

BrachyNext



Working Together to Shape the Future of
Brachytherapy

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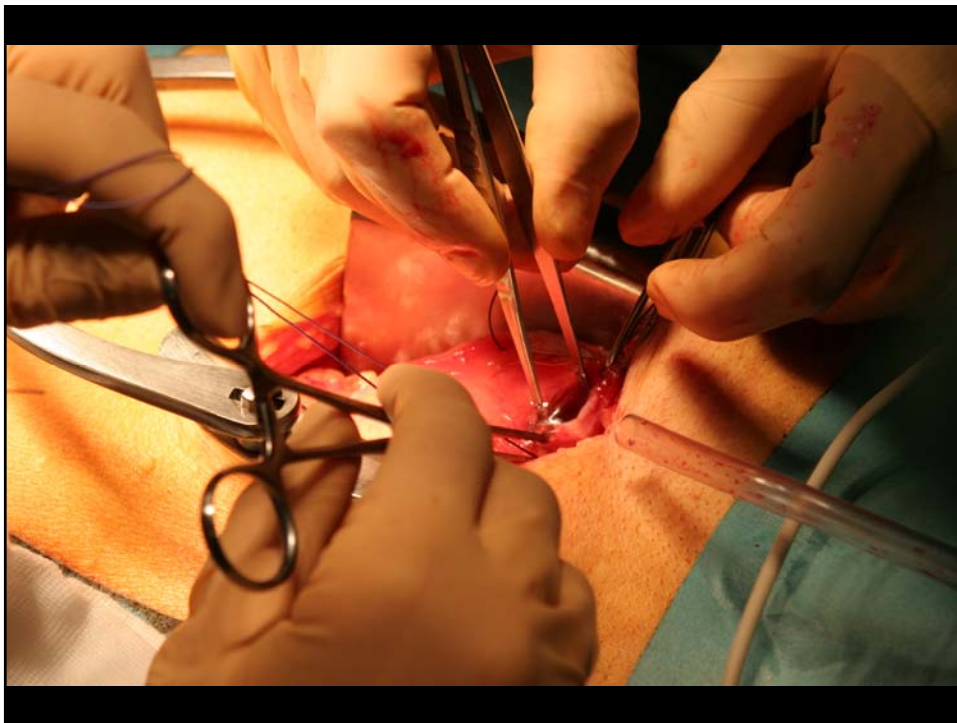
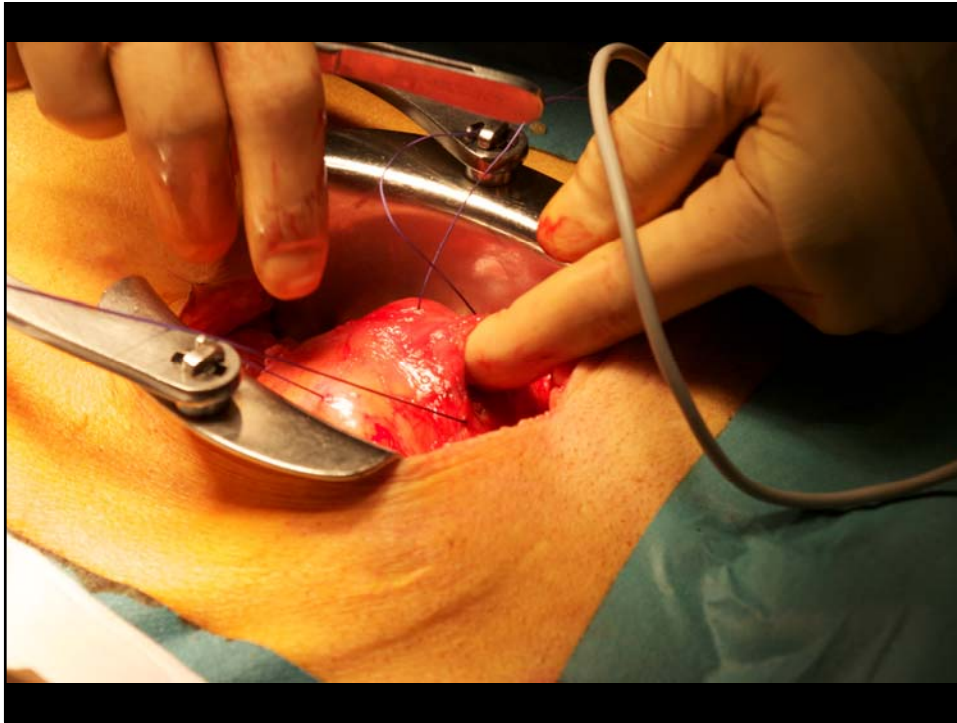
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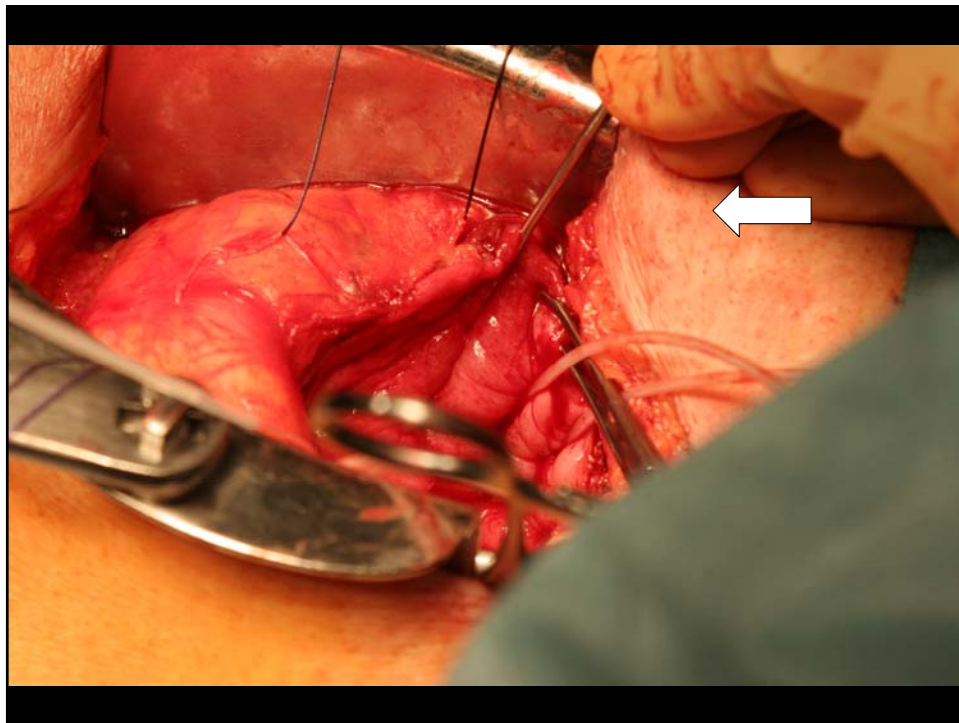
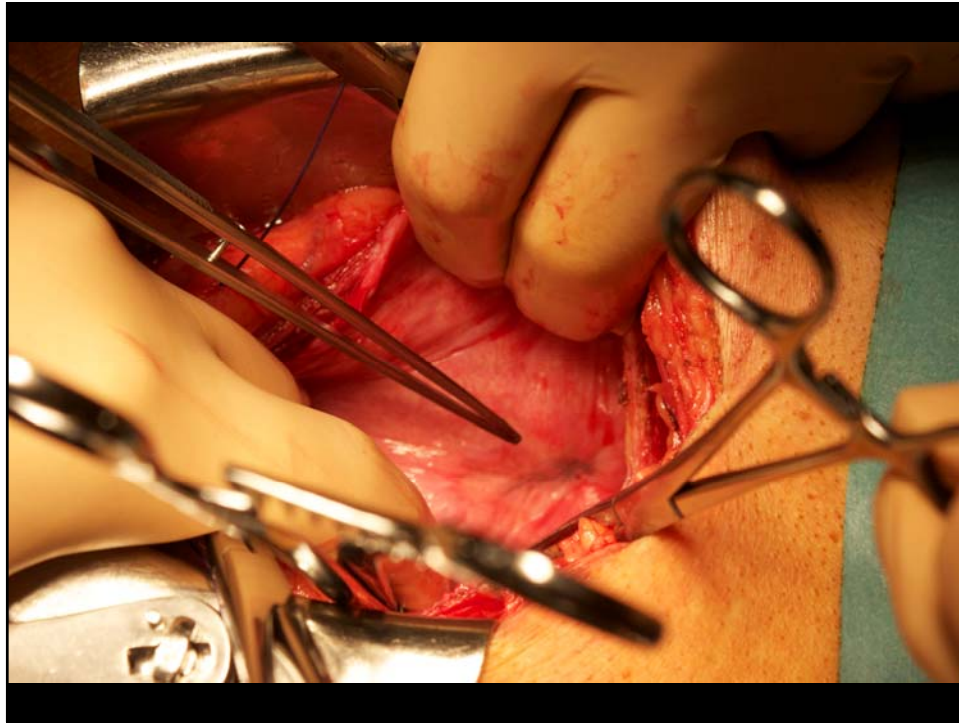
Bladder Cancer: Is Brachytherapy an Alternative for Cystectomy?

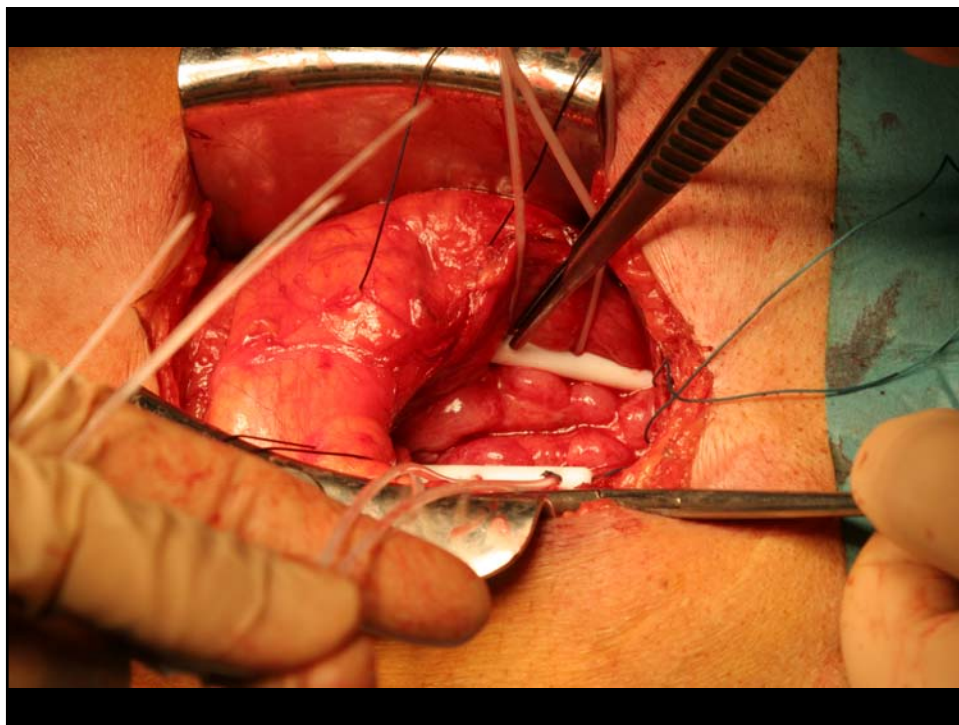
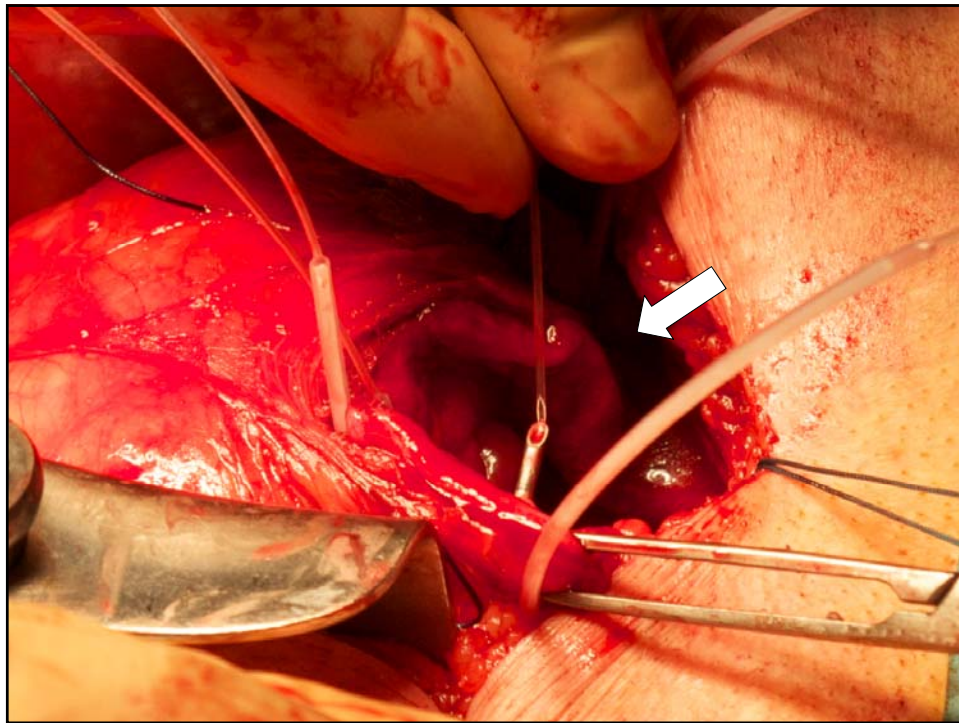
Bradley R. Pieters, MD, PhD
Academic Medical Center/University of Amsterdam
Amsterdam, The Netherlands

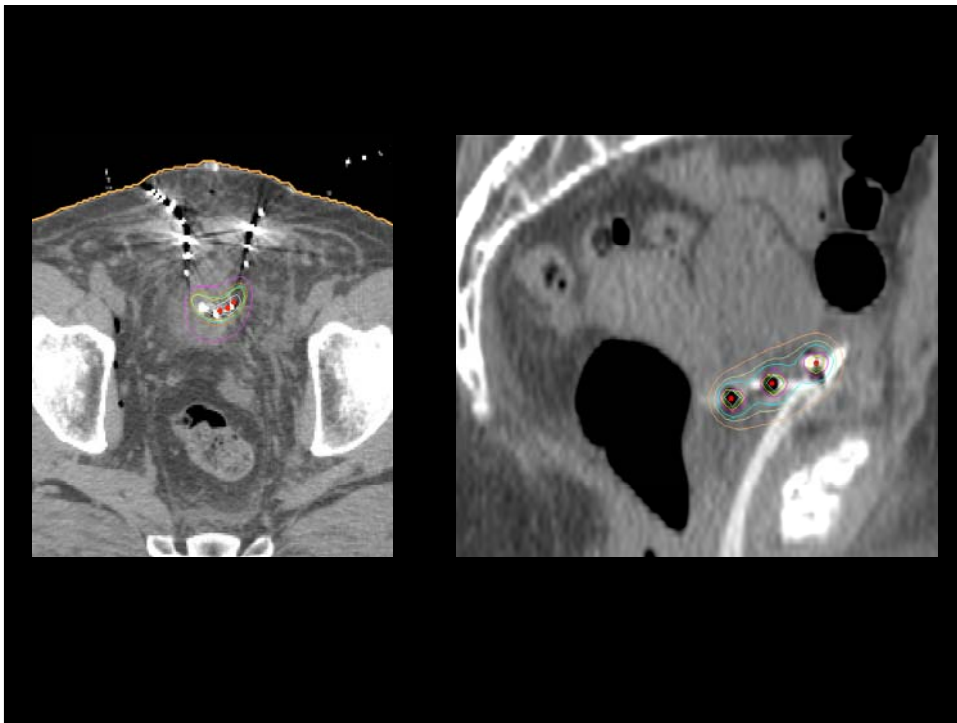
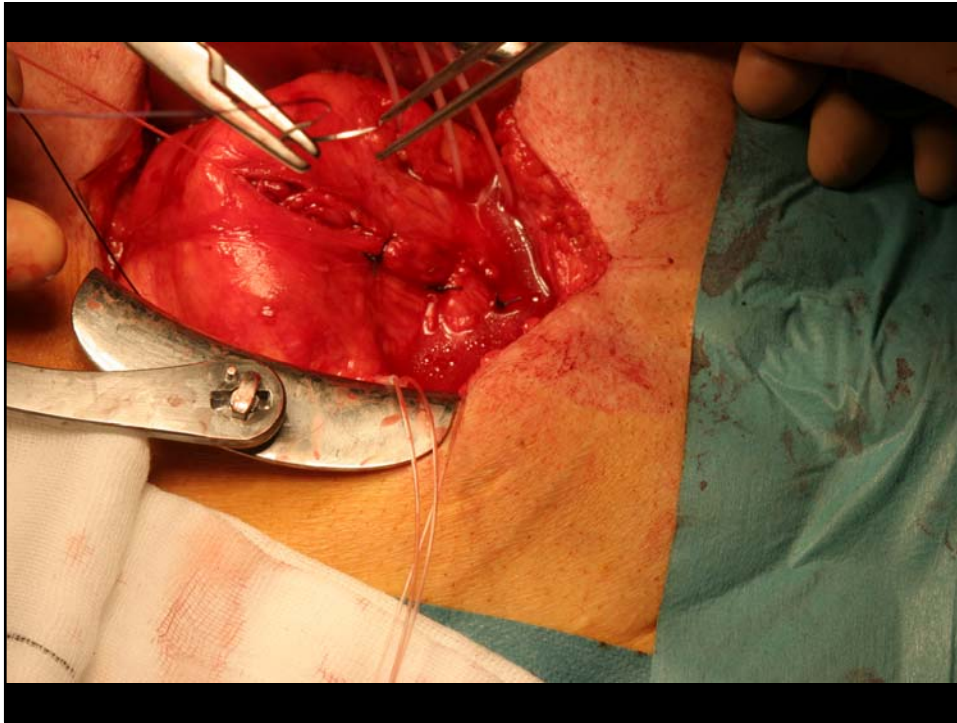
Disclosure

Bradley R. Pieters, MD, PhD, is a consultant for ELEKTA/Nucletron.











Robot-Assisted Brachytherapy



Courtesy:

E. van der Steen-Banasik, MD; Arnhem Radiotherapy Institution, Arnhem, The Netherlands
G. Smits, MD, PhD; Rijnstate Hospital, Arnhem, The Netherlands

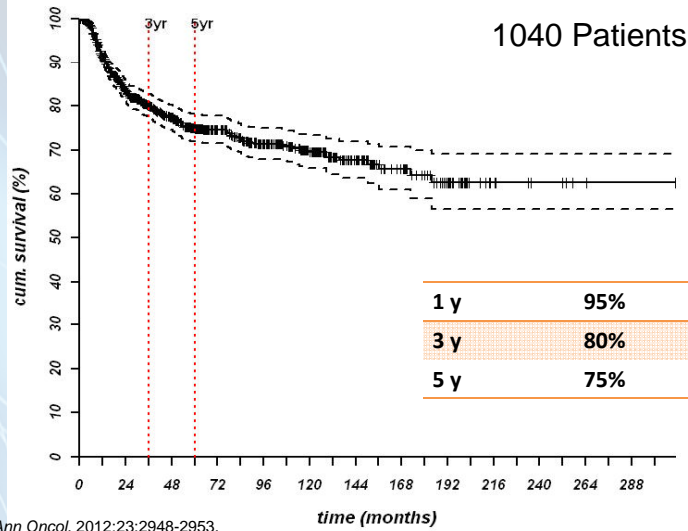
Indication

- Solitary tumors
- ≤ 5 cm
- pT1–2 (small pT3)
- **Preferably** not located in the bladder neck



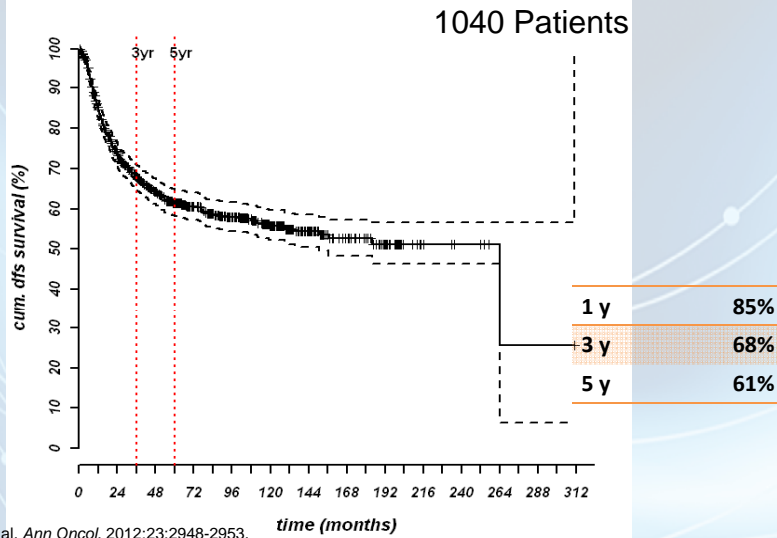
Results: Dutch Cohort Study

Local recurrence free survival



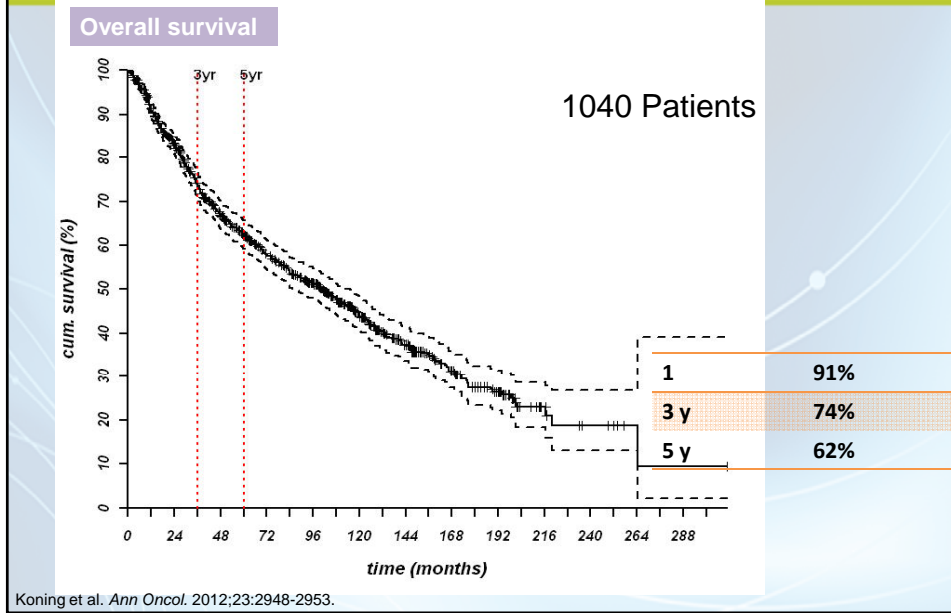
Results: Dutch Cohort Study

Disease-free survival





Results: Dutch Cohort Study

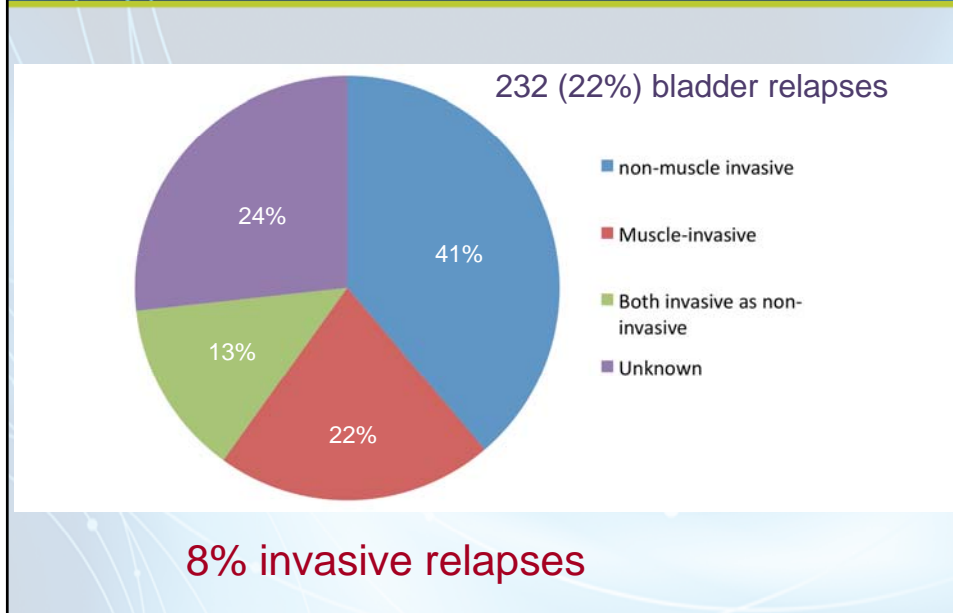


Cystectomy Series

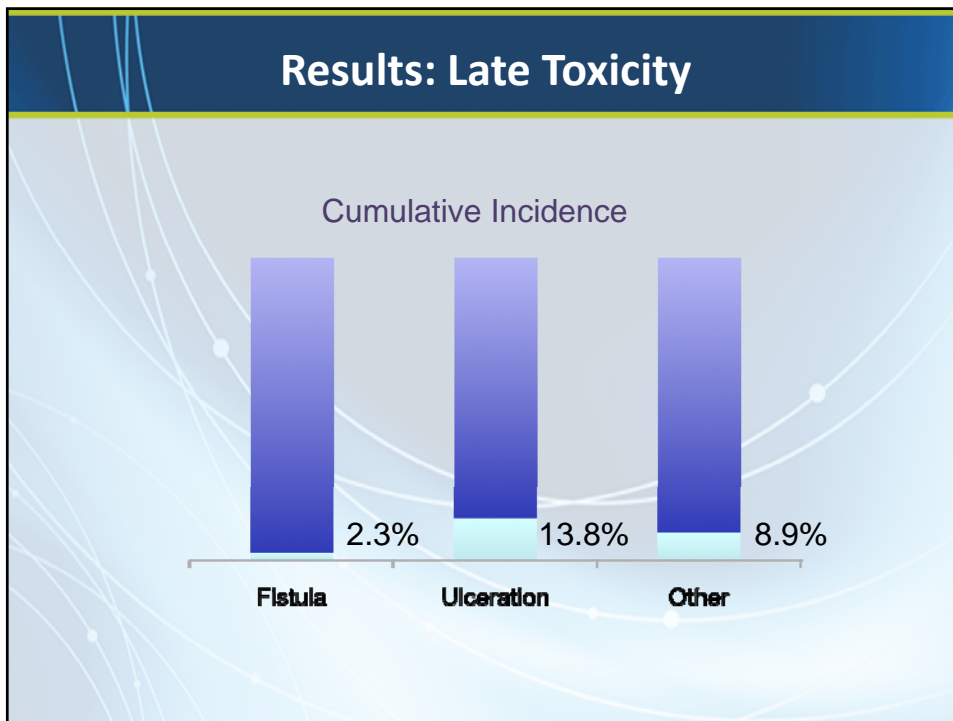
	Year	N	5 y RFS (%)	10 y OS (%)	Local recurrence only (%)
Stein	2001	1176	68	43	7
Madersbacher	2003	552	62	37	8
Hautmann	2006	841	65	45	9



Relapse



Results: Late Toxicity





Conclusion

- Largest cohort on bladder brachytherapy
- Local control at 5 years: 75%
- Comparable to cystectomy series
- Brachytherapy should be offered and discussed with patients

Systematic Review

M. Bos
AMC

Comparing

Cystectomy

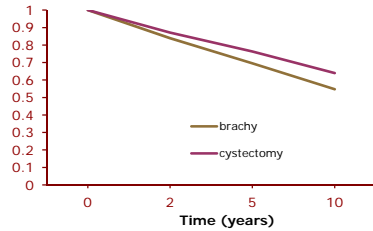
vs.

Brachytherapy

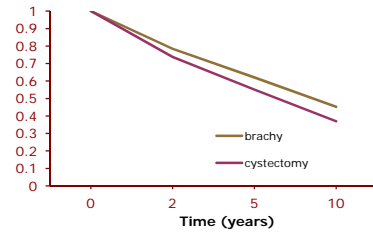
Records identified through database searching 2325		Records identified through database searching 57	
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Records screened by abstract 2322	Records excluded 1785	Records screened by abstract 57	Records excluded 25
Full-text articles assessed for eligibility 537	Full-text articles excluded with reasons 516	Full-text articles assessed for eligibility 32	Full-text articles excluded with reasons 25
Studies included in qualitative synthesis 21		Studies included in qualitative synthesis 7	
Studies included in quantitative synthesis 12		Studies included in quantitative synthesis 7	



Results

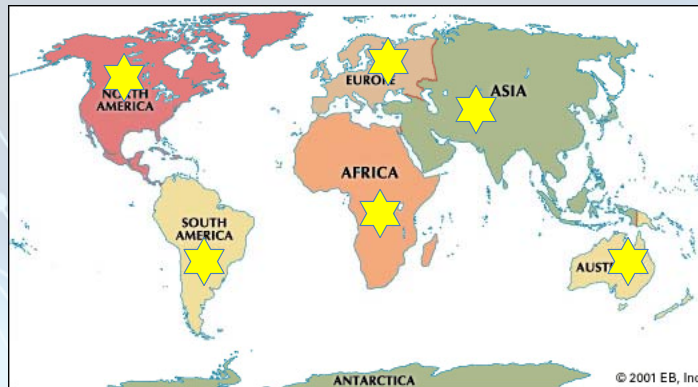


CSS 1.27 (95% CI, 1.15–1.40)



OS 0.85 (95% CI, 0.84–0.87)

What Impedes Widespread Use of Bladder Brachytherapy in the World?



- ◆ Convince Radiation Oncologists
- ◆ Training
- ◆ Facilities
- ◆ Convince Urologists