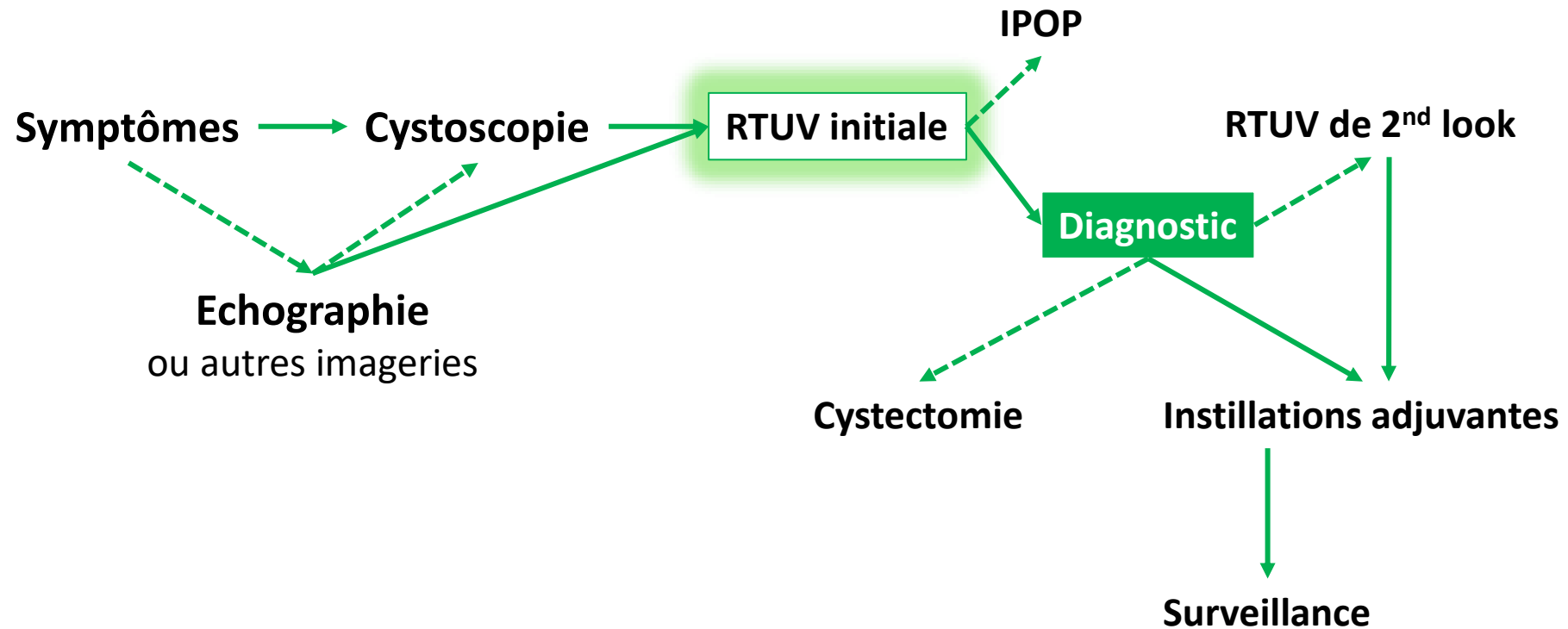


Cancer de la Vessie : TVNIM : comment optimiser son traitement chirurgical ?

Alger, Algérie – Vendredi 17 janvier 2025 | Pr. Yann NEUZILLET, Urologue

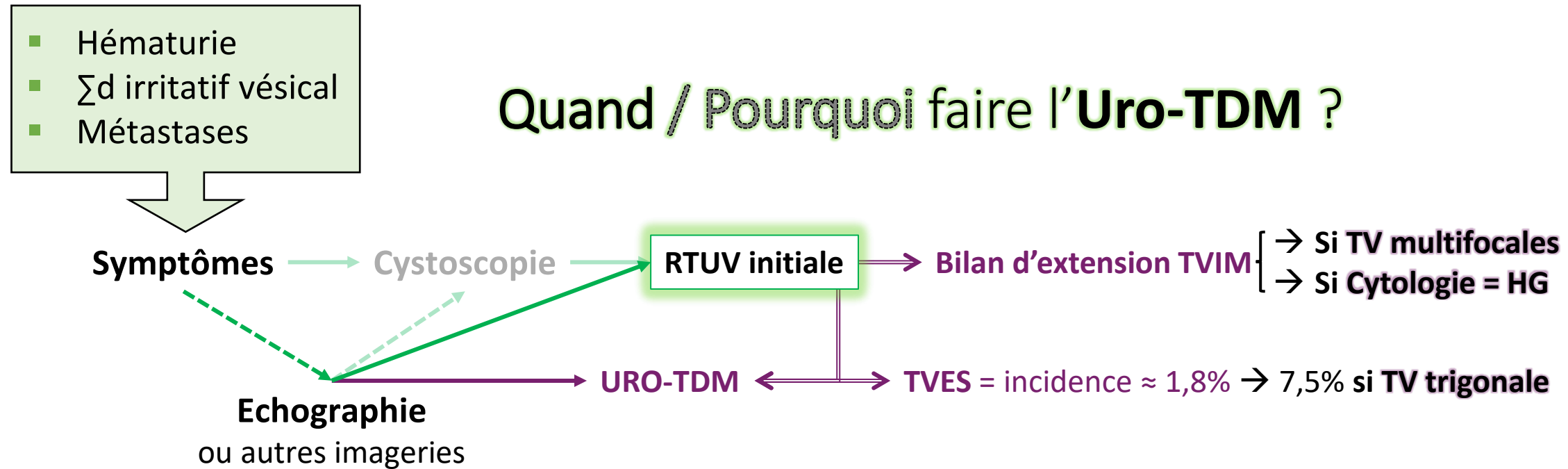
TVNIM : comment optimiser son traitement chirurgical ?

Parcours de soins / Prise en charge des TVNIM



TVNIM : comment optimiser son traitement chirurgical ?

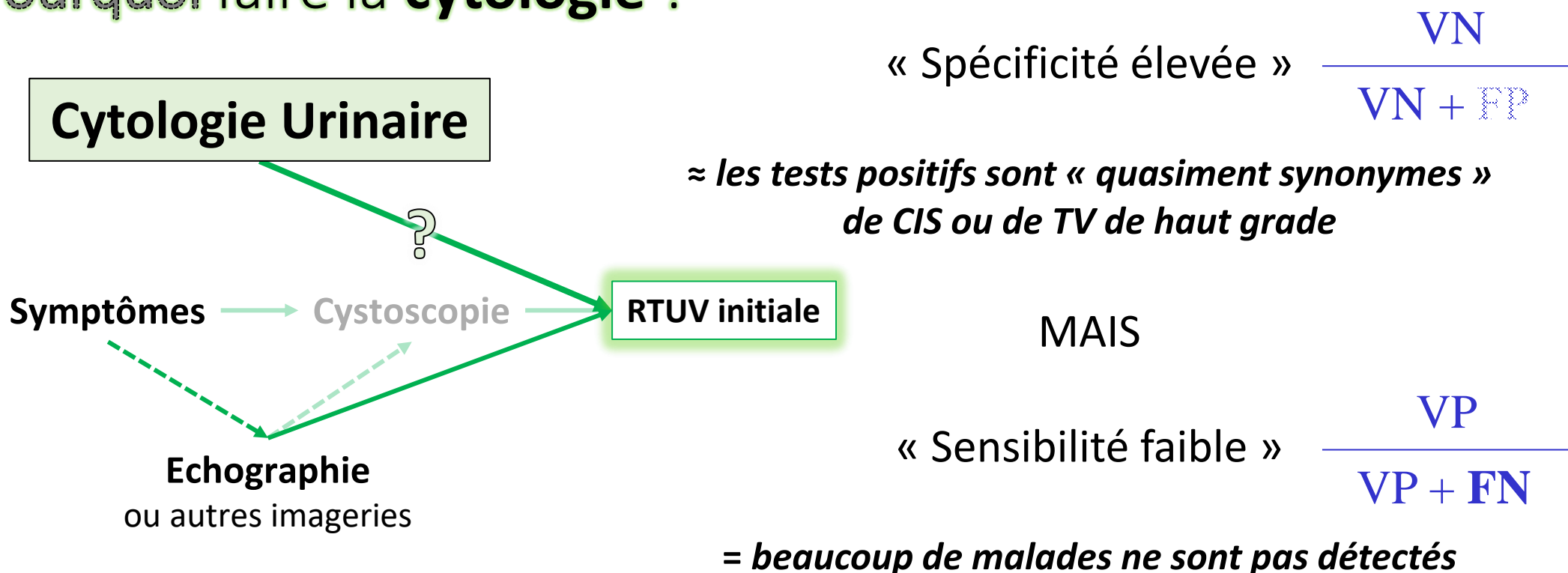
Prise en charge **diagnostique** des TV



TVNIM : comment optimiser son traitement chirurgical ?

Prise en charge **diagnostique** des TV

Quand / Pourquoi faire la **cytologie** ?



→ Si cytologie urinaire ≠ « **Tumeur urothéliale de haut grade** » → **IPOP**

“Cahier des charges” de la RTUV initiale

- ✓ Complète de toutes les tumeurs
- ✓ Emportant des trousseaux musculaires du détrusor
- ✓ **Sans perforation vésicale**

Patient : âge, antécédents chirurgicaux, HBP, prolapsus...



=



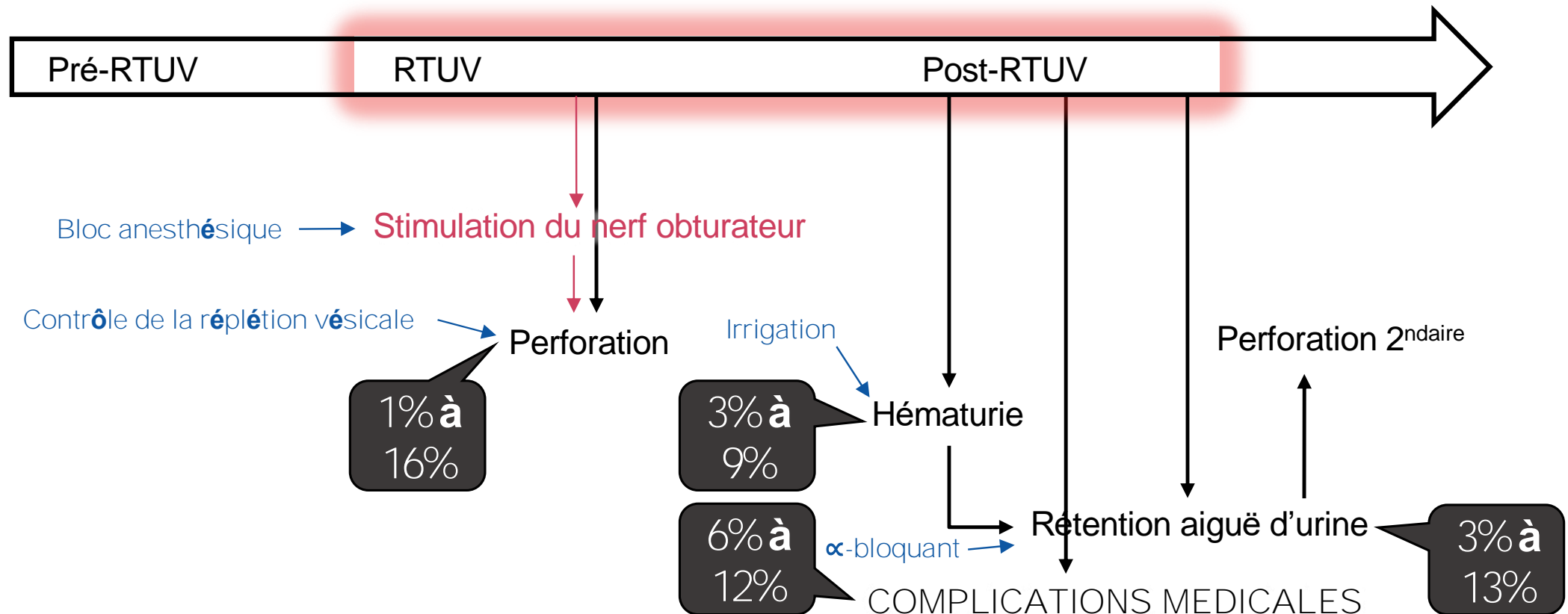
“Optimisation” de la RTUV initiale

→ **Diminuer la morbidité de la RTUV**

→ **Améliorer les résultats oncologiques de la RTUV**

“Optimisation” de la RTUV initiale

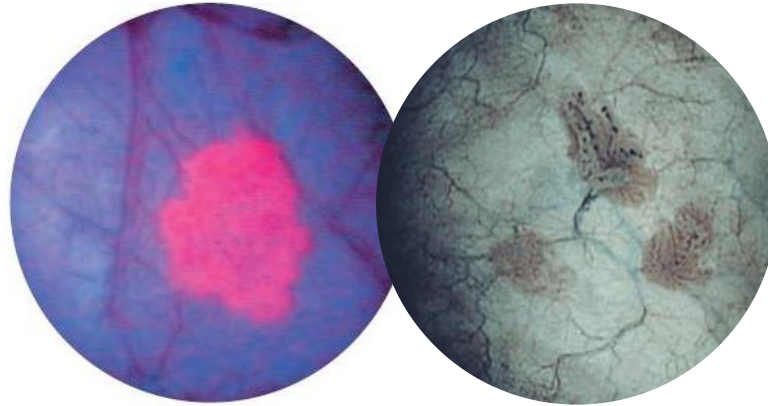
→ Diminuer la morbidité de la RTUV



“Optimisation” de la RTUV initiale

→ Améliorer les résultats oncologiques de la RTUV

→ Mieux VOIR

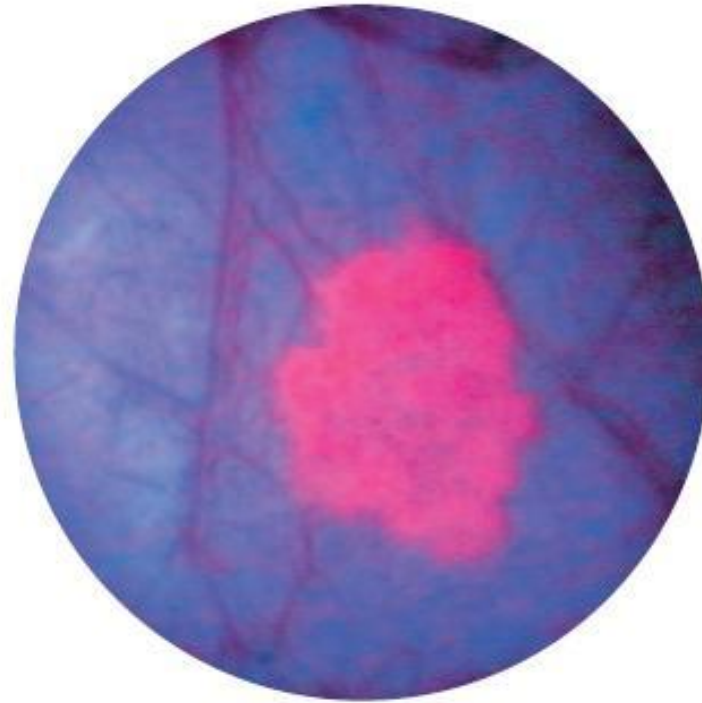


→ Mieux RESEQUER

Luminofluorescence



Standard white light cystoscopy



Hexvix cystoscopy

TVNIM : comment optimiser son traitement chirurgical ?

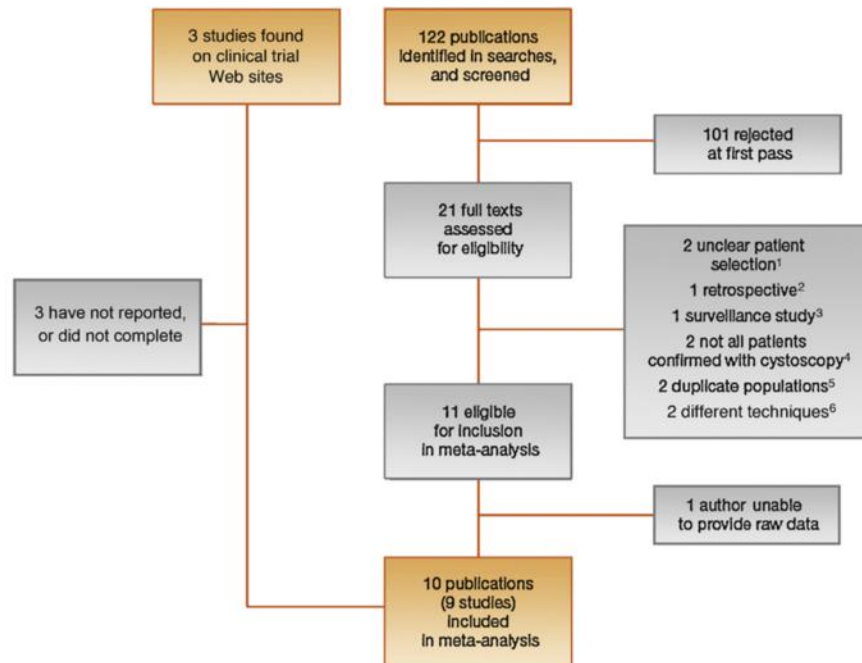
Luminofluorescence : 2(à 3) méta-analyses

Bladder Cancer

Photodynamic Diagnosis of Non-muscle-invasive Bladder Cancer with Hexaminolevulinate Cystoscopy: A Meta-analysis of Detection and Recurrence Based on Raw Data

Maximilian Burger^{a,*}, H. Barton Grossman^b, Michael Droller^c, Joerg Schmidbauer^d, Gregers Hermann^e, Octavian Drăgoescu^f, Eleanor Ray^g, Yves Fradet^h, Alexander Karlⁱ, Juan Pablo Burgués^j, J. Alfred Witjes^k, Arnulf Stenzl^l, Patrice Jichlinski^m, Dieter Jochamⁿ

^aDepartment of Urology and Paediatric Urology, Julius-Maximilians University Medical Centre, Würzburg, Germany; ^bDepartment of Urology, MD Anderson Cancer Centre, Houston, TX, USA; ^cMount Sinai Medical Centre, New York, NY, USA; ^dDepartment of Urology, Medical University of Vienna, Vienna, Austria; ^eDepartment of Urology, Frederiksberg Hospital, Copenhagen, Denmark; ^fDepartment of Urology, Emergency County Hospital of Craiova, Craiova, Romania; ^gUrology Centre, Guys Hospital, London, UK; ^hDepartment of Urology, CHUQ Hôpital-Dieu de Quebec, Quebec, Canada; ⁱDepartment of Urology, Klinikum Grosshadern, Munich, Germany; ^jDepartment of Urology, Hospital Universitario Son Espases, Palma de Mallorca, Spain; ^kDepartment of Urology, Radboud University, Nijmegen Medical Centre, Nijmegen, The Netherlands; ^lDepartment of Urology, University of Tübingen, Tübingen, Germany; ^mDepartment of Urology, University Hospital, Lausanne, Switzerland; ⁿDepartment of Urology, University of Lübeck, Lübeck, Germany



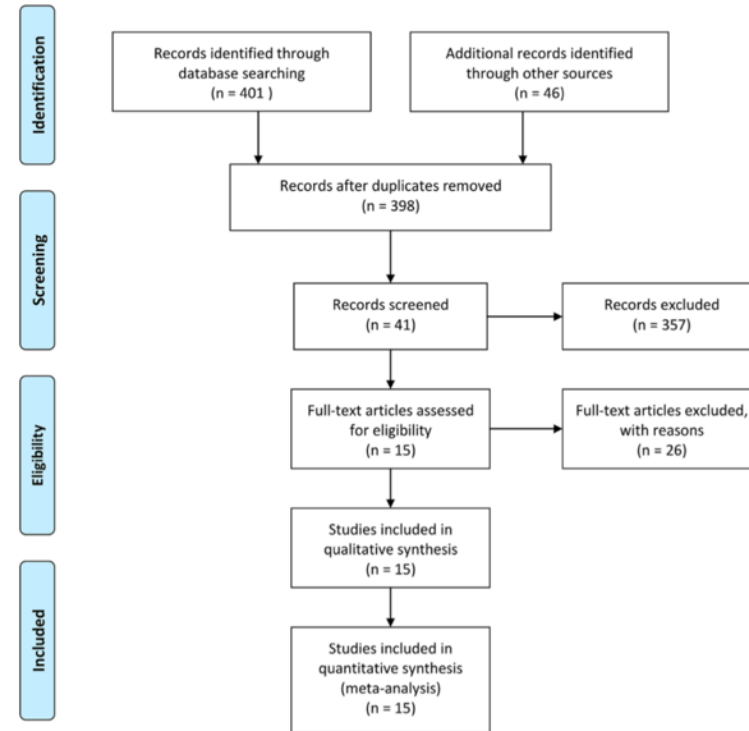
RESEARCH ARTICLE

Open Access



A network meta-analysis of therapeutic outcomes after new image technology-assisted transurethral resection for non-muscle invasive bladder cancer: 5-aminolaevulinic acid fluorescence vs hexylaminolevulinate fluorescence vs narrow band imaging

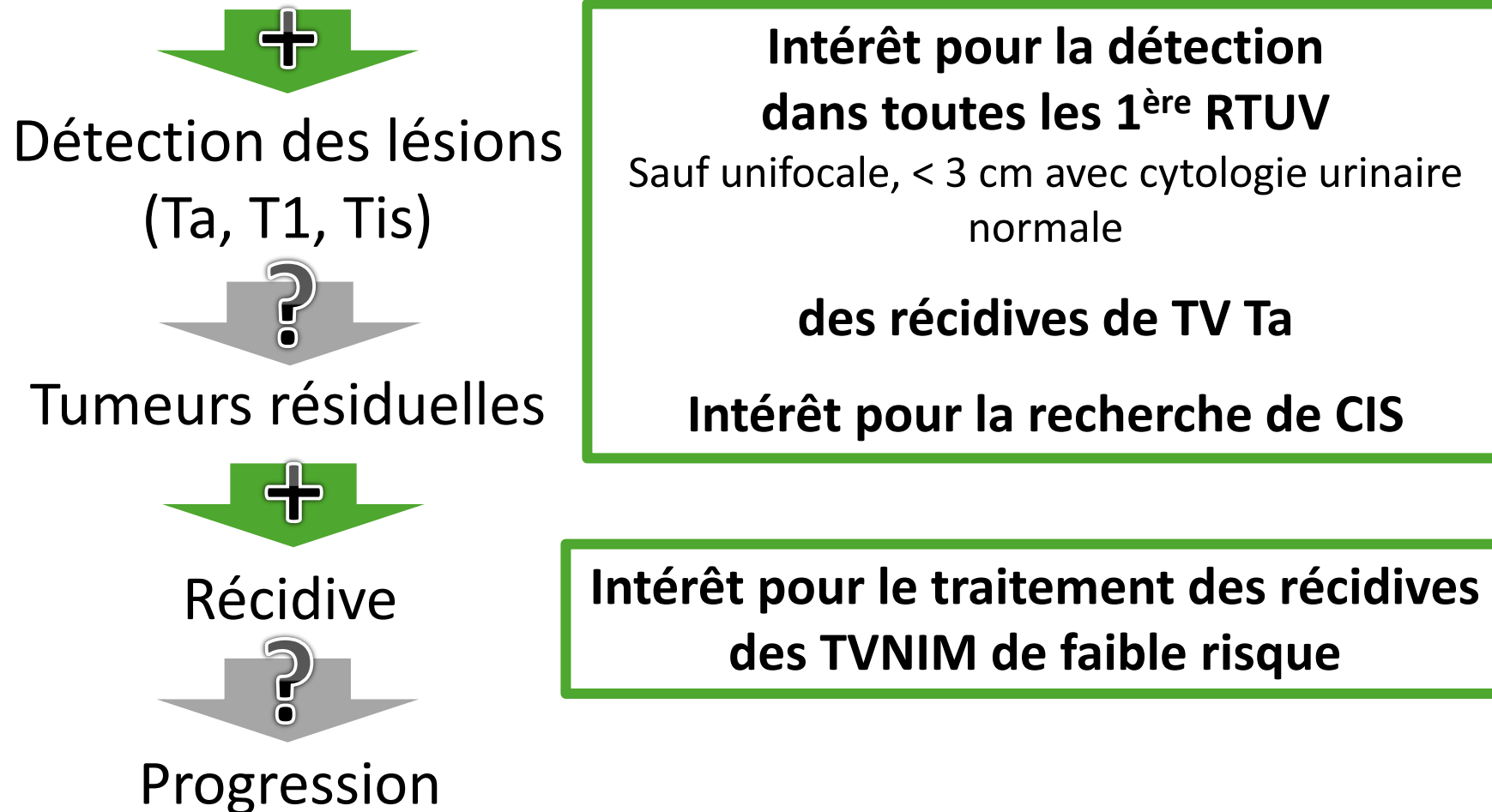
Joo Yong Lee¹, Kang Su Cho², Dong Hyuk Kang³, Hae Do Jung¹, Jong Kyu Kwon⁴, Cheol Kyu Oh⁴, Won Sik Ham¹ and Young Deuk Choi^{1,5*}



TVNIM : comment optimiser son traitement chirurgical ?

Luminofluorescence : 2(à 3) méta-analyses

Luminofluorescence / HAL



TVNIM : comment optimiser son traitement chirurgical ?

Luminofluorescence : 2(à 3) méta-analyses

Luminofluorescence / HAL



Détection des lésions
(Ta, T1, Tis)



Tumeurs résiduelles



Récidive



Progression

Bladder Cancer 2 (2016) 293–300
DOI 10.3233/BLC-160060
IOS Press

293

Research Report

Systematic Review and Meta-Analysis on the Impact of Hexaminolevulinate- Versus White-Light Guided Transurethral Bladder Tumor Resection on Progression in Non-Muscle Invasive Bladder Cancer

Georgios Gakis^{a,*} and Omar Fahmy^b

^aDepartment of Urology, University Hospital Tübingen, Tübingen, Germany

^bDepartment of Urology, University Putra Malaysia (UPM), Selangor, Malaysia

Intérêt possible

TVNIM : comment optimiser son traitement chirurgical ?

Luminofluorescence : Etude de phase III « PHOTO »

Luminofluorescence / HAL



Détection des lésions
(Ta, T1, Tis)



Tumeurs résiduelles



Récidive



Progression

 NEJM
Evidence

Published September 2, 2022

[DOI: 10.1056/EVIDoa2200092](https://doi.org/10.1056/EVIDoa2200092)

ORIGINAL ARTICLE

A Randomized Trial of PHOTodynamic Surgery in Non-Muscle-Invasive Bladder Cancer

Rakesh Heer, F.R.C.S.(Urol),¹ Rebecca Lewis, B.Sc.,² Thenmalar Vadiveloo, Ph.D.,³ Ge Yu, Ph.D.,¹ Paramanathan Mariappan, F.R.C.S.(Urol),⁴ Joanne Cresswell, F.R.C.S.(Urol),⁵ John McGrath, F.R.C.S.(Urol),⁶ Ghulam Nabi, F.R.C.S.(Urol),⁷ Hugh Mostafid, F.R.C.S.(Urol),⁸ Henry Lazarowicz, F.R.C.S.(Urol),⁹ John Kelly, F.R.C.S.(Urol),¹⁰ Anne Duncan, B.Sc.,³ Steven Penegar, B.Sc.,² Matt Breckons, Ph.D.,¹ Laura Wilson, B.Sc.,¹ Emma Clark, Ph.D.,¹ Andy Feber, Ph.D.,¹⁰ Giovany Orozco-Leal, M.Sc.,¹ Zafer Tandogdu, Ph.D.,¹⁰ Ernest Taylor,¹¹ James N'Dow, F.R.C.S.(Urol),¹² John Norrie, M.Sc.,¹³ Craig Ramsay, Ph.D.,¹⁴ Stephen Rice, Ph.D.,¹ Luke Vale, Ph.D.,¹ Graeme MacLennan, M.Sc.,³ and Emma Hall, Ph.D.²

 Intérêt possible

TVNIM : comment optimiser son traitement chirurgical ?

Luminofluorescence : Etude de phase III « PHOTO »

Luminofluorescence / HAL



Détection des lésions
(Ta, T1, Tis)



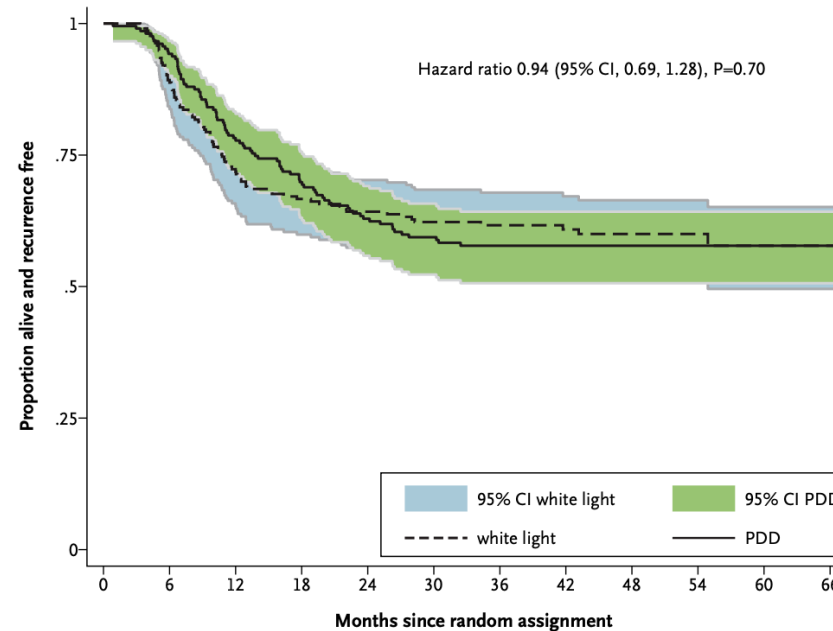
Tumeurs résiduelles



Récidive



Progression



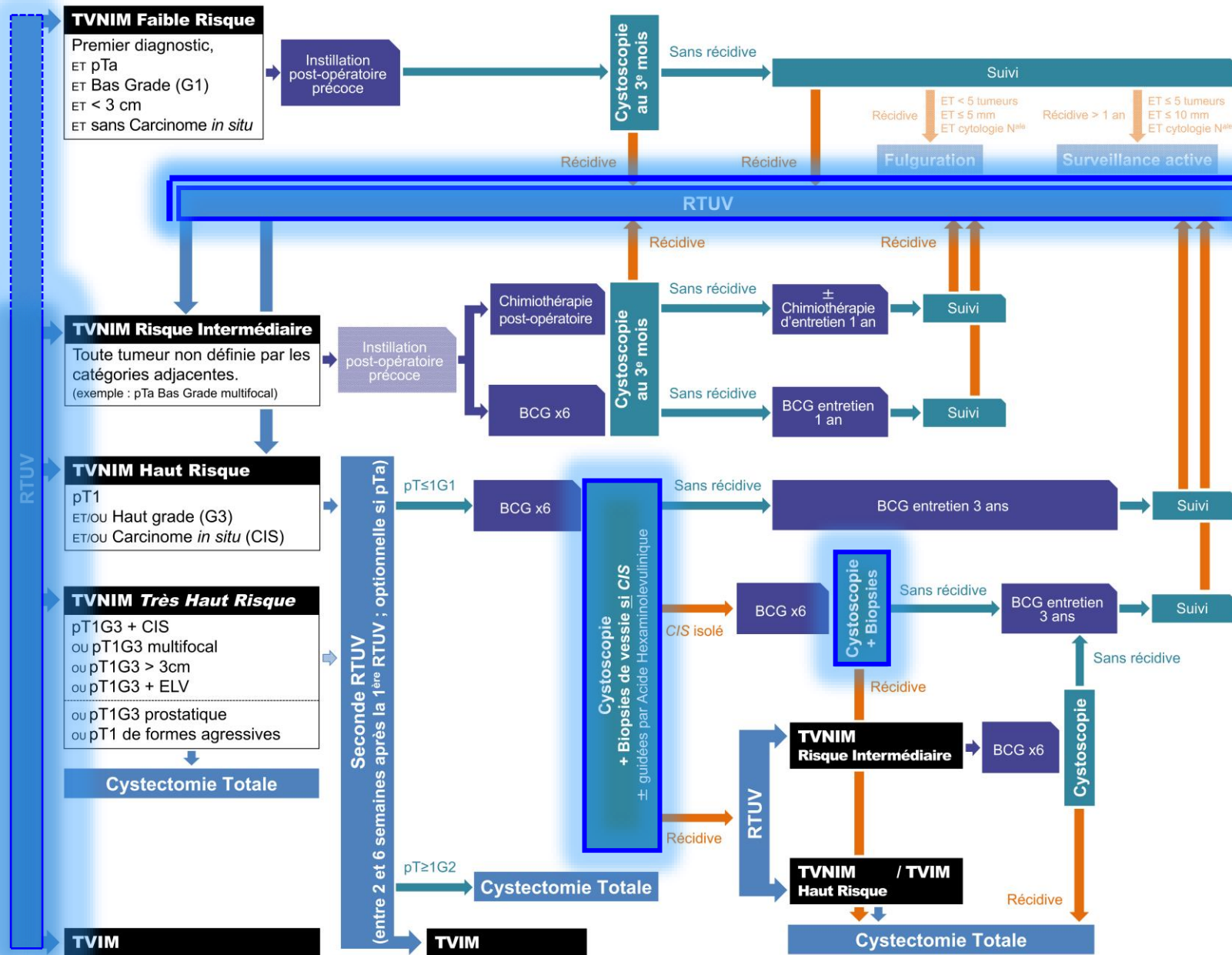
No. at risk

	0	6	12	18	24	30	36	42	48	54	60	66											
White light	217	(23)	190	(36)	153	(12)	140	(5)	132	(4)	119	(1)	96	(1)	75	(1)	53	(0)	28	(1)	12	(0)	1
PDD	209	(12)	196	(33)	160	(17)	140	(14)	126	(7)	114	(3)	94	(0)	66	(0)	47	(0)	24	(0)	12	(0)	1

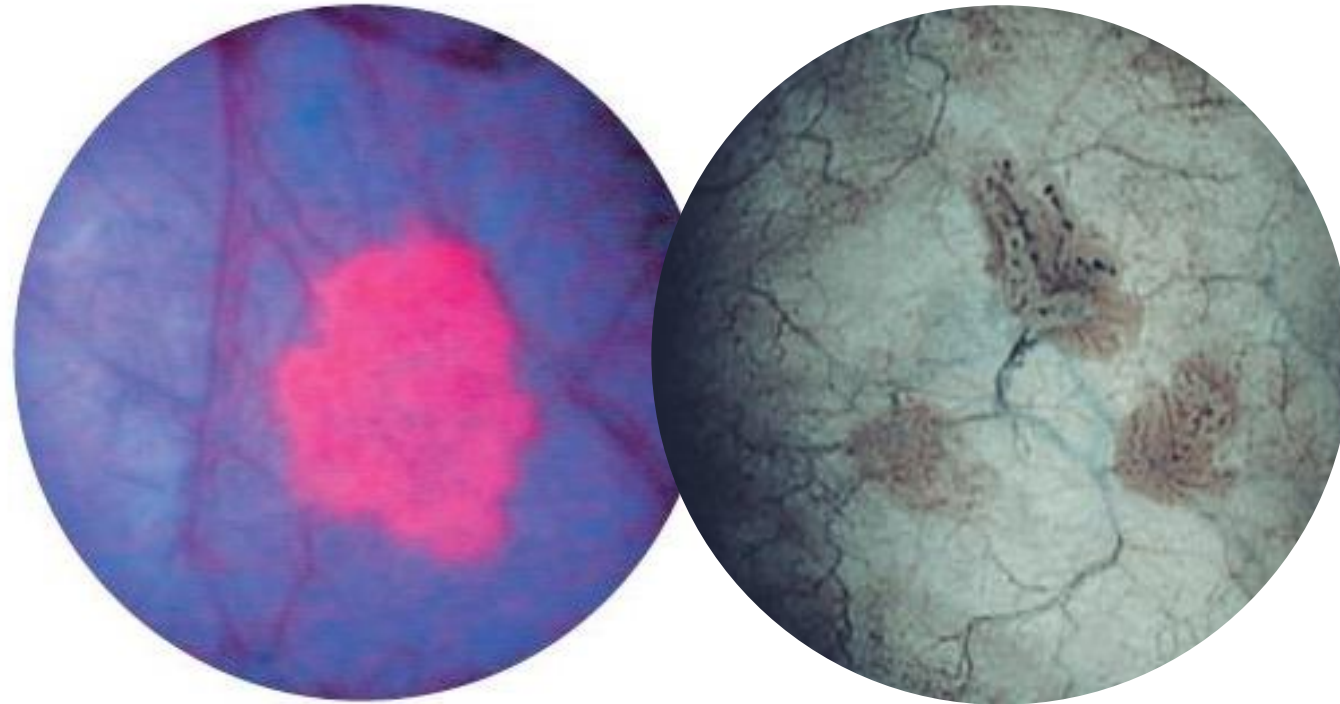
Intérêt possible

Characteristic	PDD (N=209)	White Light (N=217)
Age — yr, mean (SD)	71 (11)	70 (10)
Smoking status		
Current smoker	33 (15.8)	30 (13.8)
Previous smoker	117 (56.0)	123 (56.7)
Never	57 (27.3)	60 (27.6)
Unknown	1 (0.5)	3 (1.4)
Missing	1 (0.5)	1 (0.5)
No. of tumors		
Single	66 (31.6)	81 (37.3)
2–7	122 (58.4)	113 (52.1)
≥8	17 (8.1)	21 (9.7)
Missing	4 (1.9)	2 (0.9)
Tumor size at baseline (cm)		
<3	69 (33.0)	81 (37.3)
≥3	133 (63.6)	129 (59.4)
Missing	7 (3.3)	7 (3.2)
Histologic grade at baseline		
G1	17 (8.1)	16 (7.4)
G2	116 (55.5)	112 (51.6)
G3	72 (34.4)	86 (39.6)
Missing	4 (1.9)	3 (1.4)
Histologic stage at baseline		
pTa	150 (71.8)	160 (73.7)
pT1	64 (30.6)	66 (30.4)
Carcinoma-in-situ		
Present	27 (12.9)	24 (11.1)
Absent	180 (86.1)	190 (87.6)
Missing	2 (1.0)	3 (1.4)
EORTC risk group (score)		
Low risk (0)	0	2 (0.9)
Intermediate risk (1–9)	184 (88.0)	190 (87.6)
High risk (10–17)	17 (8.1)	15 (6.9)
Not calculable	8 (3.8)	10 (4.6)
NICE risk group		
Low risk	10 (4.8)	8 (3.7)
Intermediate risk	100 (47.8)	96 (44.2)
High risk	96 (45.9)	107 (49.3)
Not calculable	3 (1.4)	6 (2.8)

TVNIM : comment optimiser son traitement chirurgical ?



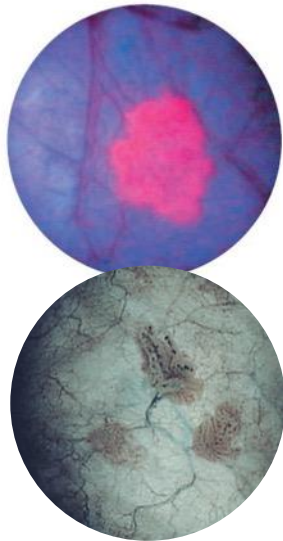
HEXVIX ou NBI ?



TVNIM : comment optimiser son traitement chirurgical ?

Luminofluorescence ou NBI : 2e méta-analyse

L'un ou l'autre mais l'un des deux !



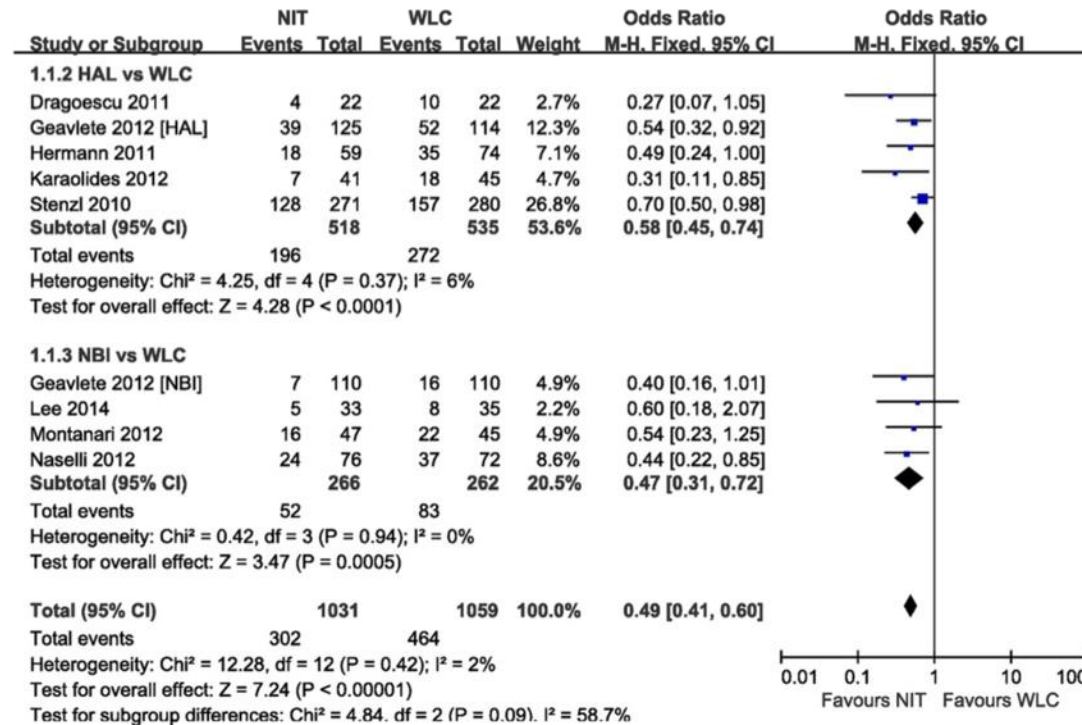
RESEARCH ARTICLE

Open Access



A network meta-analysis of therapeutic outcomes after new image technology-assisted transurethral resection for non-muscle invasive bladder cancer: 5-aminolaevulinic acid fluorescence vs hexylaminolevulinic acid fluorescence vs narrow band imaging

Joo Yong Lee¹, Kang Su Cho², Dong Hyuk Kang³, Hae Do Jung¹, Jong Kyou Kwon⁴, Cheol Kyu Oh⁴, Won Sik Ham¹ and Young Deuk Choi^{1,5*}



Pairwise meta-analysis for recurrence rate. 5-ALA- and HAL-based PDD, and NBI-guided TUR demonstrated lower recurrence rate than WLC

TVNIM : comment optimiser son traitement chirurgical ?

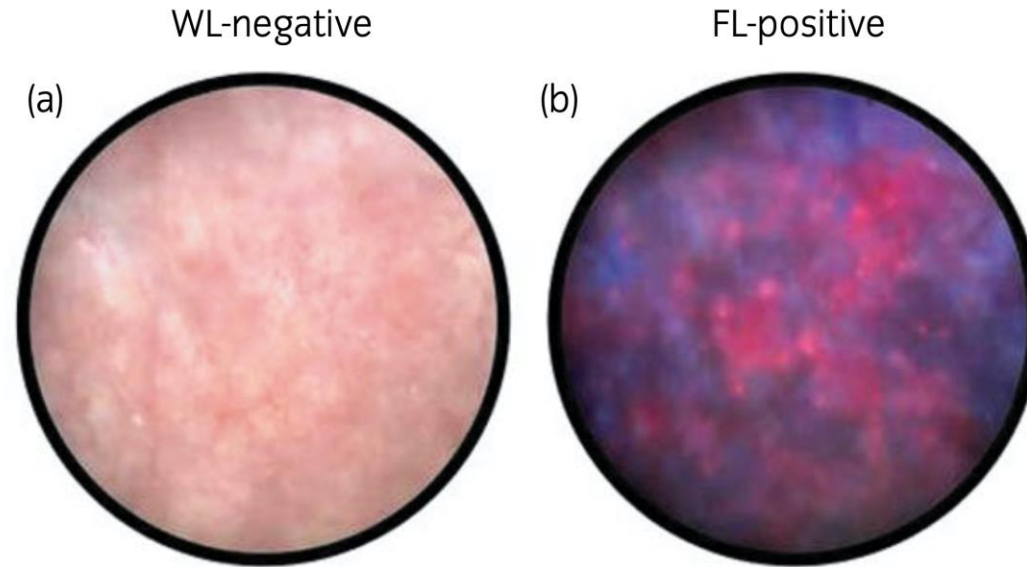
Luminofluorescence : 5-ALA per-os (20 mg/kg, 3 heures avant)

INTERNATIONAL JOURNAL OF
UROLOGY
International Journal of Urology (2018) 25, 723–729 doi: 10.1111/iju.13718

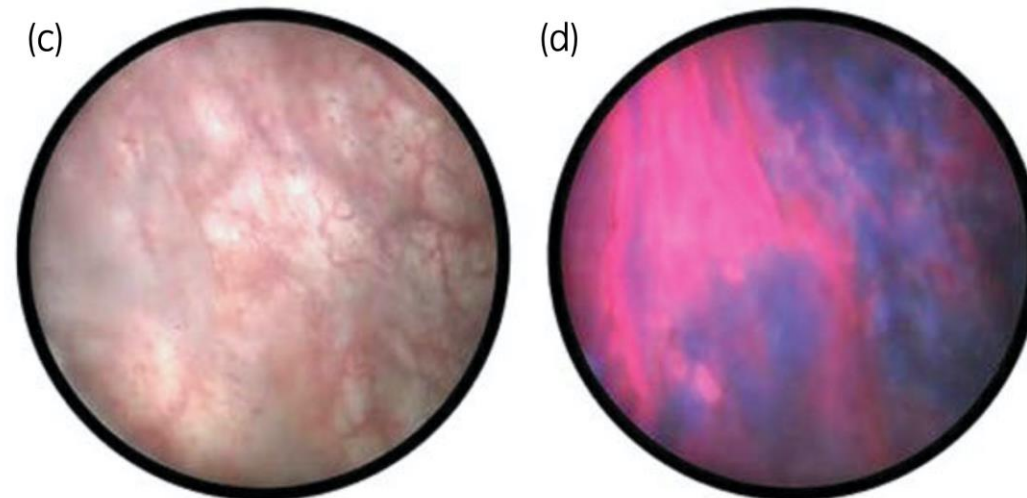
Original Article: Clinical Investigation

Oral 5-aminolevulinic acid-mediated photodynamic diagnosis using fluorescence cystoscopy for non-muscle-invasive bladder cancer: A multicenter phase III study

Tumor-positive
(CIS)



Tumor-negative
(normal mucosa)

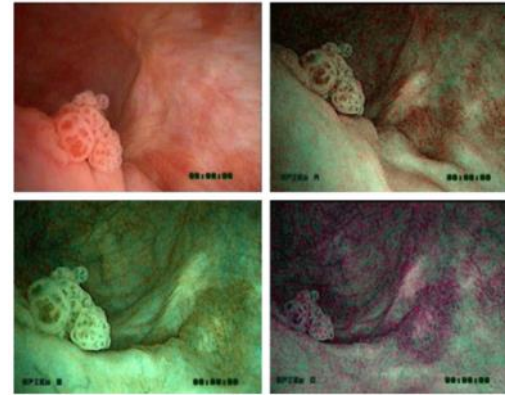


Autres techniques

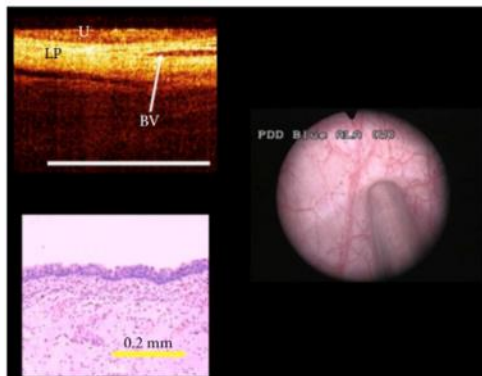
→ La « HD »



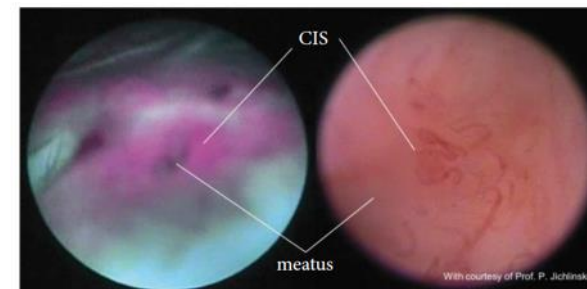
→ « SPIES »



→ « *Optical coherence tomography* »



→ Magnification endoscopique



CIS on the lateral border of the left ureteric meatus

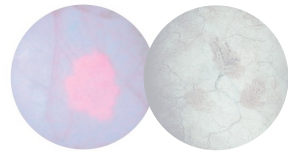
Irregular vessel loop of the CIS on high magnification

With courtesy of Prof. P. Jichinski

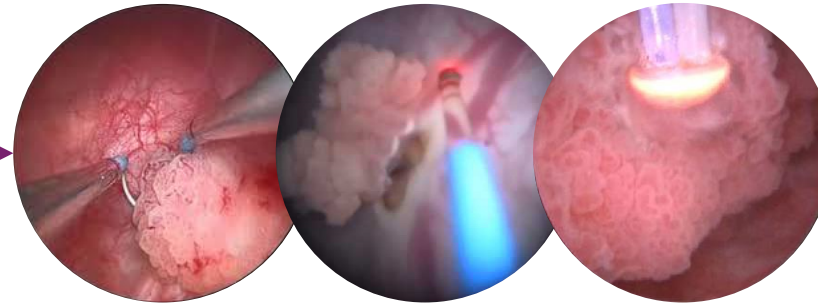
“Optimisation” de la RTUV initiale

→ Améliorer les résultats oncologiques de la RTUV

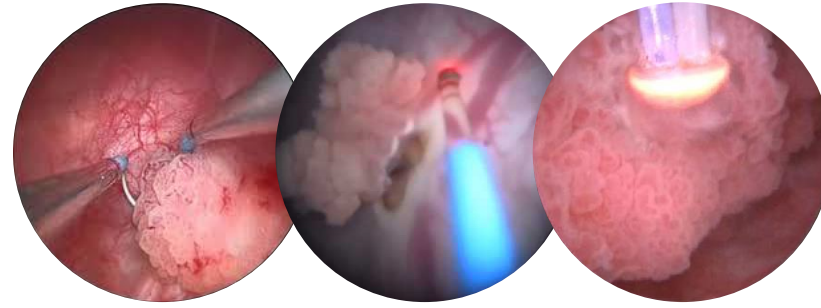
→ Mieux VOIR



→ Mieux RESEQUER

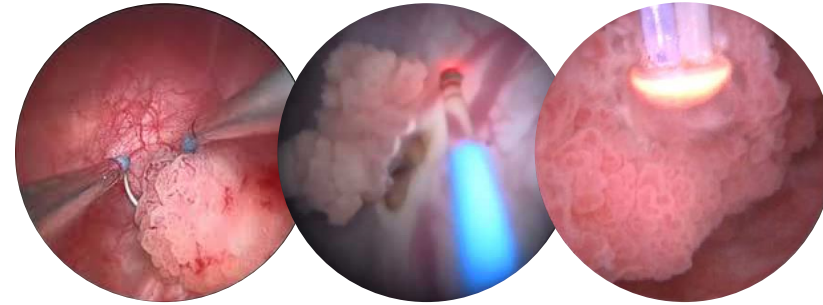


Nouvelles énergies



- Réduire l'hématurie ⇔ Meilleure hémostase
- Réduire la diffusion électrique ⇔ Stim. Obturatrice
- Réduire le risque de TURP-syndrome ⇔ Glycocol

Nouvelles énergies

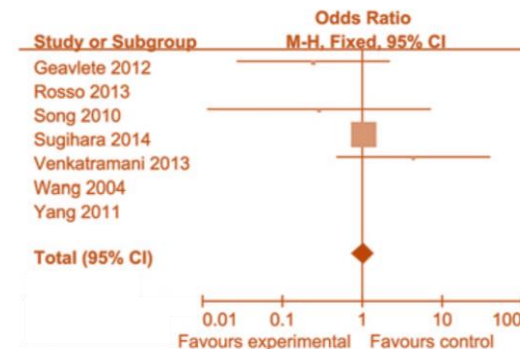


→ Réduire l'hématurie ⇔ Meilleure hémostase

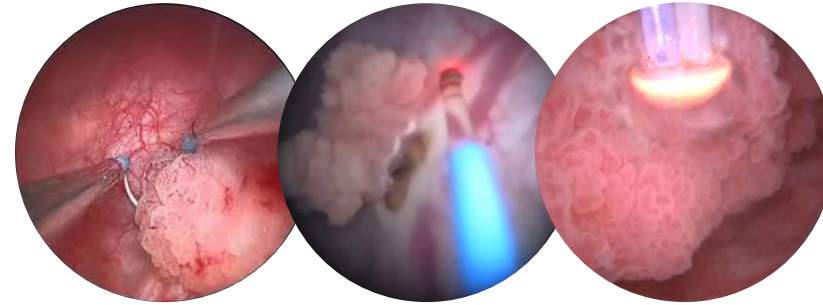
Facteur de risque : **Double anti-agrégation plaquettaire**
(i.e. AAS + Clopidogrel)

MAIS MONO vs. BIPOLAIRE

≠ Facteur de risque †



Nouvelles énergies

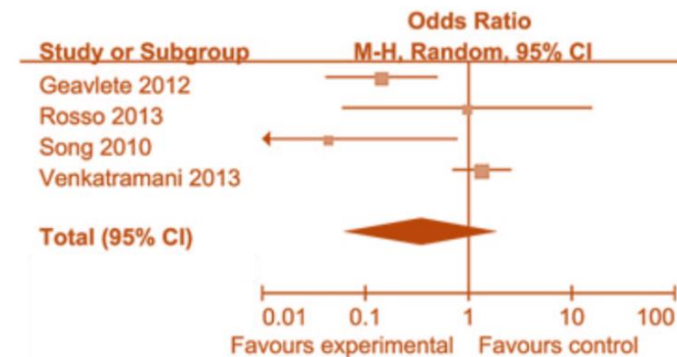


→ Réduire la diffusion électrique ⇔ Stim. Obturatrice

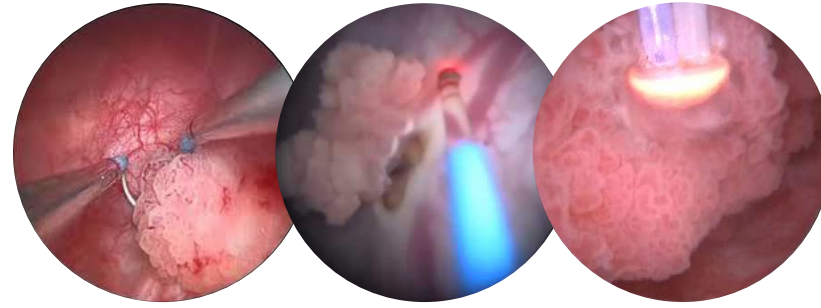
Facteur de risque : Antécédents de RTUV + Volume réséqué #
+ Age + Sexe masculin + IMC ↗

MAIS MONO vs. BIPOLAIRE

≠ Facteur de risque †



Nouvelles énergies



→ Réduire l'hématurie ⇔ Meilleure hémostase → **NON**

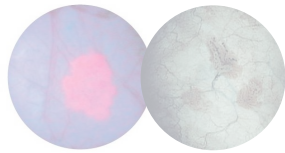
→ Réduire la diffusion électrique ⇔ Stim. Obturatrice → **NON**

→ Réduire le risque de TURP-syndrome ⇔ Glycocol → **???**

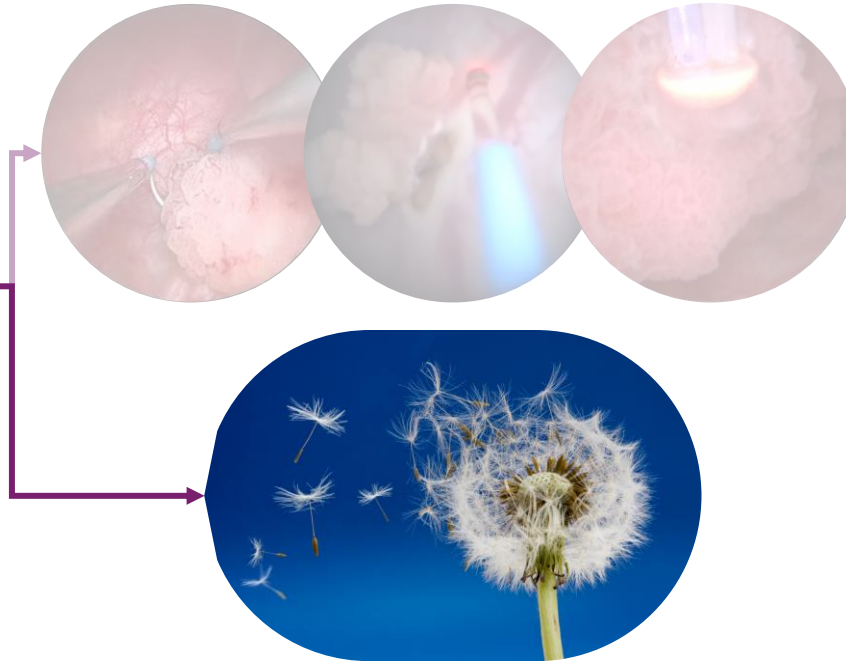
“Optimisation” de la RTUV initiale

→ Améliorer les résultats oncologiques de la RTUV

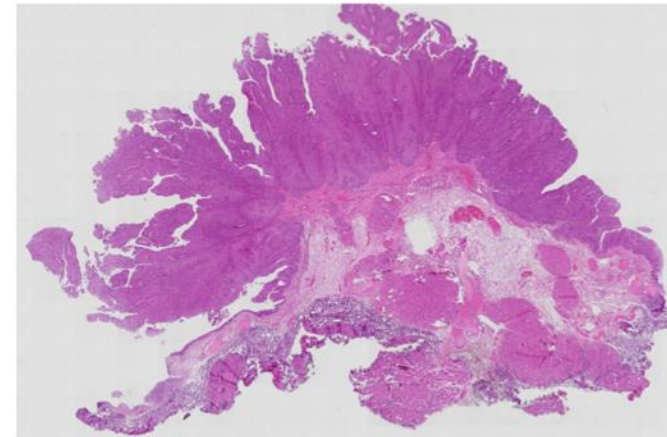
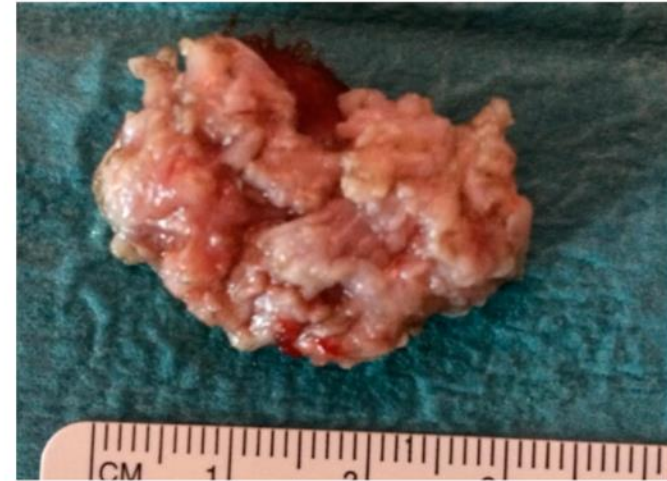
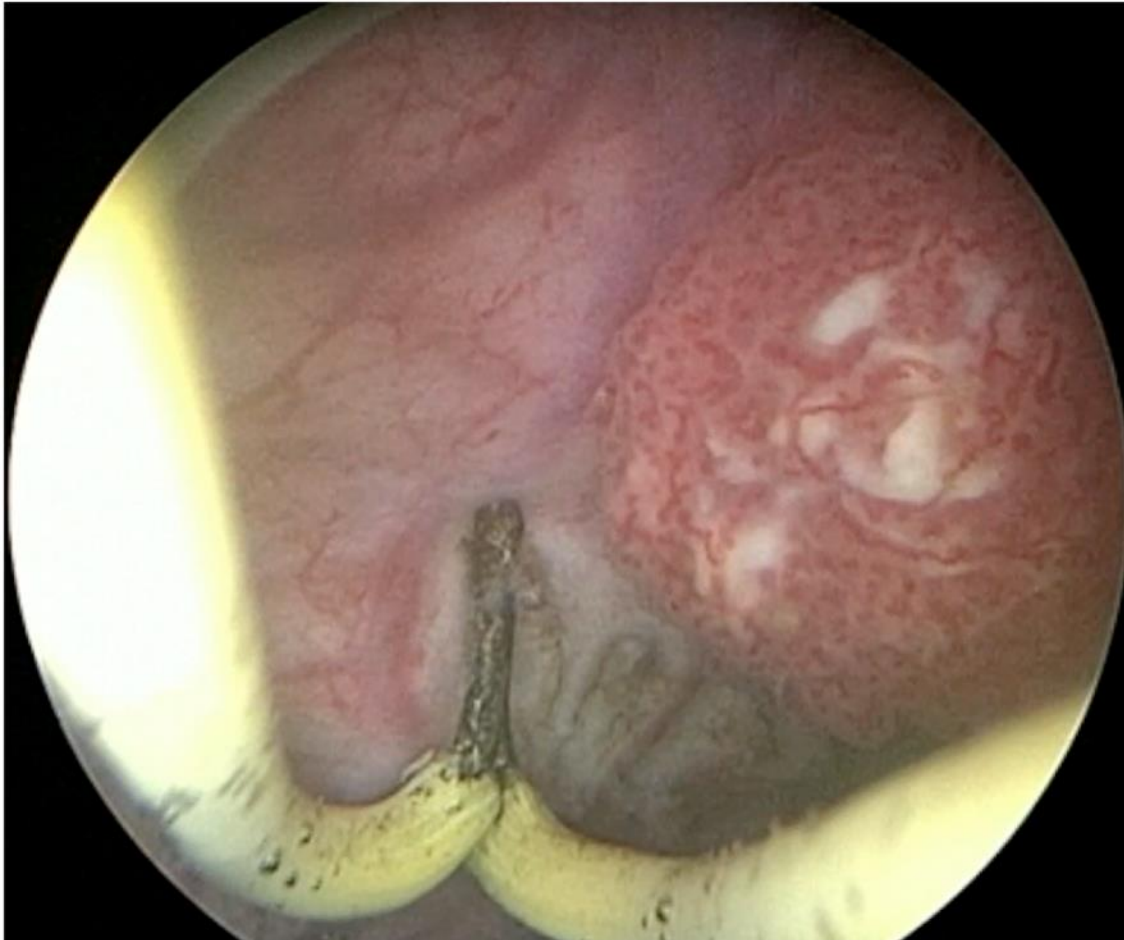
→ Mieux VOIR



→ Mieux RESEQUER



Résection monobloc



TVNIM : comment optimiser son traitement chirurgical ?

Résection monobloc : 3^e méta-analyse



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International Journal of Surgery

journal homepage: www.elsevier.com/locate/ijso



Review

Systematic review and meta-analysis of randomized controlled trials of perioperative outcomes and prognosis of transurethral en-bloc resection vs. conventional transurethral resection for non-muscle-invasive bladder cancer

Zhouyue Li^{a,1}, Zhongbao Zhou^{a,1}, Yuanshan Cui^{a,b,1}, Yong Zhang^{a,*}

^a Department of Urology, Beijing Tiantan Hospital, Capital Medical University, Beijing, 100070, China

^b Department of Urology, Yantai Yuhuangding Hospital Affiliated to Medical College of Qingdao University, Yantai, 264000, China

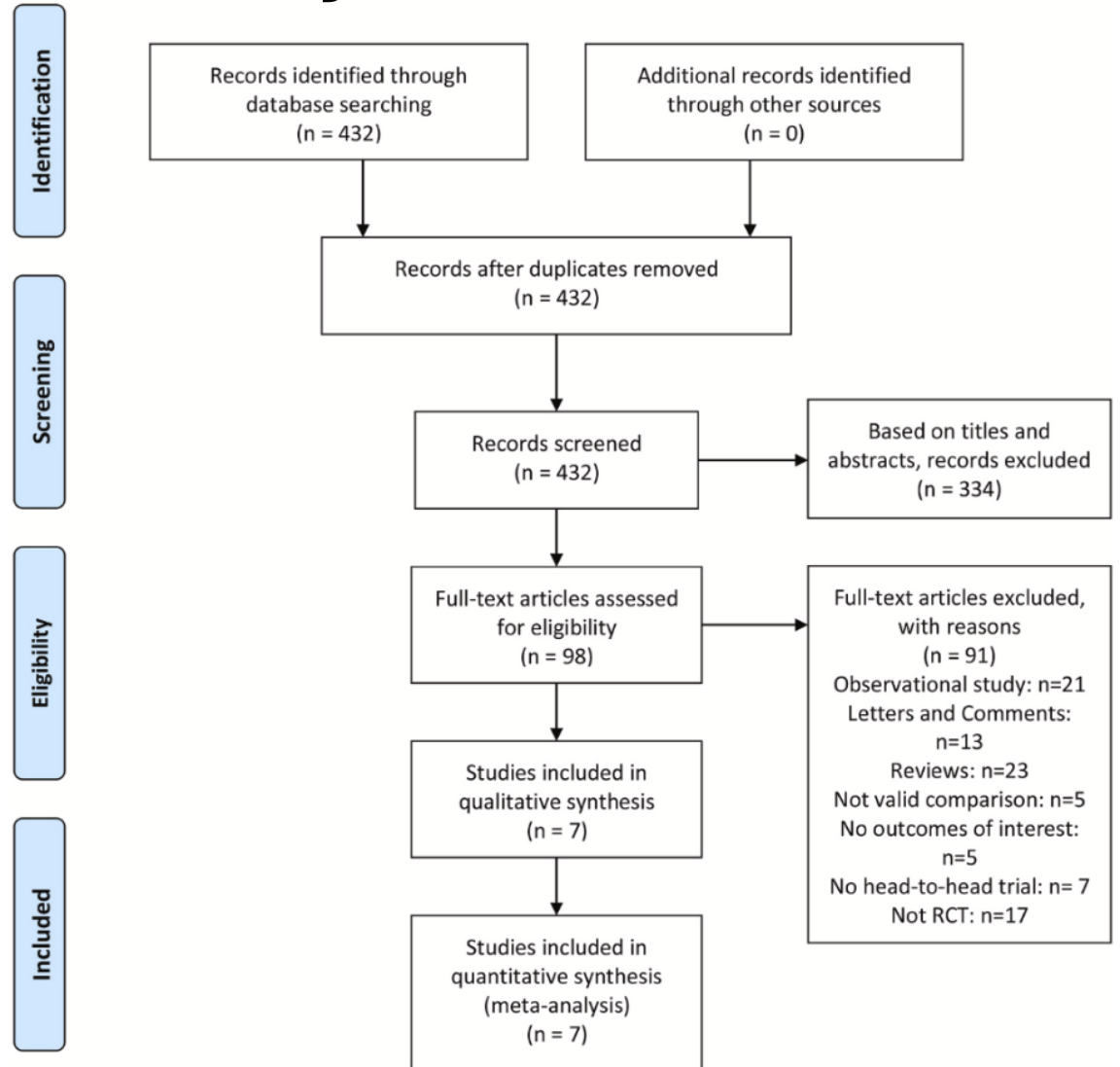
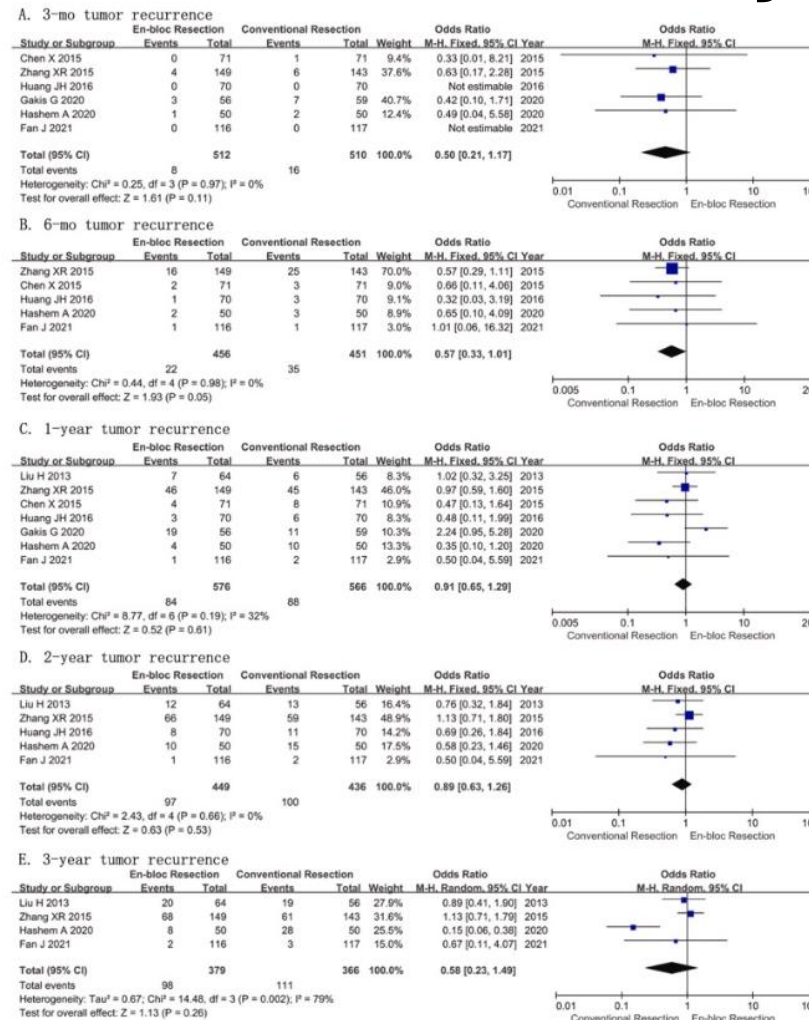


Fig. 1. A flow diagram of the study selection process. RCT: randomized controlled trial.

TVNIM : comment optimiser son traitement chirurgical ?

Résection monobloc : 3^e méta-analyse

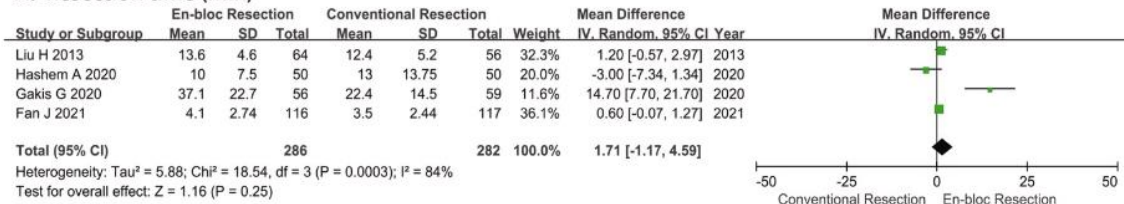


→ Tendence à l'amélioration / Equivalence sur le plan oncologique

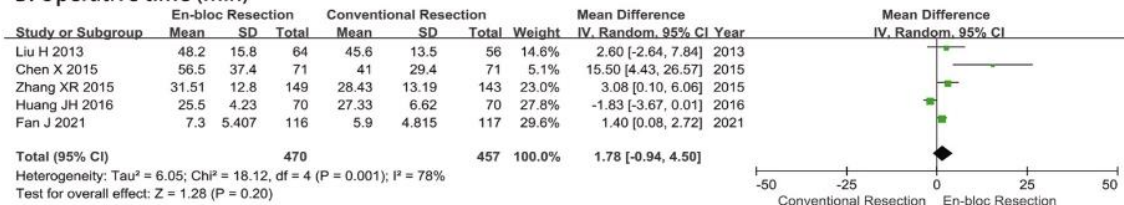
TVNIM : comment optimiser son traitement chirurgical ?

Résection monobloc : 3^e méta-analyse

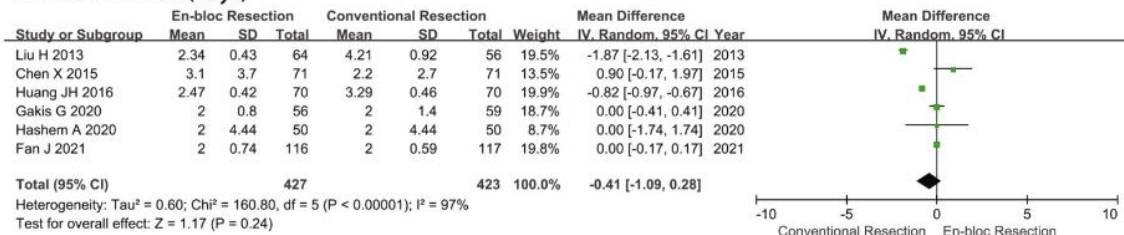
A. Resection time (min)



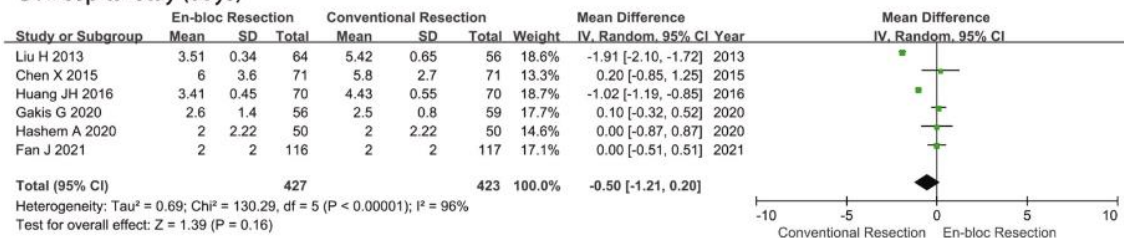
B. Operative time (min)



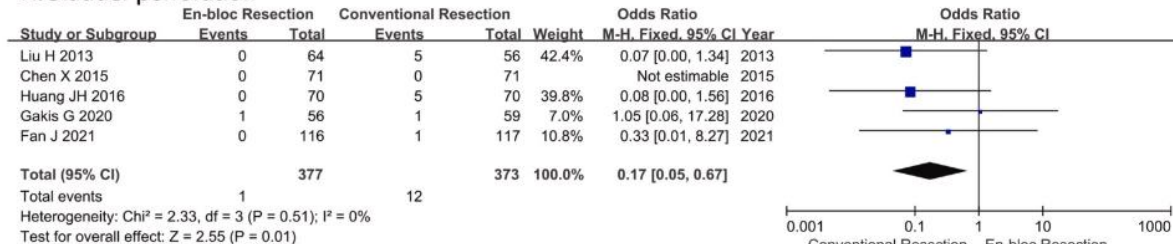
C. Catheter time (days)



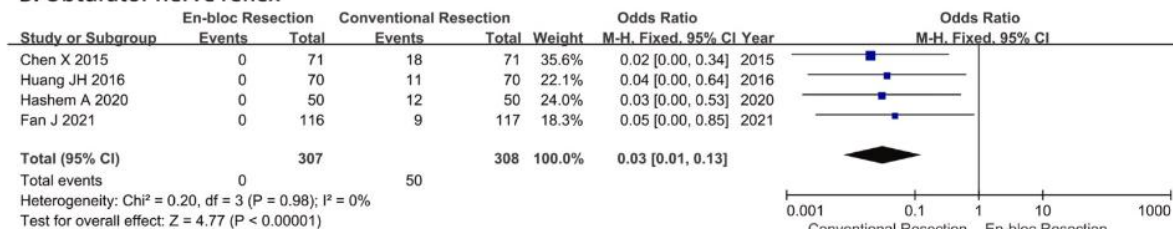
D. Hospital stay (days)



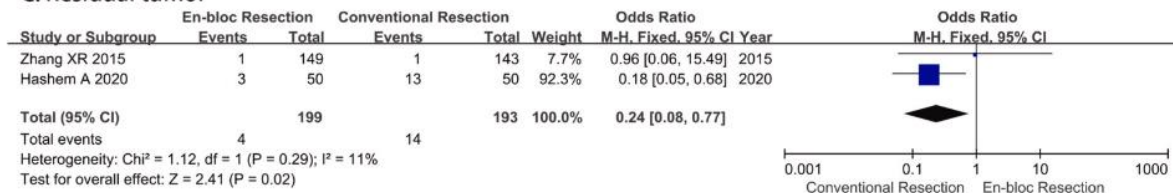
A. Bladder perforation



B. Obturator nerve reflex



C. Residual tumor



D. Re-TURBT



→ Tendence à l'amélioration / Equivalence sur le plan oncologique

→ Amélioration de la qualité globale de la RTUV

TVNIM : comment optimiser son traitement chirurgical ?

Résection monobloc : 4^e méta-analyse !

REVIEW

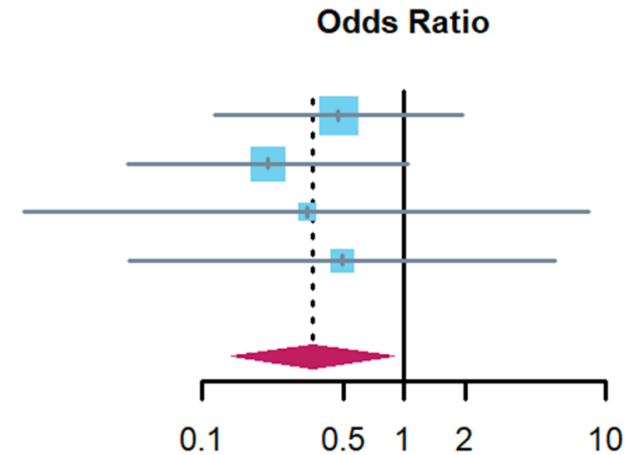
Cancer Medicine WILEY

Efficiency of transurethral en-bloc resection vs. conventional transurethral resection for non-muscle-invasive bladder cancer: An umbrella review

Deng-xiong Li¹ | Qing-xin Yu² | Rui-cheng Wu¹ | Jie Wang¹ | De-chao Feng^{1,3} | Shi Deng¹

Study	EBRT		cTURBT	
	Events	Total	Events	Total
Gakis_G2020	3	42	7	50
Badawy_A2022	2	54	8	52
Chen_X2014	0	71	1	71
Hashem_A2021	1	50	2	50
Random effects model		217		223

Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.89$

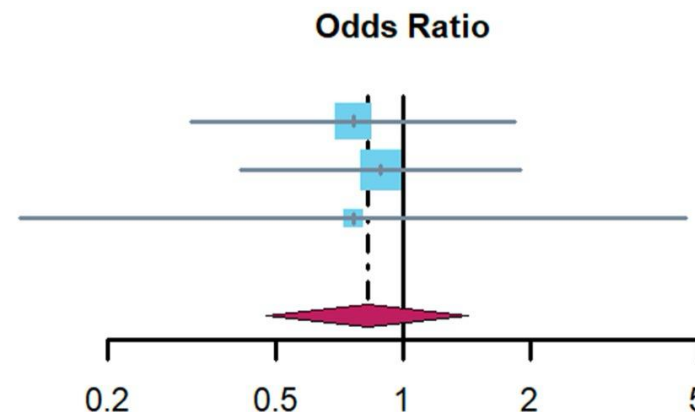


OR	95%-CI	Weight
0.47	[0.11; 1.96]	43.1%
0.21	[0.04; 1.05]	33.9%
0.33	[0.01; 8.21]	8.4%
0.49	[0.04; 5.58]	14.7%
0.35	[0.14; 0.89]	100.0%

→ Diminution du **risque de récurrence à 3 mois**

Study	EBRT		cTURBT	
	Events	Total	Events	Total
Liu_H(24mo)2013	12	64	13	56
Liu_H(36mo)2013	20	64	19	56
Fan_JH2021	2	86	3	99
Common effect model		214		211

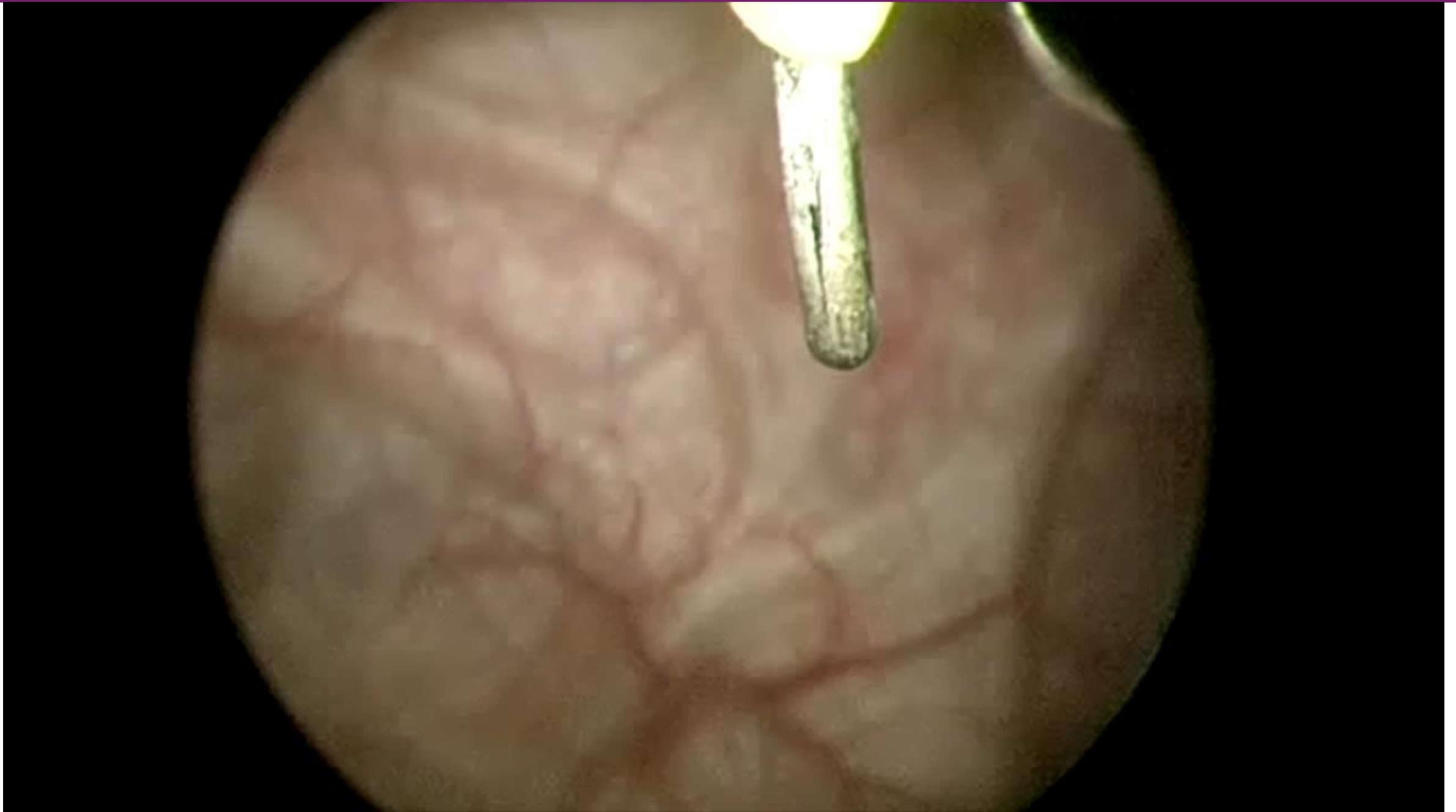
Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.97$



OR	95%-CI	Weight
0.76	[0.32; 1.84]	40.3%
0.89	[0.41; 1.90]	49.9%
0.76	[0.12; 4.67]	9.8%
0.82	[0.48; 1.43]	100.0%

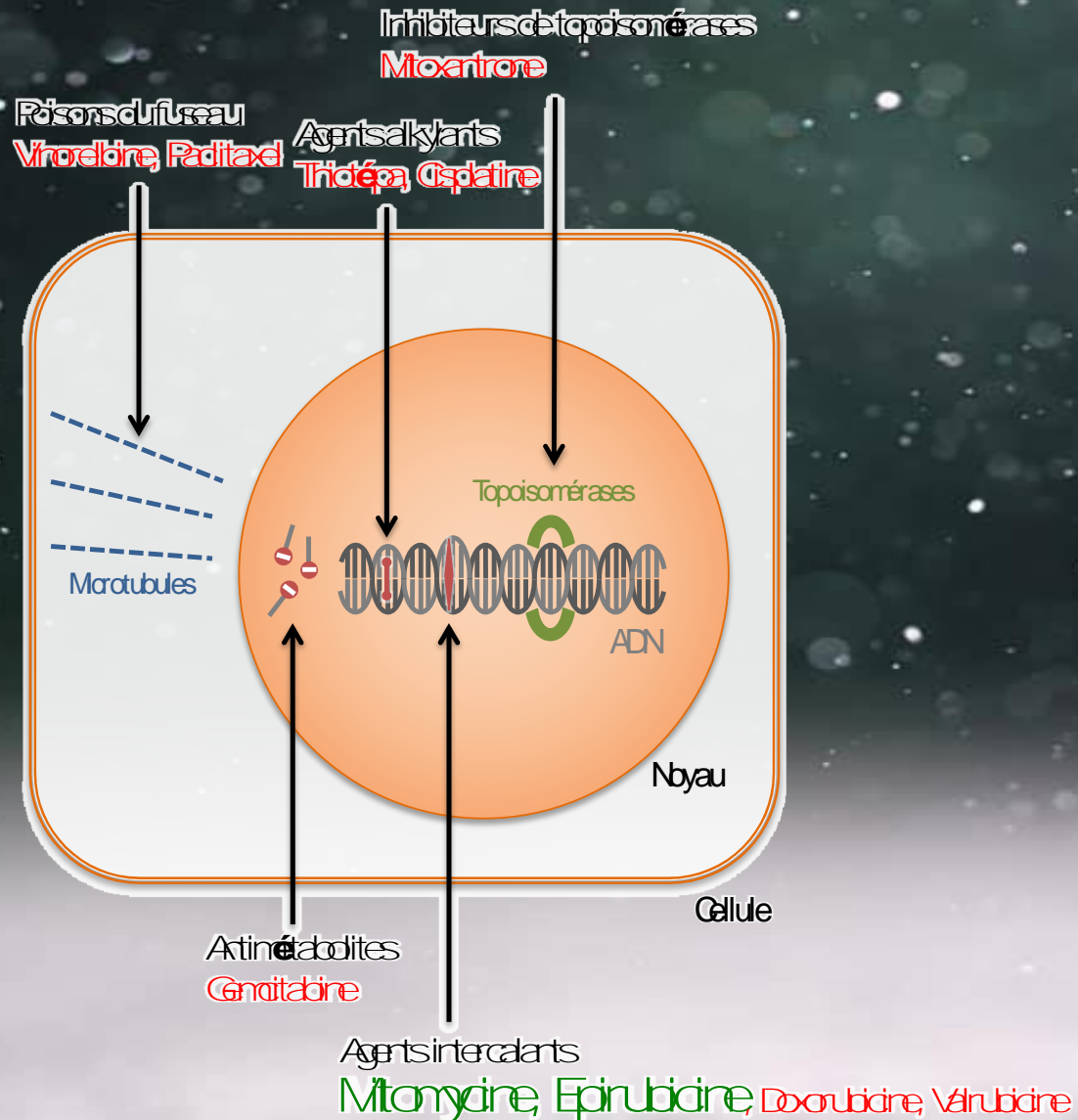
→ Tendence uniquement à 12 mois

TVNIM : comment optimiser son traitement chirurgical ?



TVNIM : comment optimiser son traitement chirurgical ?

IPOP ?



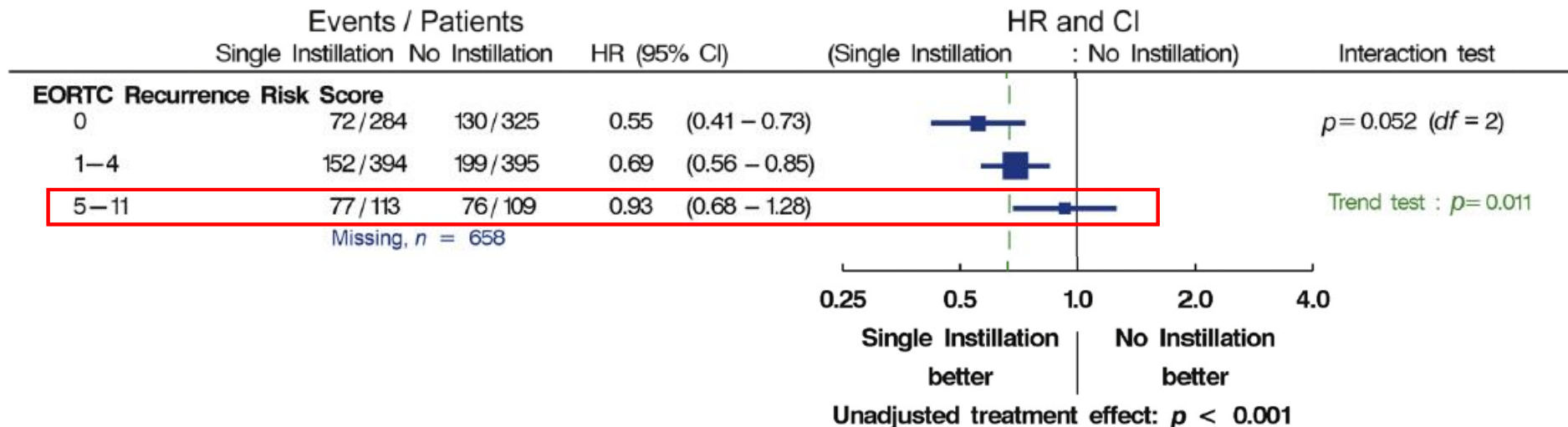
TVNIM : comment optimiser son traitement chirurgical ?

IPOP : LA méta-analyse

Systematic Review and Individual Patient Data Meta-analysis of Randomized Trials Comparing a Single Immediate Instillation of Chemotherapy After Transurethral Resection with Transurethral Resection Alone in Patients with Stage pTa–pT1 Urothelial Carcinoma of the Bladder: Which Patients Benefit from the Instillation?

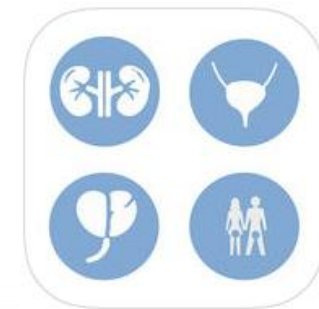
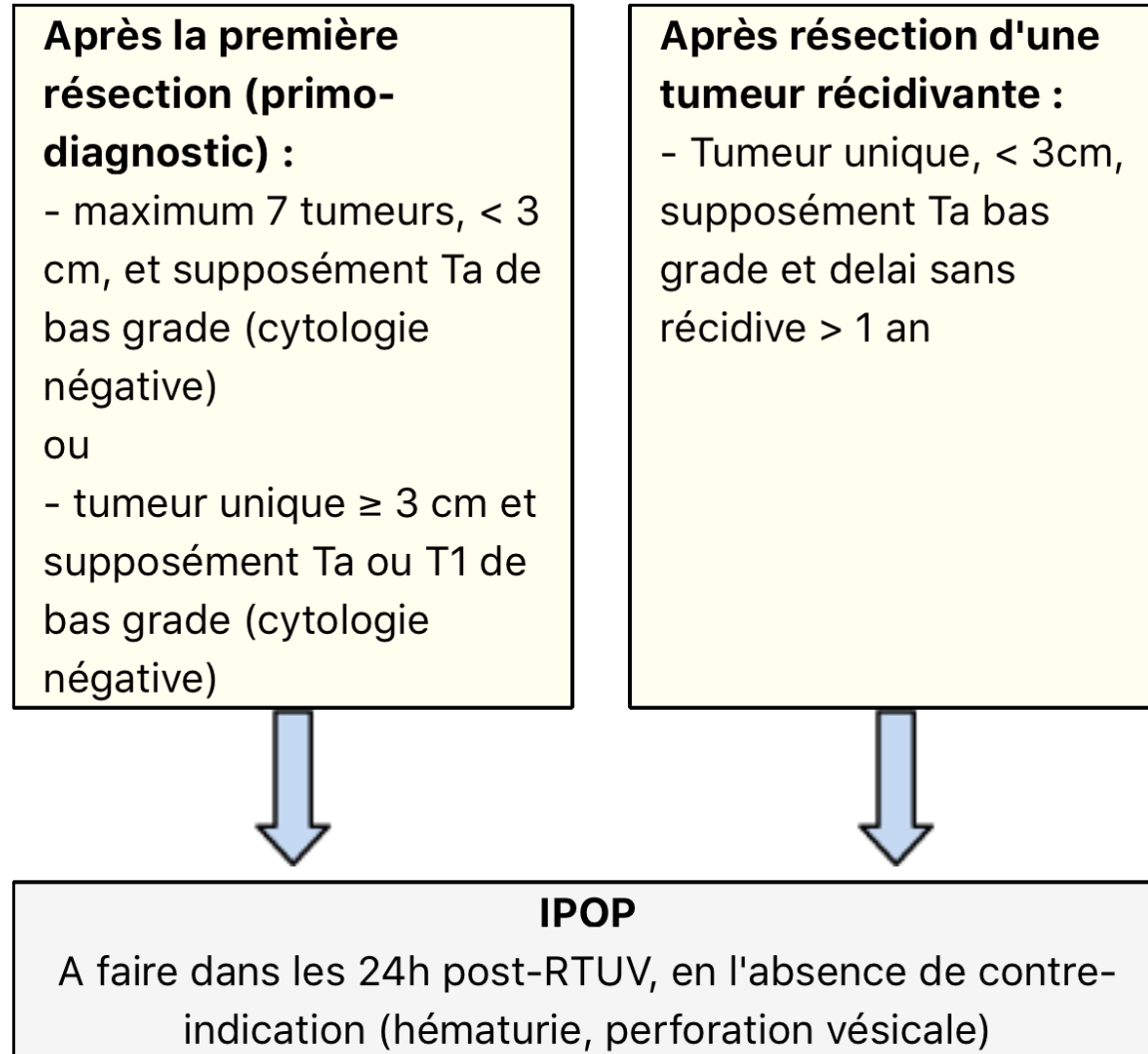
Richard J. Sylvester^{a,*}, Willem Oosterlinck^b, Sten Holmang^c, Matthew R. Sydes^d, Alison Birtle^e, Sigurdur Gudjonsson^f, Cosimo De Nunzio^g, Kikuo Okamura^h, Eero Kaasinenⁱ, Eduardo Solsona^j, Bedeir Ali-El-Dein^k, Can Ali Tatar^l, Brant A. Inman^m, James N'Dowⁿ, Jorg R. Oddens^o, Marek Babjuk^p

Time to First Recurrence



TVNIM : comment optimiser son traitement chirurgical ?

IPOP : LA méta-analyse



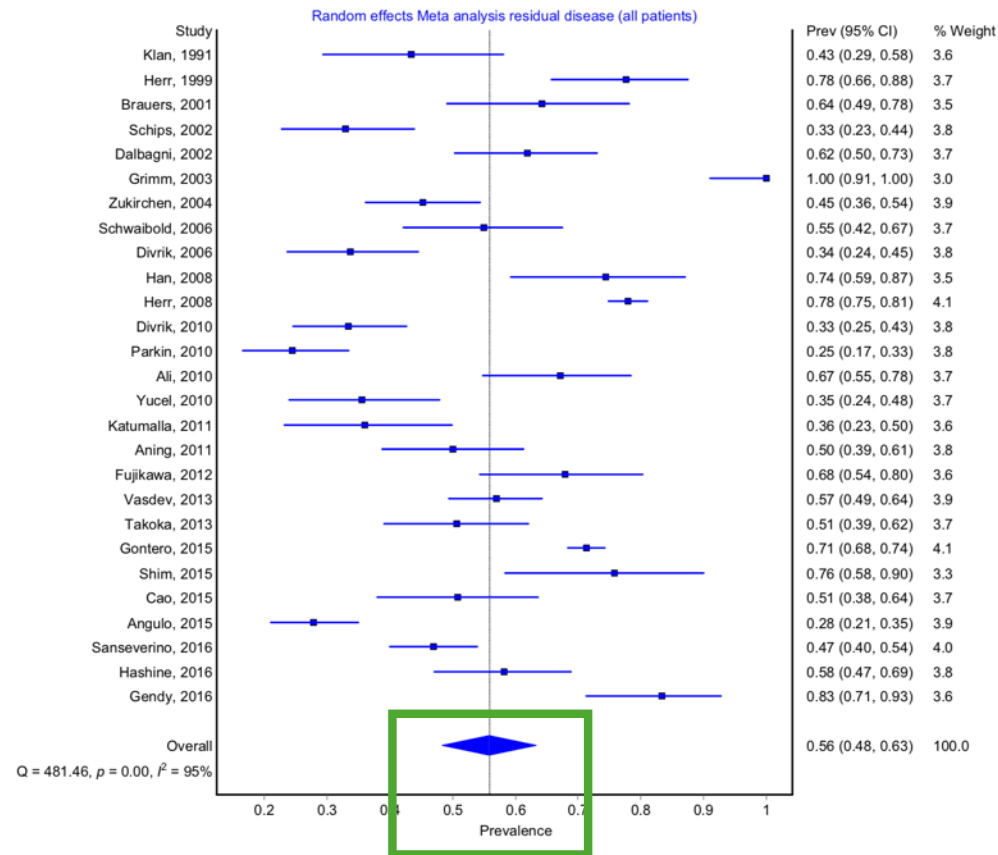
TVNIM : comment optimiser son traitement chirurgical ?

RTUV de 2nd Look ?



TVNIM : comment optimiser son traitement chirurgical ?

2nd Look : 2 méta-analyses → Diminution TV résiduelles



Oncology

Clinical Value of Transurethral Second Resection of Bladder Tumor: Systematic Review



Jakub Dobruch, Andrzej Borówka, and Harry W. Herr

Review – Urothelial Cancer

Role of Restaging Transurethral Resection for T1 Non-muscle invasive Bladder Cancer: A Systematic Review and Meta-analysis

Angelo Naselli^{a,*}, Rodolfo Hurlle^b, Stefano Paparella^a, Nicolò Maria Buffi^b, Giovanni Lughezzani^b, Giuliana Lista^b, Paolo Casale^b, Alberto Saita^b, Massimo Lazzari^b, Giorgio Guazzoni^c

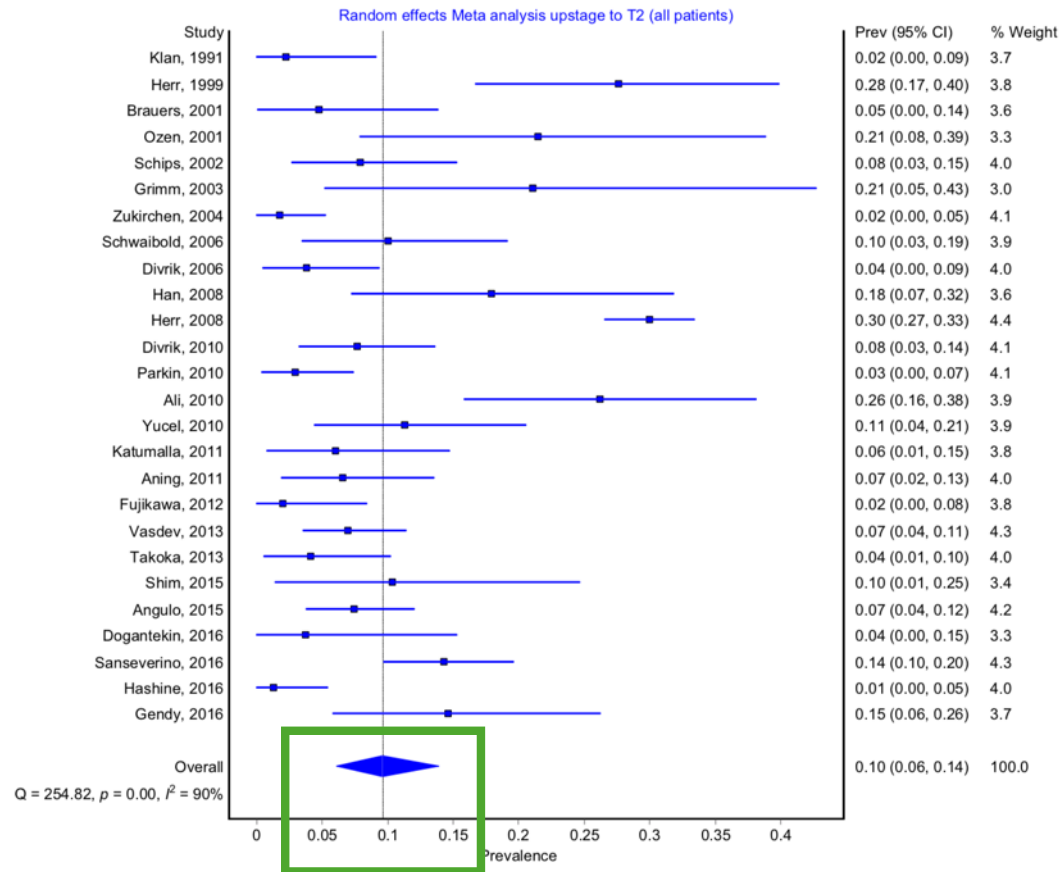
^aUrology Department, Ospedale San Giuseppe, Gruppo Multimedica, Milan, Italy; ^bUrology Department, Istituto Clinico Humanitas IRCCS, Rozzano, Italy; ^cUrology Department, Istituto Clinico Humanitas IRCCS, Humanitas University, Rozzano, Italy

Résection de réévaluation (2nd look)

RTUV incomplète et/ou Muscle non vu et/ou pT1 et/ou Haut Grade

TVNIM : comment optimiser son traitement chirurgical ?

2nd Look : 2 méta-analyses → Meilleure stadification



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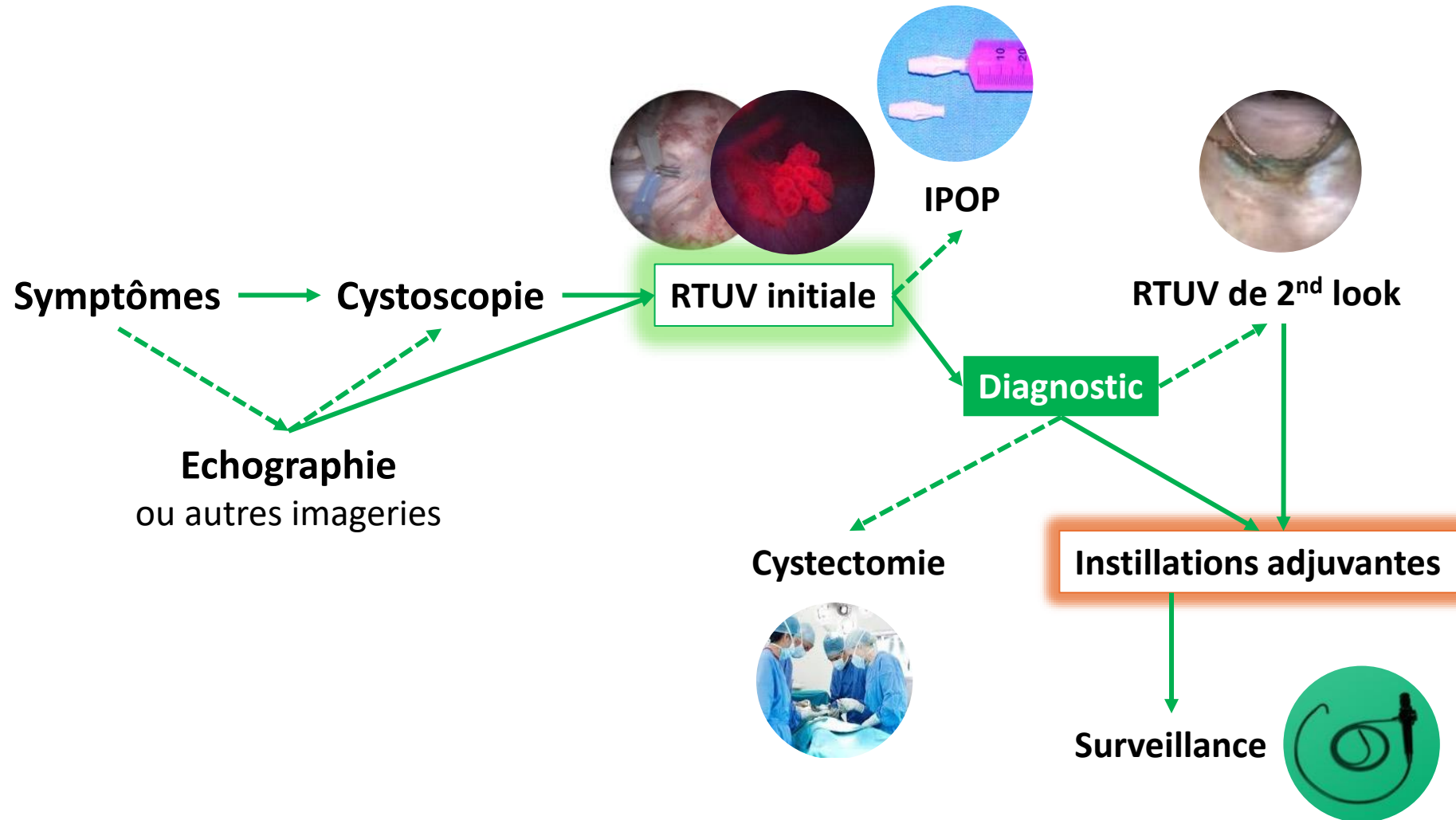
Angelo Naselli^{a,*}, Rodolfo Hurlle^b, Stefano Paparella^a, Nicolò Maria Buffi^b, Giovanni Lughezzani^b, Giuliana Lista^b, Paolo Casale^b, Alberto Saita^b, Massimo Lazzeri^b, Giorgio Guazzoni^c

^aUrology Department, Ospedale San Giuseppe, Gruppo Multimedica, Milan, Italy; ^bUrology Department, Istituto Clinico Humanitas IRCCS, Rozzano, Italy; ^cUrology Department, Istituto Clinico Humanitas IRCCS, Humanitas University, Rozzano, Italy

Résection de réévaluation (2nd look)

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Conclusion : la RTUV « sur-mesure »



Conclusion : la RTUV « sur-mesure »

Le Sasanlimab de Pfizer en association avec le BCG améliore la survie sans événement chez les patients atteints d'un cancer de la vessie non invasif sur le plan musculaire, naïf au BCG et à haut risque

- Des résultats cliniquement significatifs et statistiquement significatifs sont les premières données pivots de phase 3 pour le sasanlimab, un inhibiteur PD-1 administré par voie sous-cutanée
- S'il est approuvé, le sasanlimab serait le premier inhibiteur PD-1, en association avec le BCG, à prolonger significativement la survie sans événement dans cette population de patients
- Le NMIBC à haut risque naïf de traitement est un domaine où les besoins thérapeutiques sont largement non satisfaits, et où les options thérapeutiques sont restées largement inchangées depuis plus de trois décennies.



PFIZER INC.

Bourse de New York : PFE  

Echographie
ou autres imageries

Cystectomie



Instillations adjuvantes

Surveillance

