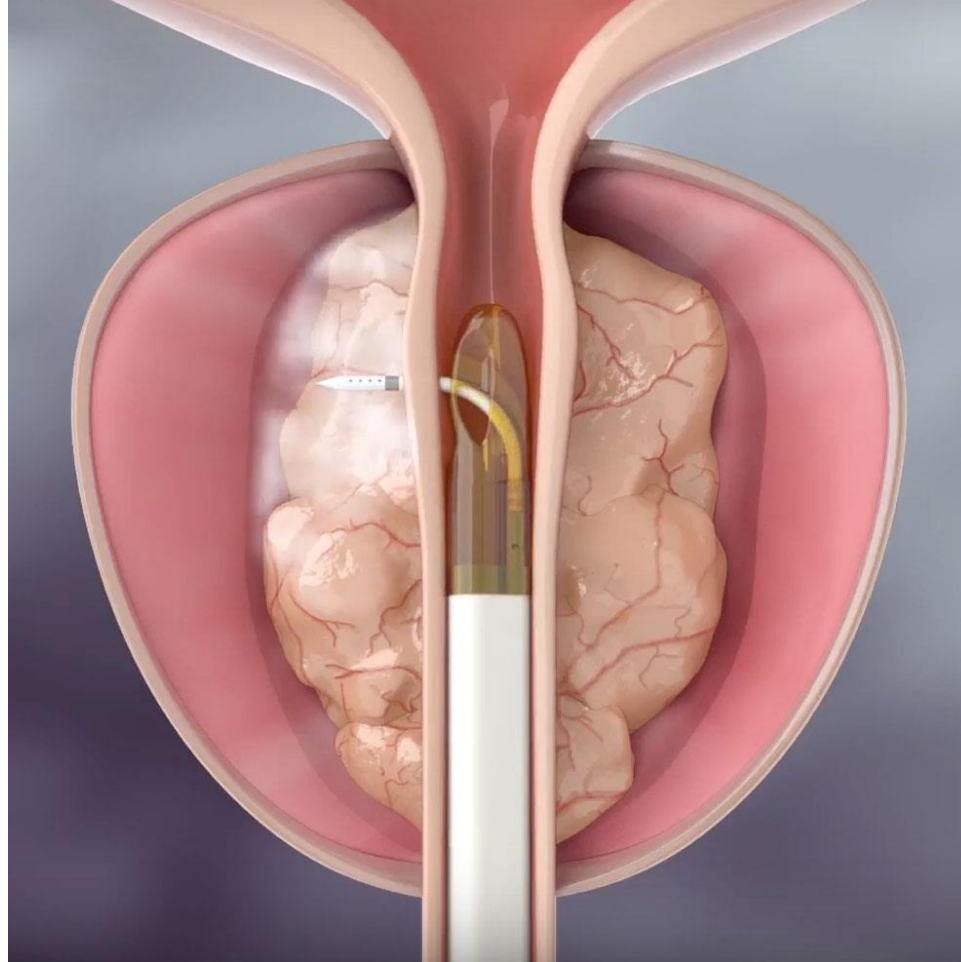
**TURP**

**HOLEP**

**RAPA**



# REZUM



**Rezum = water vapor therapy**



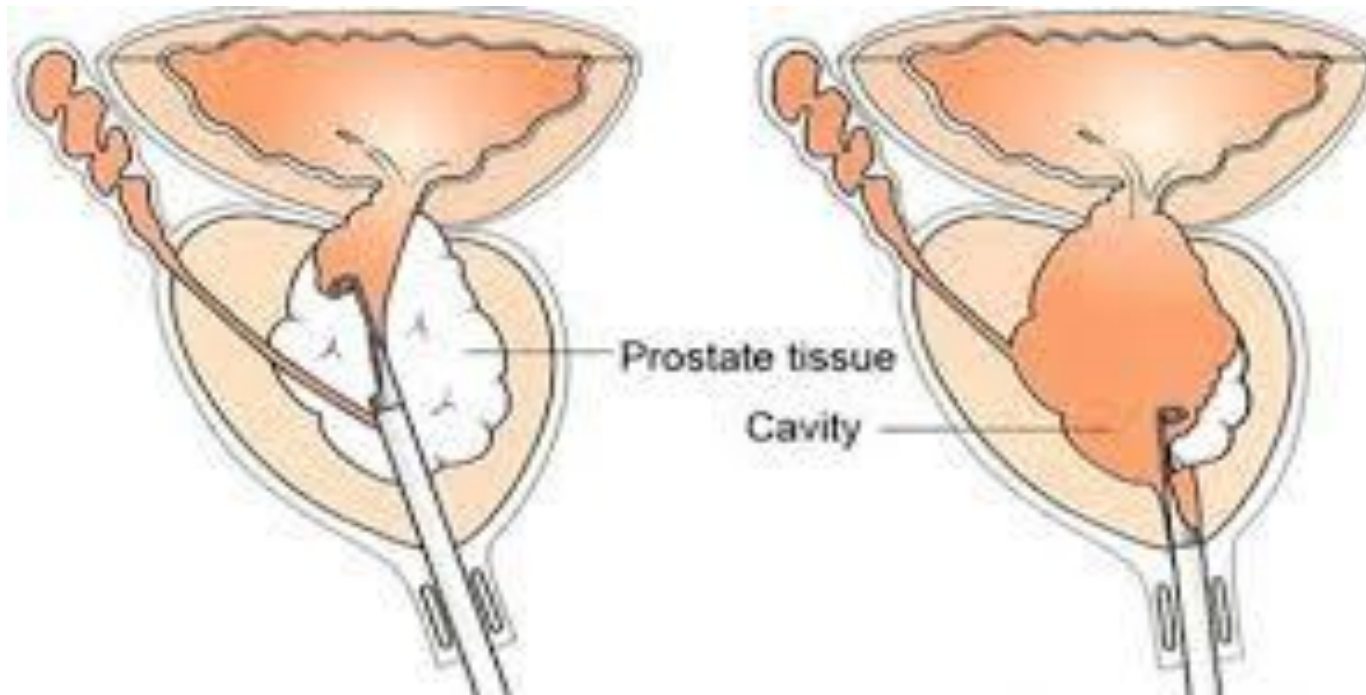
# rezum



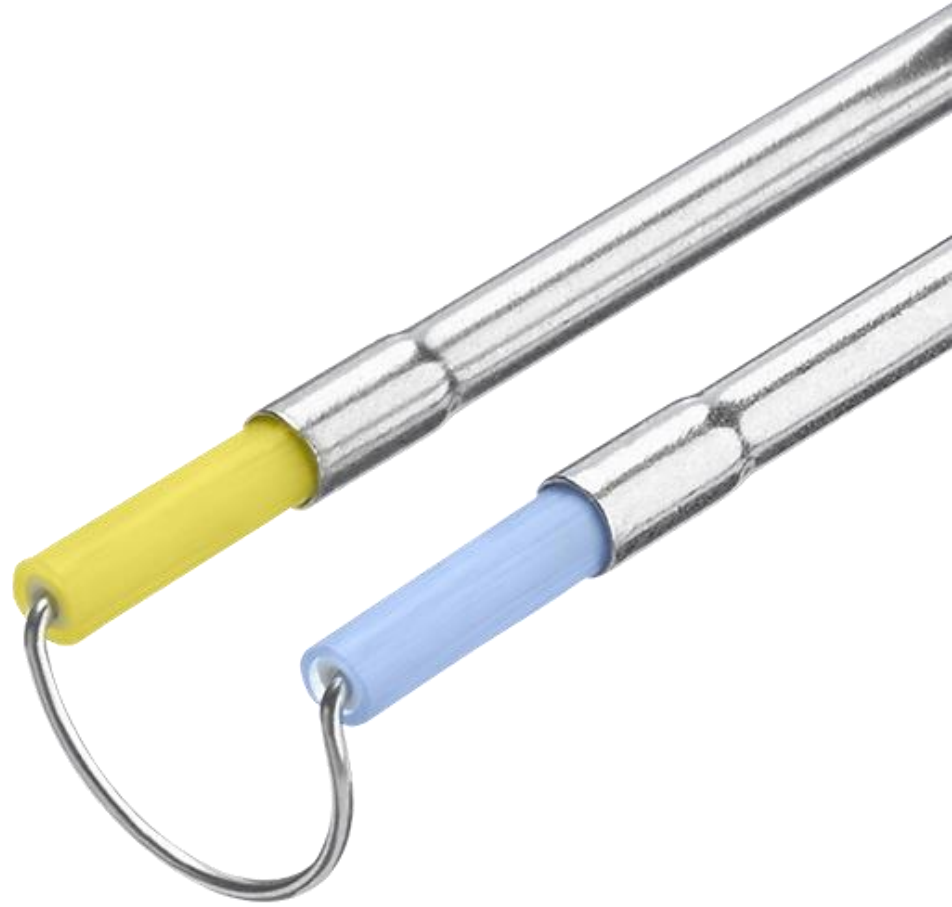


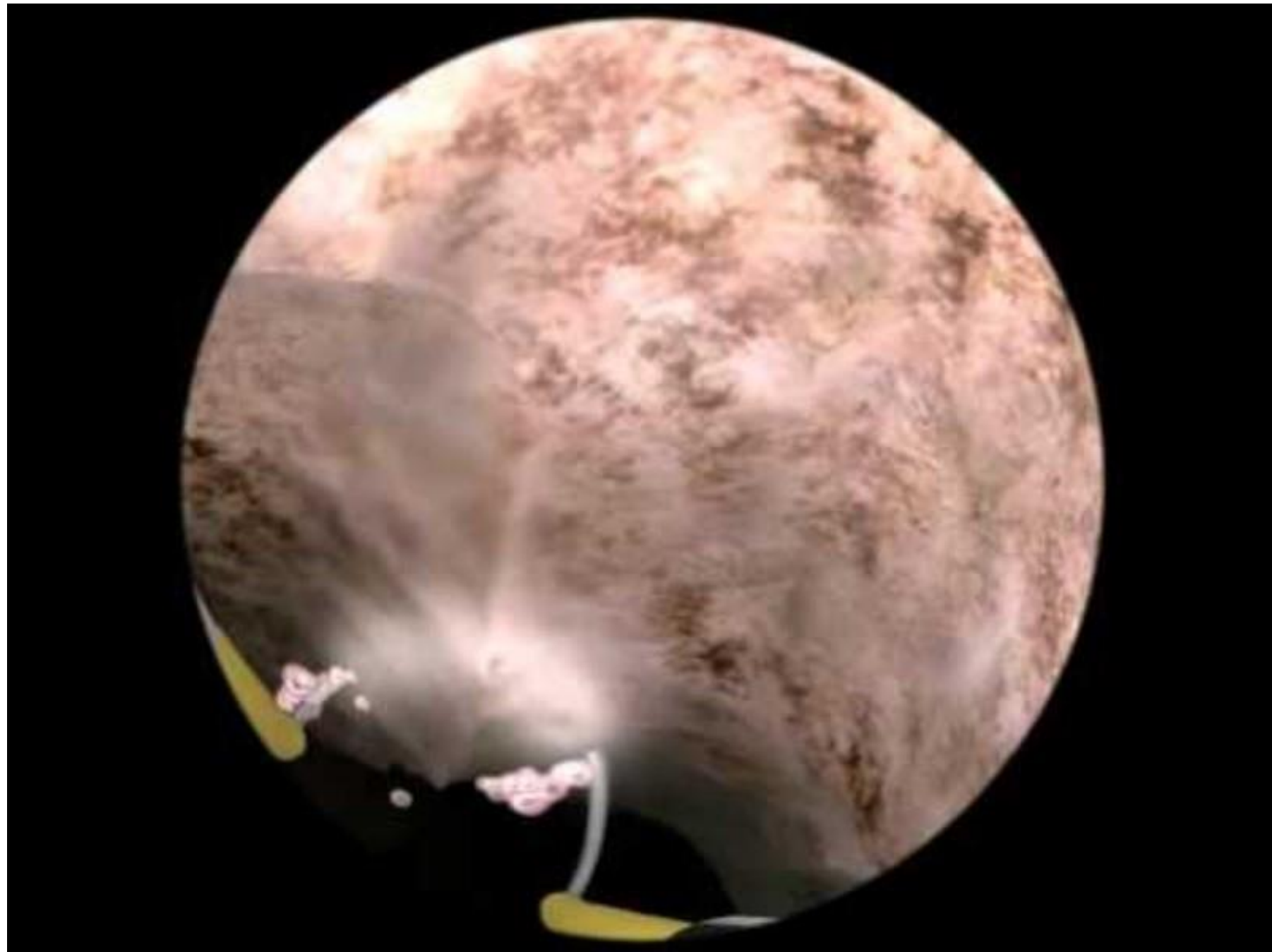
# TURP

## Trans Urethral Resection of the Prostate



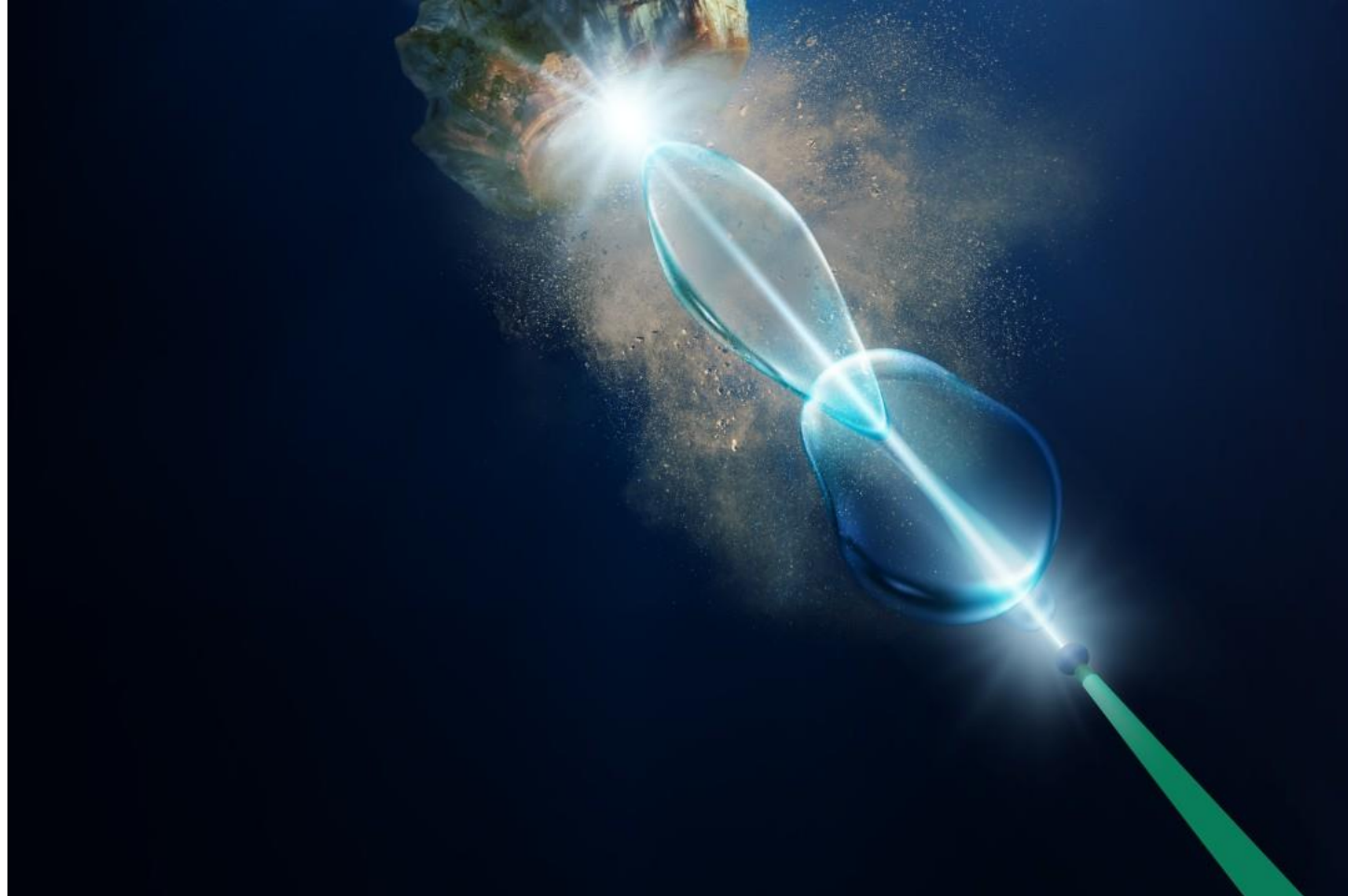
# TURP

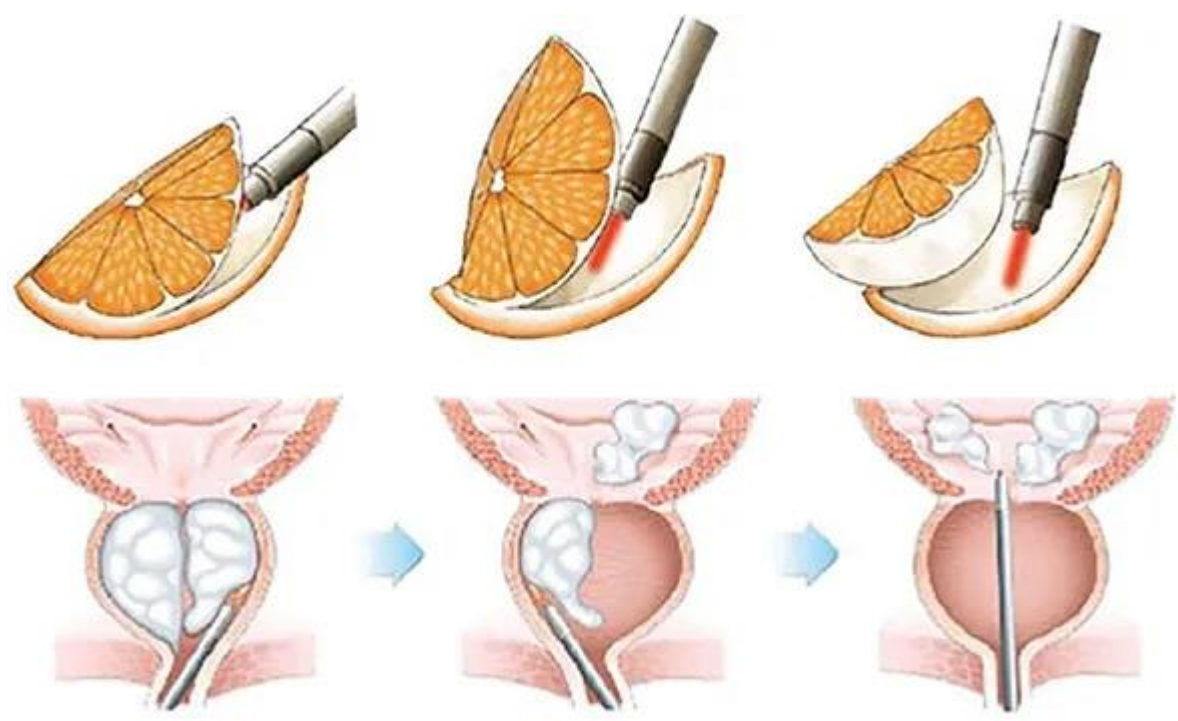




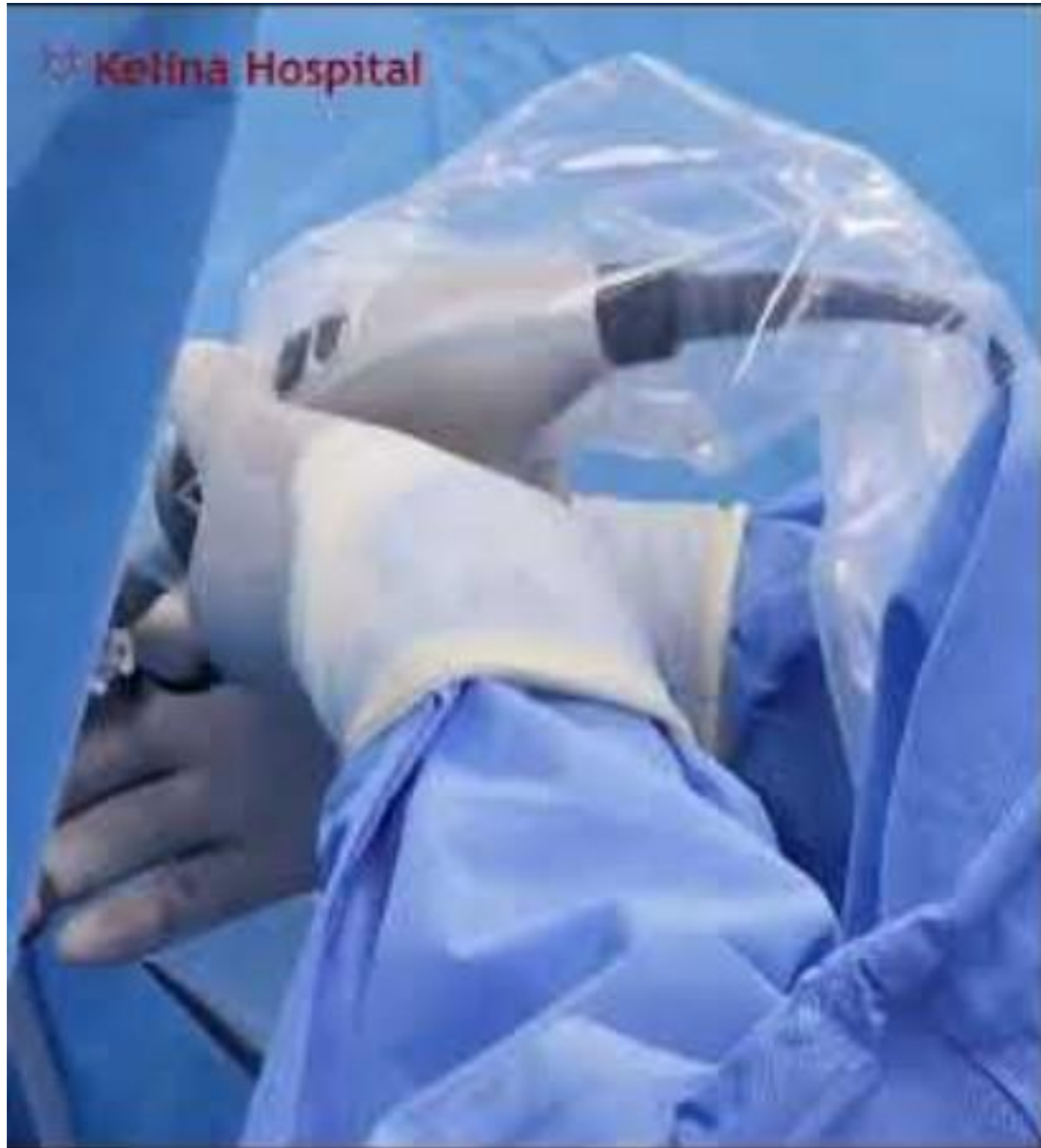


# HOLEP

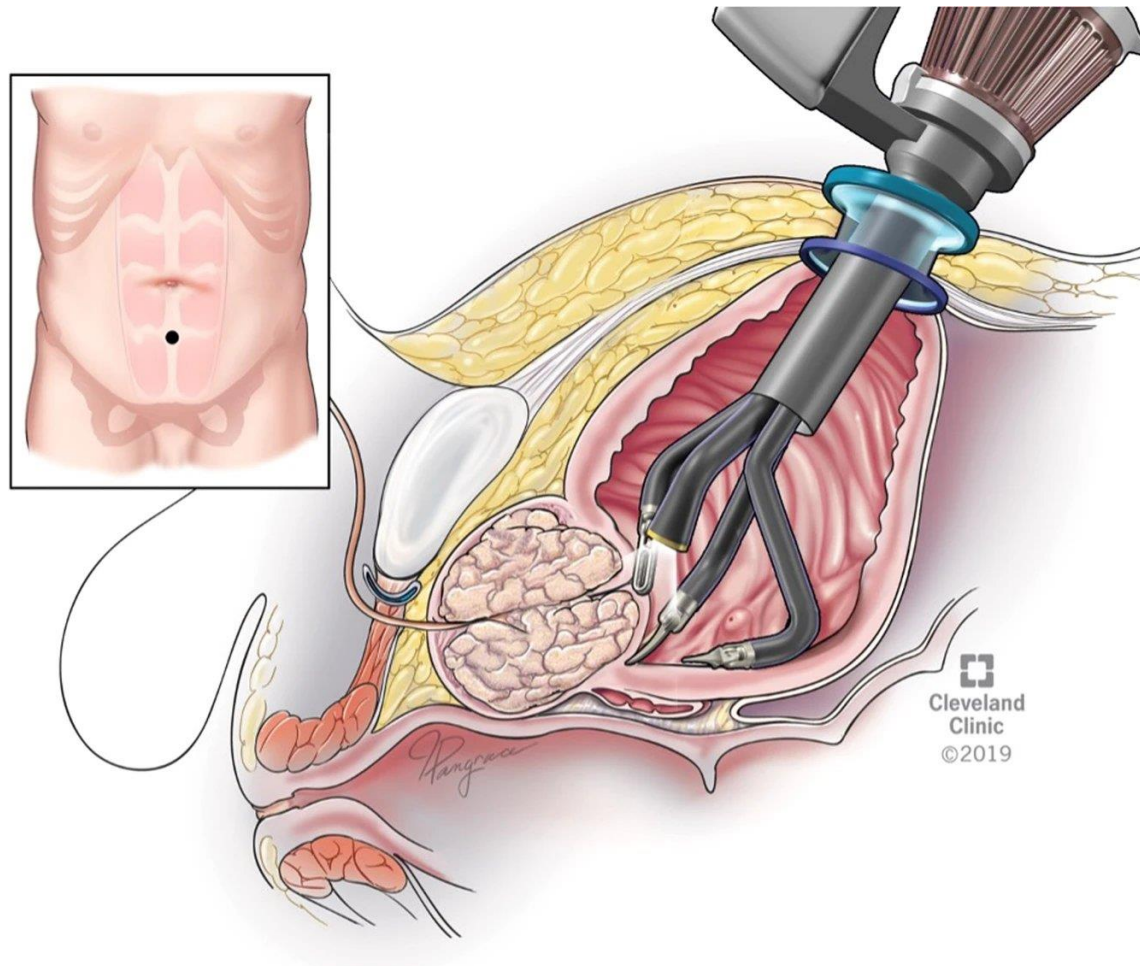




# holep



# Robot Assisted Prostate Adenomectomy RAPA



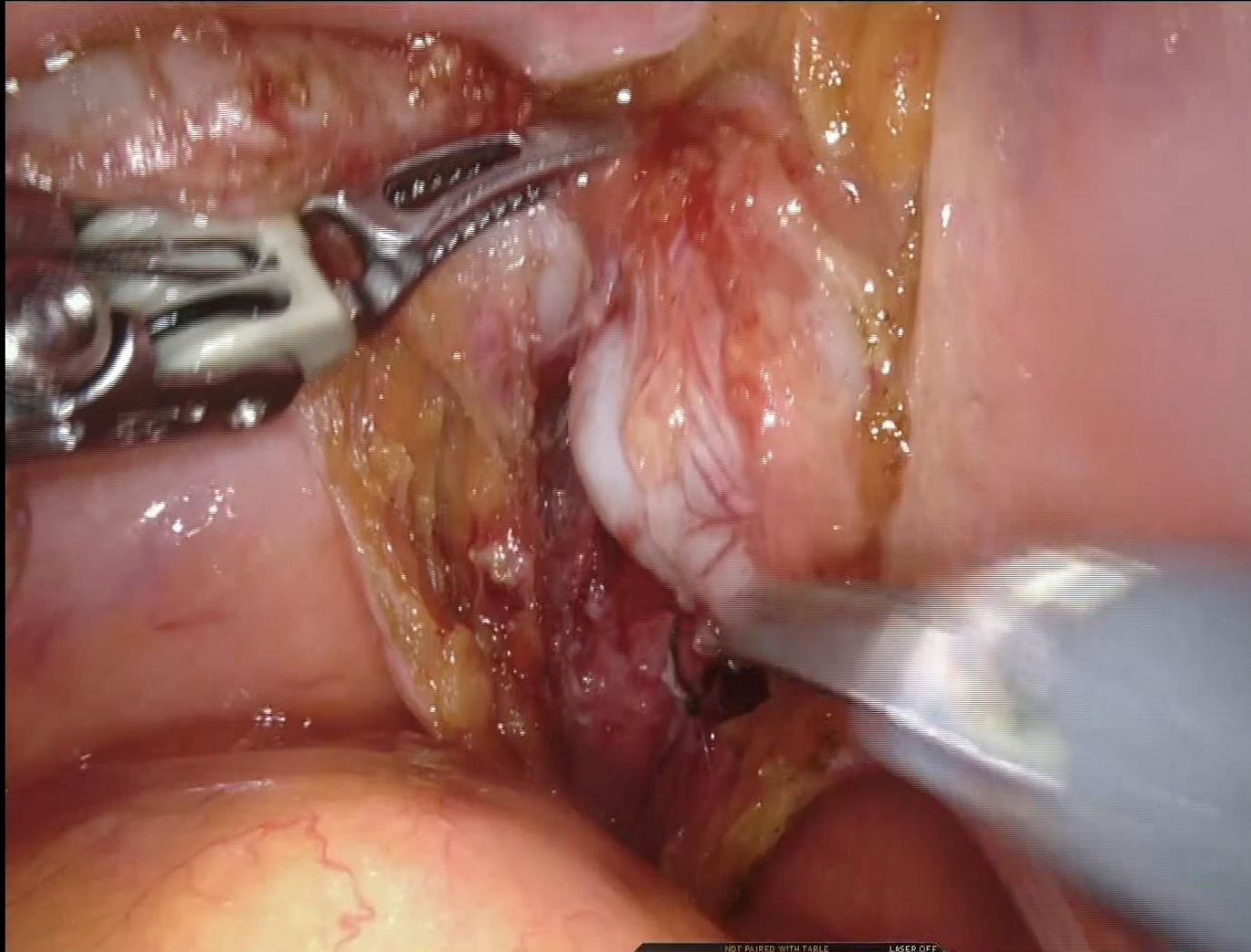


	rezum	turp	holep	rapa
One day clinic	+	-	-	-
Sexual function	+	-	-	-
IPSS	+/-	+	++	++
endoscopic	+	+	+	-
Long term	-	+	++	++



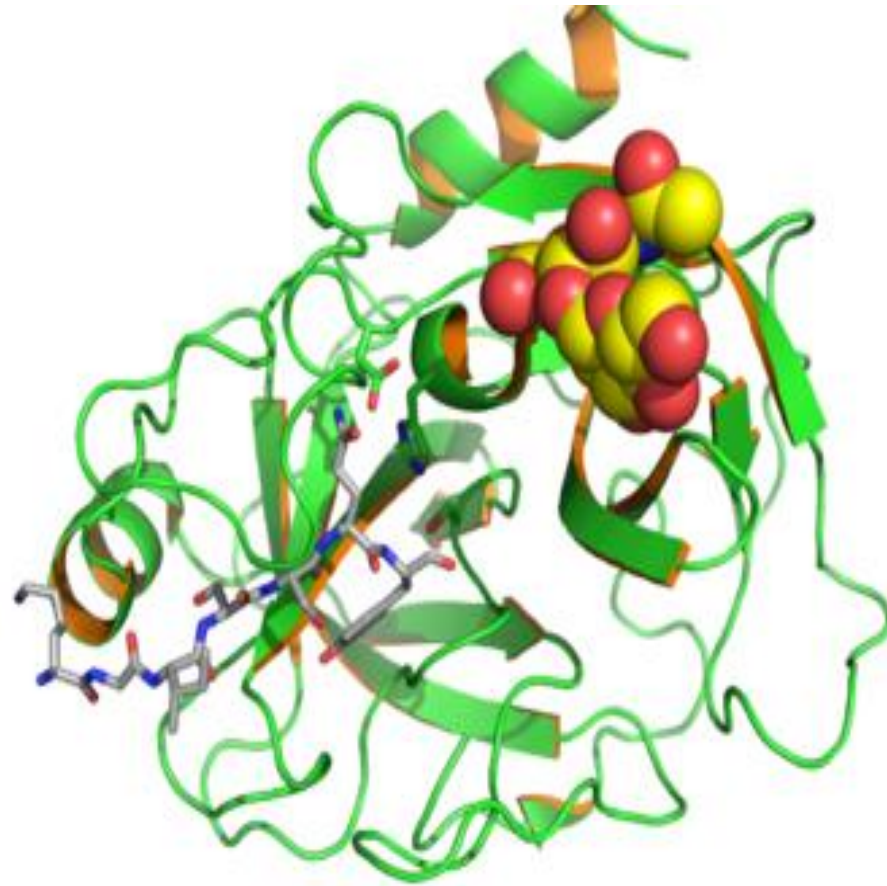
# Prostate cancer

- Mortality Europe : 2010 = 92,000 / year
- 2018 = 107,000 / year



1	PROGRASP FORCEPS	2	MARYLAND BIPOLAR FORCEPS	L COAG	3	NOT PAIRED WITH TABLE LASER OFF 1x 30°	4	MONOPOLAR CURVED SCISSORS	R CUT R COAG
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# **P S A : prostate specific antigen**



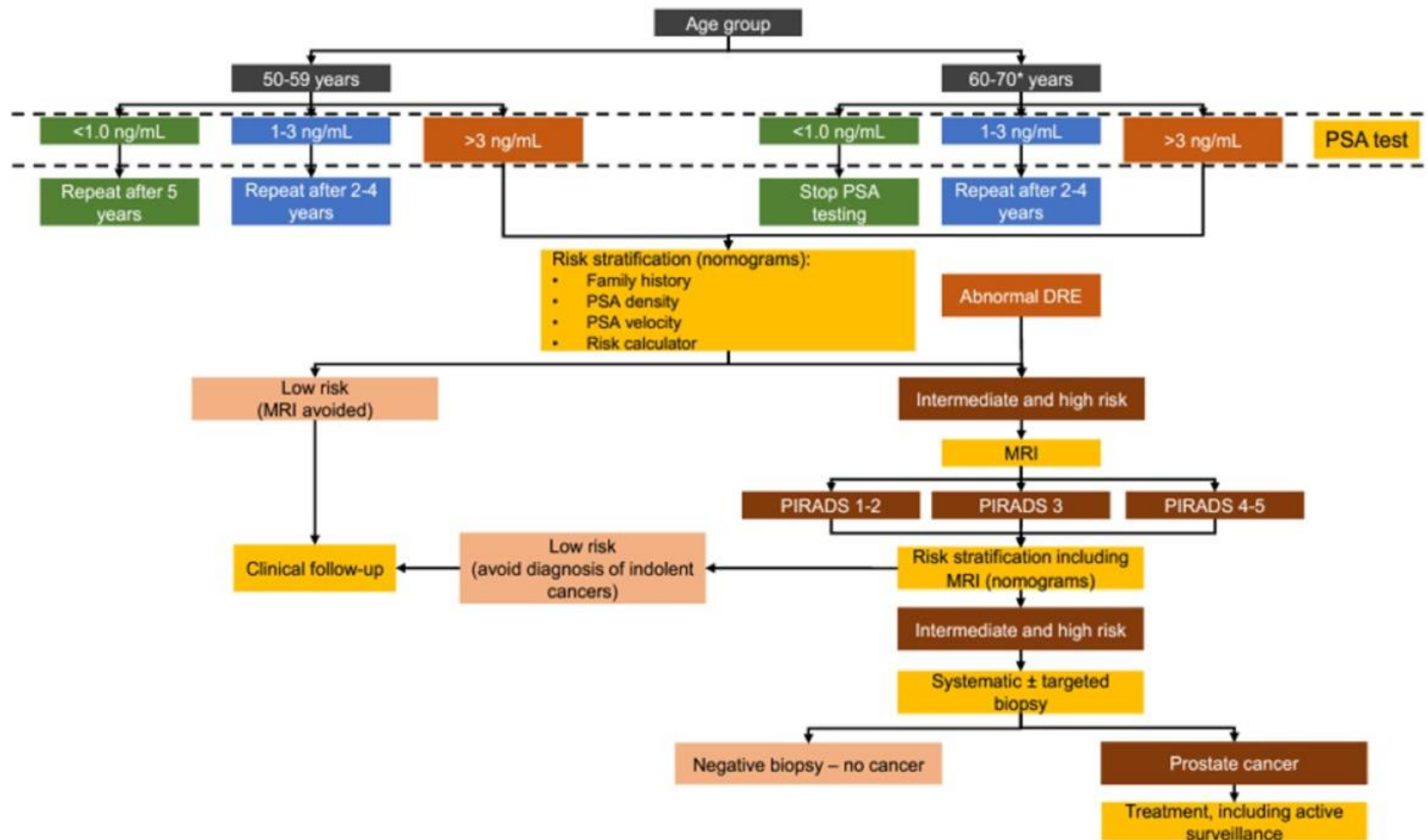


Fig. 4 – Risk-adapted algorithm for the early detection of prostate cancer, adapted based on prostate cancer guidelines published by the EAU [21]. The patient's values and preferences should always be taken into account as part of a shared decision-making process [21].

DRE = digital rectal examination; EAU = European Association of Urology; MRI = magnetic resonance imaging; PIRADS = Prostate Imaging Reporting and Data System; PSA = prostate-specific antigen.

\*Healthy men >70 yr without important comorbidities and a life expectancy of >10-15 yr may continue PSA testing.

**Table 6.6.1: EAU risk groups for biochemical recurrence of localised and locally-advanced prostate Cancer**

Definition			
Low-risk	Intermediate-risk	High-risk	
PSA < 10 ng/mL and GS < 7 (ISUP grade 1) and cT1-2a*	PSA 10–20 ng/mL or GS 7 (ISUP grade 2/3) or cT2b*	PSA > 20 ng/mL Or GS > 7 (ISUP grade 4/5) or cT2c*	any PSA any GS (any ISUP grade)* cT3-4* or cN+**
Localised			Locally advanced

*GS = Gleason score; ISUP = International Society for Urological Pathology; PSA = prostate-specific antigen.*

*\* Based on digital rectal examination.*



# Prostate Cancer : treatment

- Surgical treatment

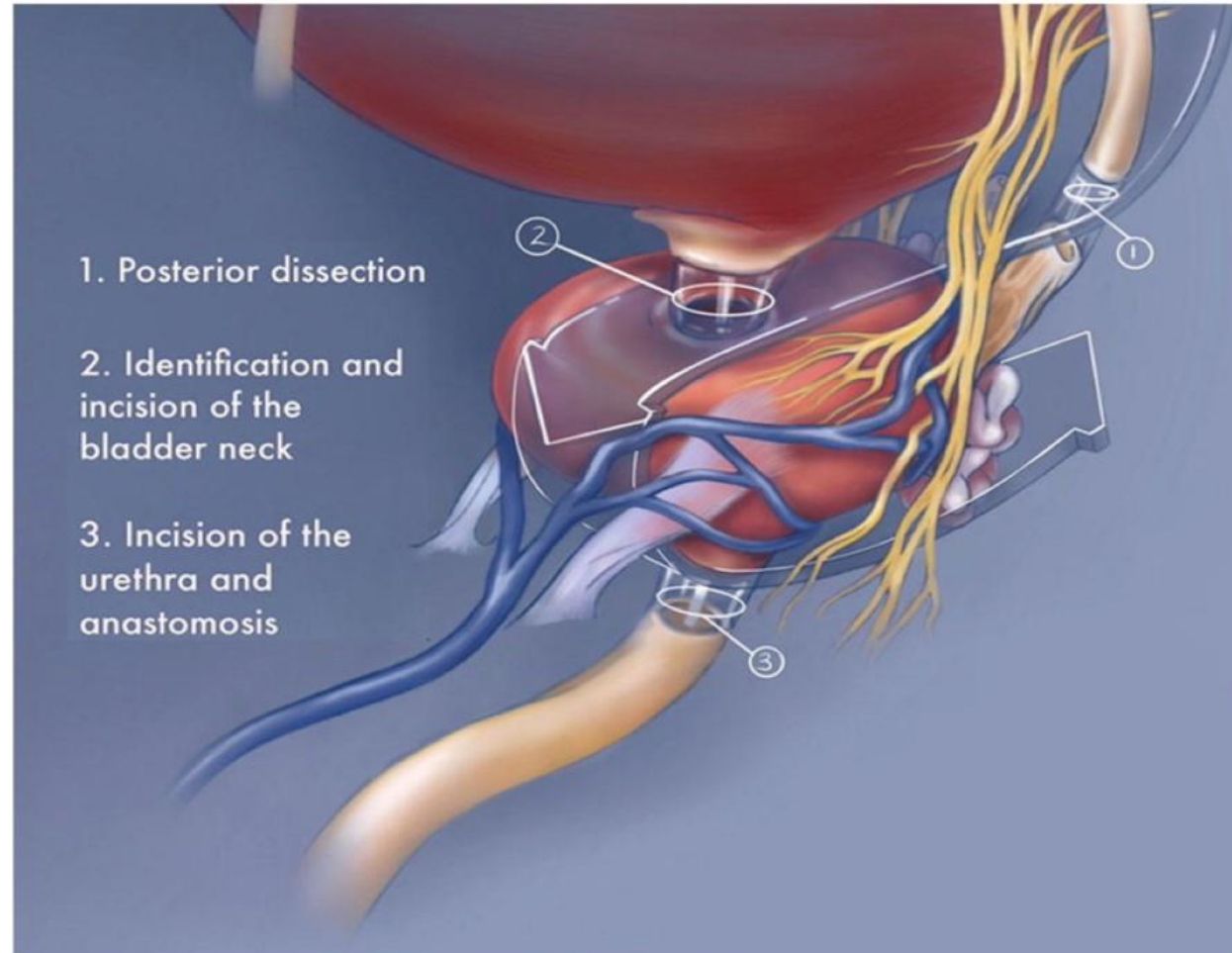


- . External Beam Radiotherapy





# Radical Prostatectomy RARP



# ROBOTICS in UROLOGY



# ROBOTICS EVOLUTION

See how Intuitive systems, learning, and services have supported surgeons for more than 28 years



Working together closely with surgeons **like you** has helped inspire our continuous drive to innovate and design four generations (and counting) of da Vinci surgical systems.



Over the years we learned **surgeons wanted more than** a robotic surgical system.

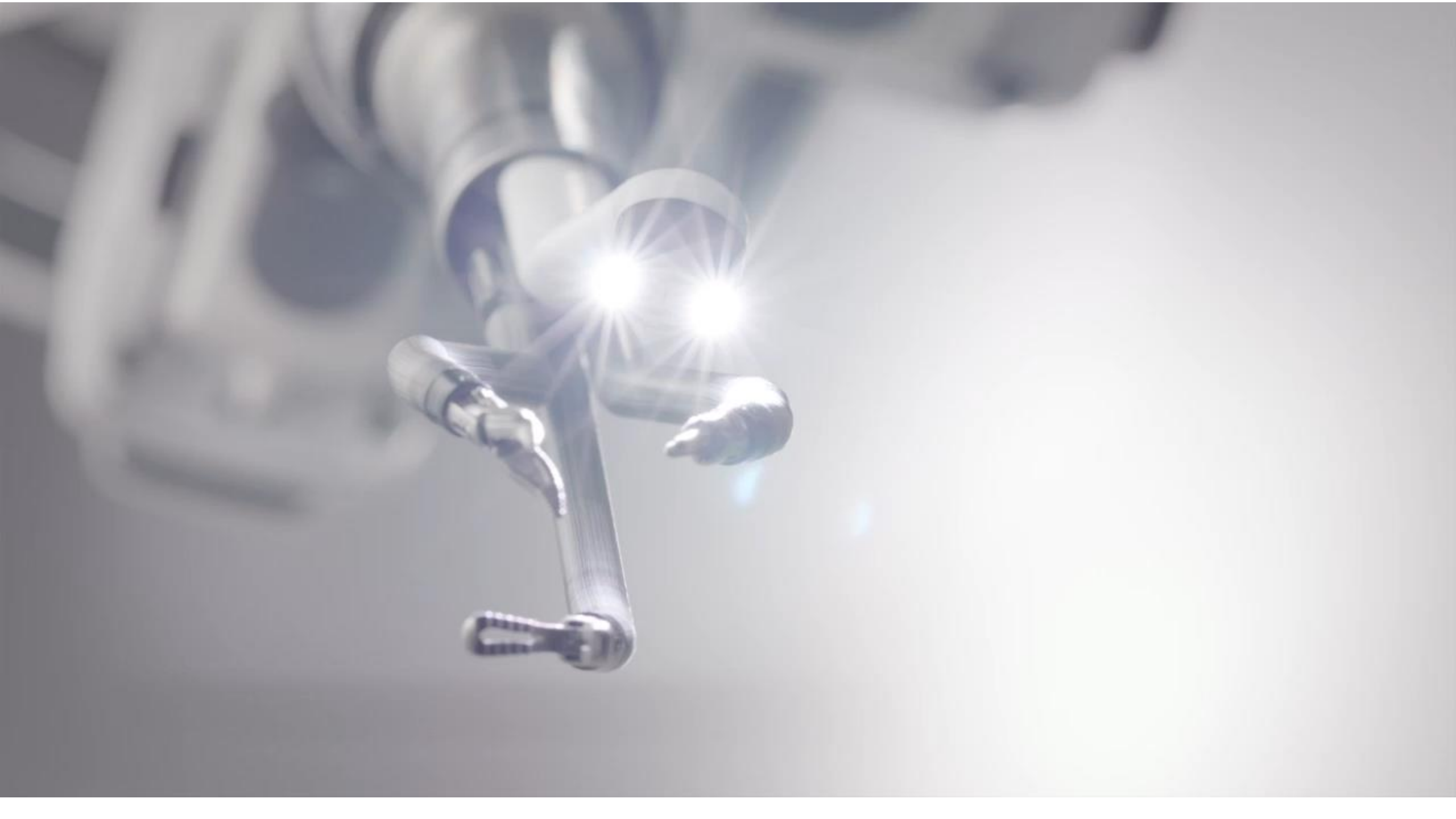


To advance what's possible in minimally invasive care, **they asked for—and got—our support to** address other challenges with robotics.

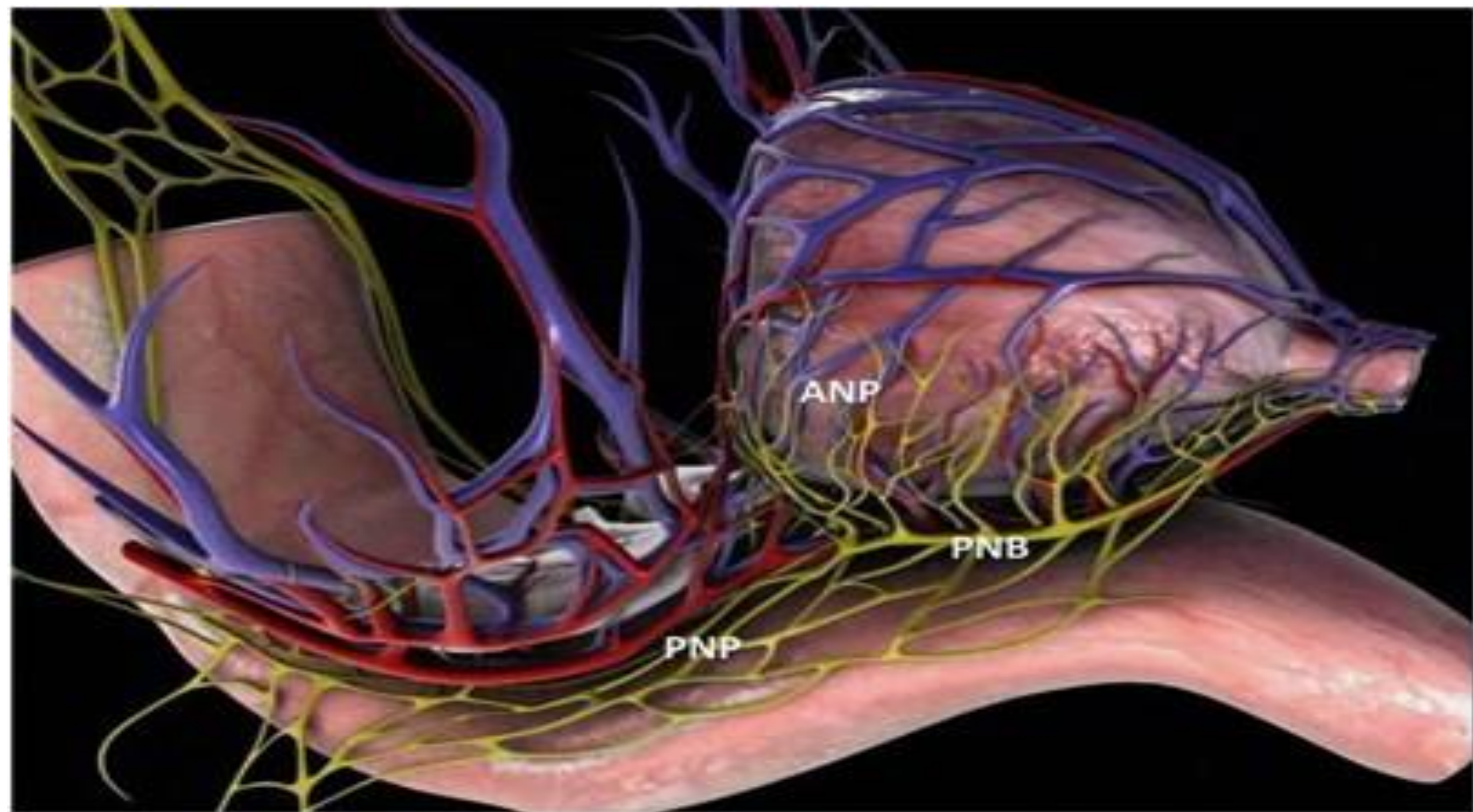




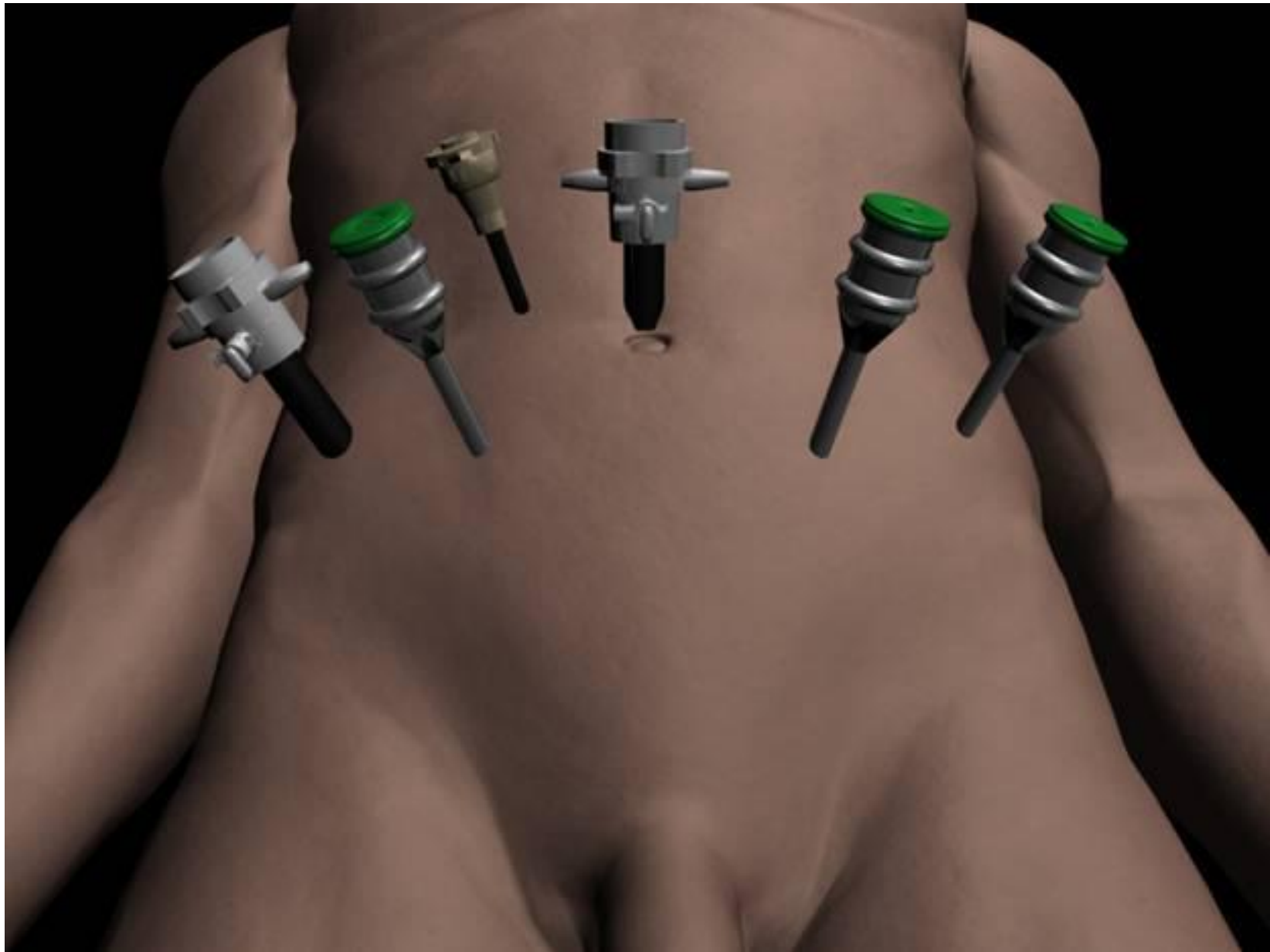


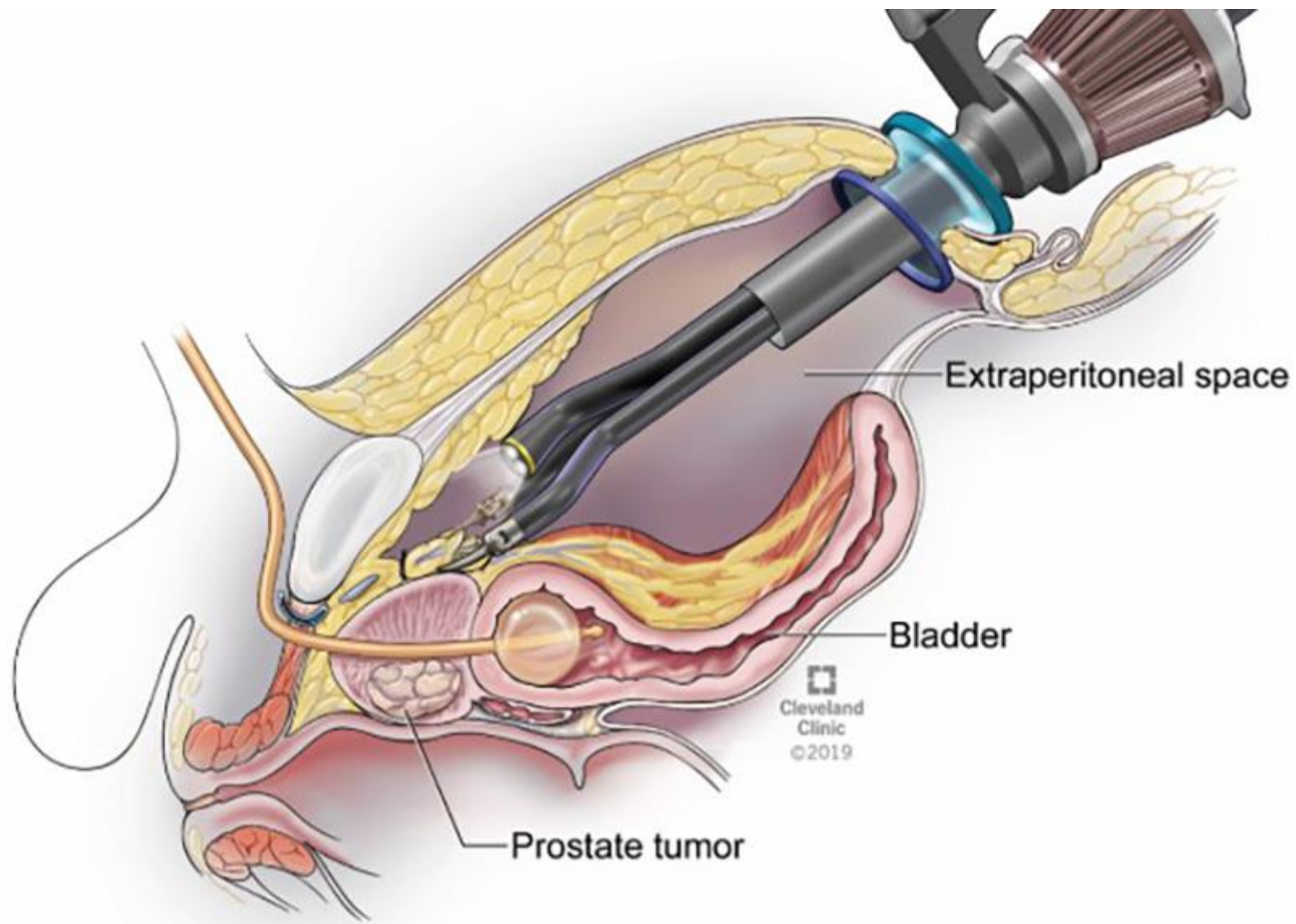






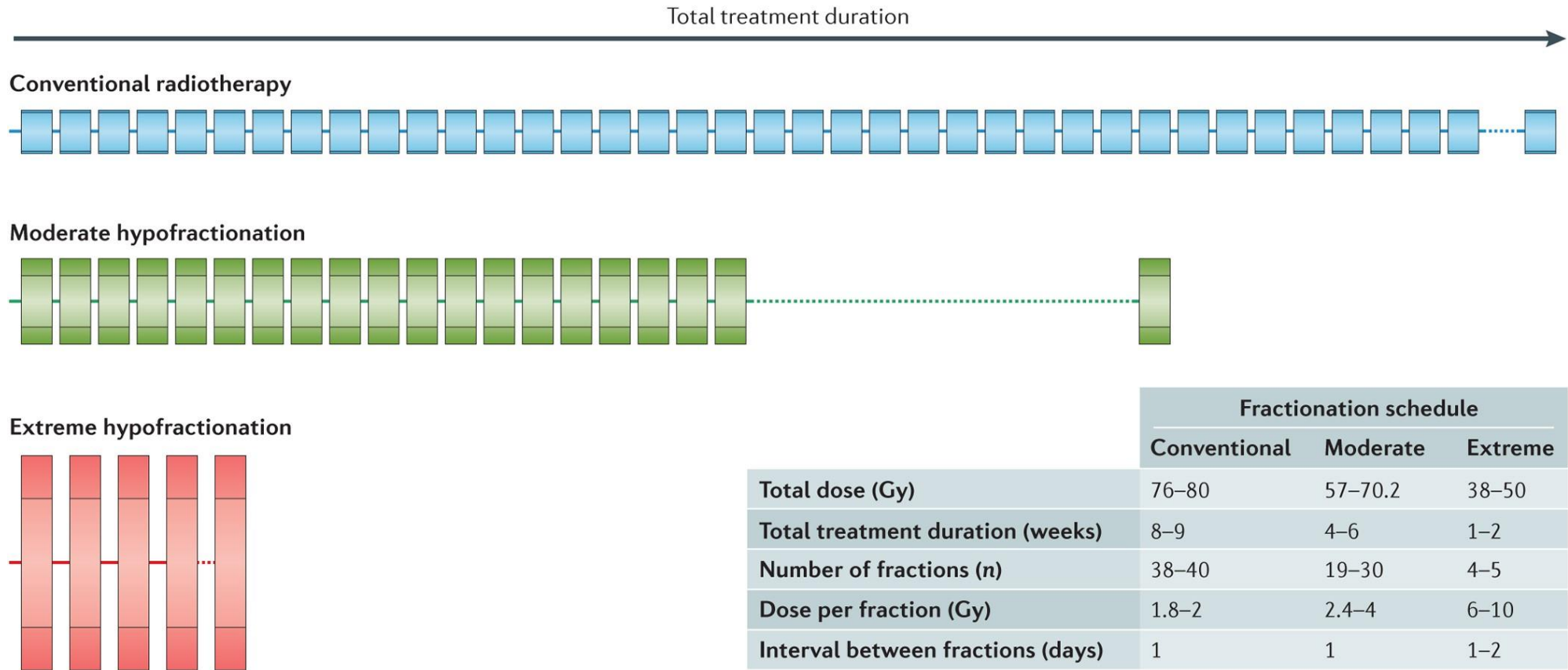






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# Radiotherapy prostate cancer



# Systemic treatments prostate cancer

