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Long-term outcomes among patients who achieve complete or near-complete responses after the induction phase of bladder preserving combined modality therapy for muscle-invasive bladder cancer: A pooled analysis of RTOG 9906 and 0233

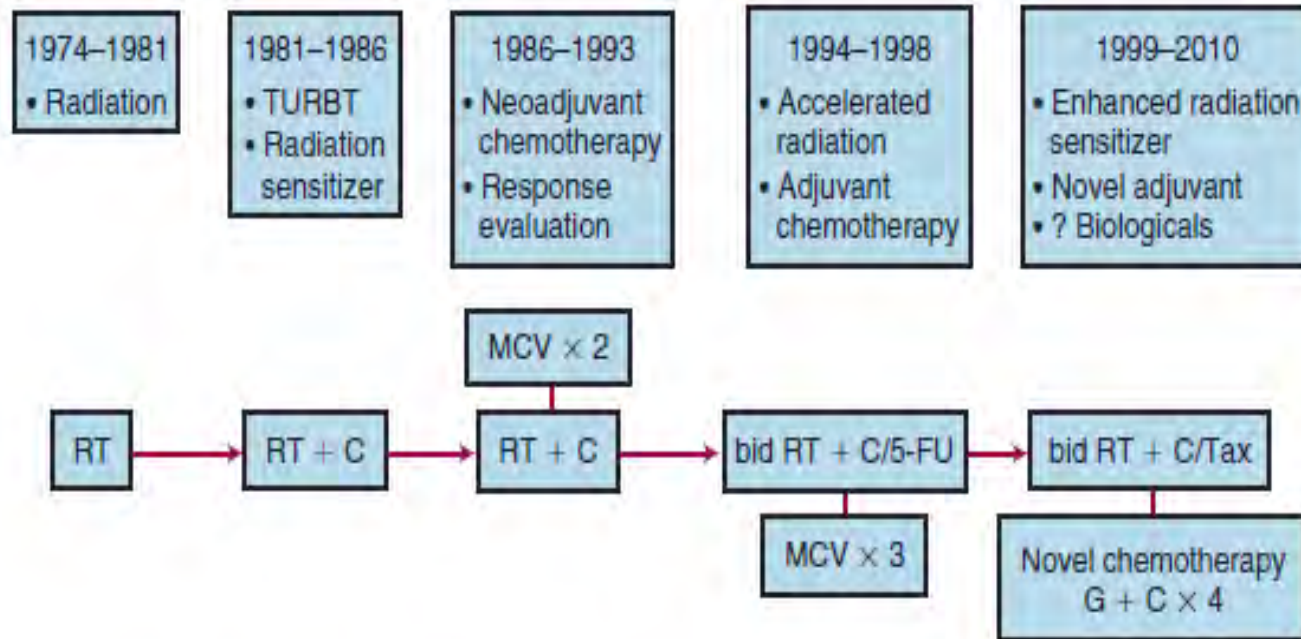
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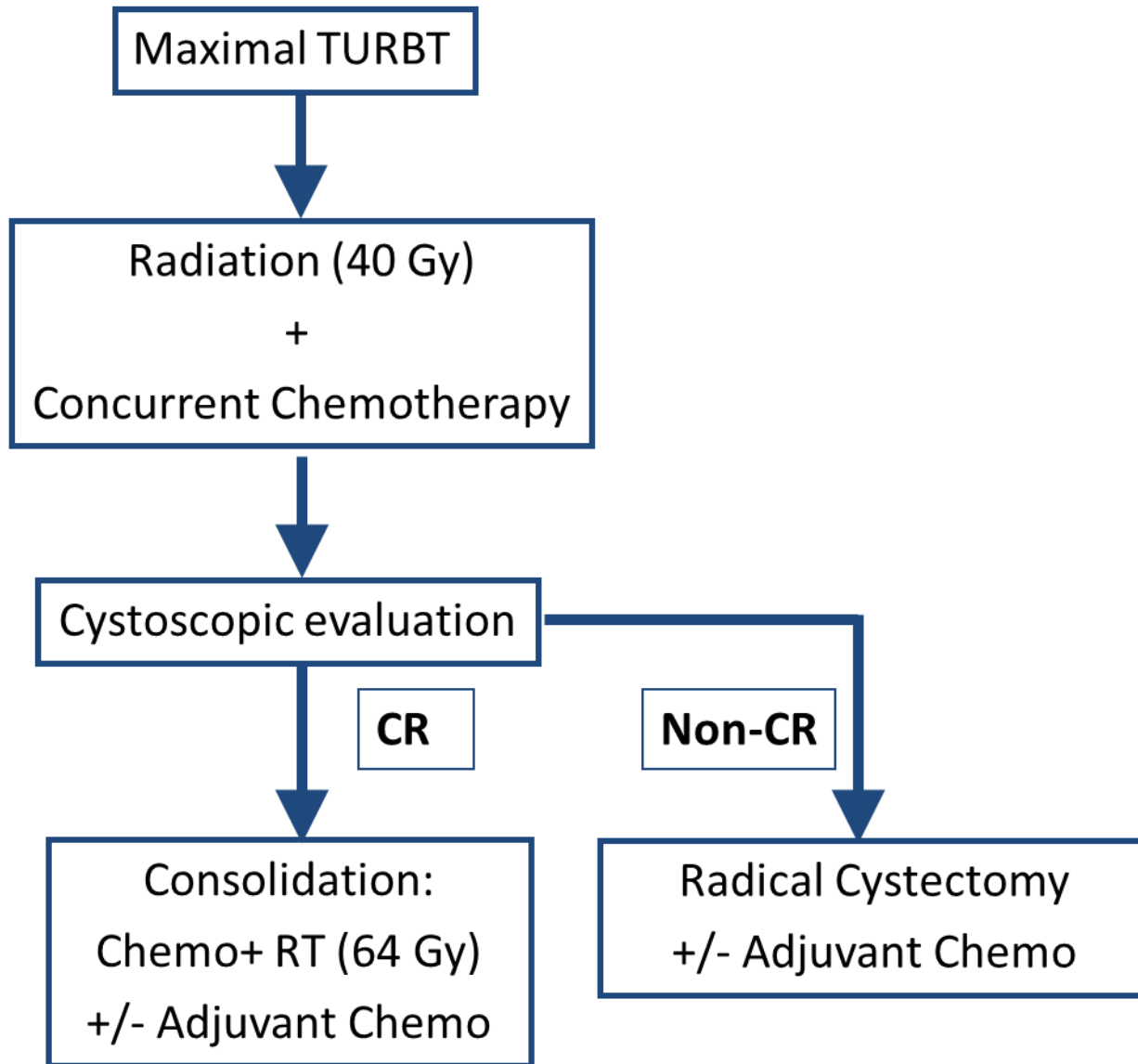
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- Disclosures: none

Bladder Conservation: Evolution of the organ-sparing therapy





Clinical Question

- Patients and physicians were not happy with the requirement of the early salvage RC for a near-complete response (Ta or Tis after induction chemo-RT)
- Last 2 Bladder RTOG trials have allowed near-CR patients to continue with bladder preservation
- This analysis was carried out to determine whether this was appropriate

RTOG 99-06 (n=80)

TURBT

Induction: Paclitaxel, Cisplatin
Bid radiation

Re-evaluation

Consolidation: Paclitaxel, Cisplatin
Bid radiation

Adjuvant: Gemcitabine,
Cisplatin x 4

Chemotherapy

Induction

Paclitaxel 50mg/m² Days 1, 8, 15
Cisplatin 20mg/m²
Days 1-2, 8-9, 15-16

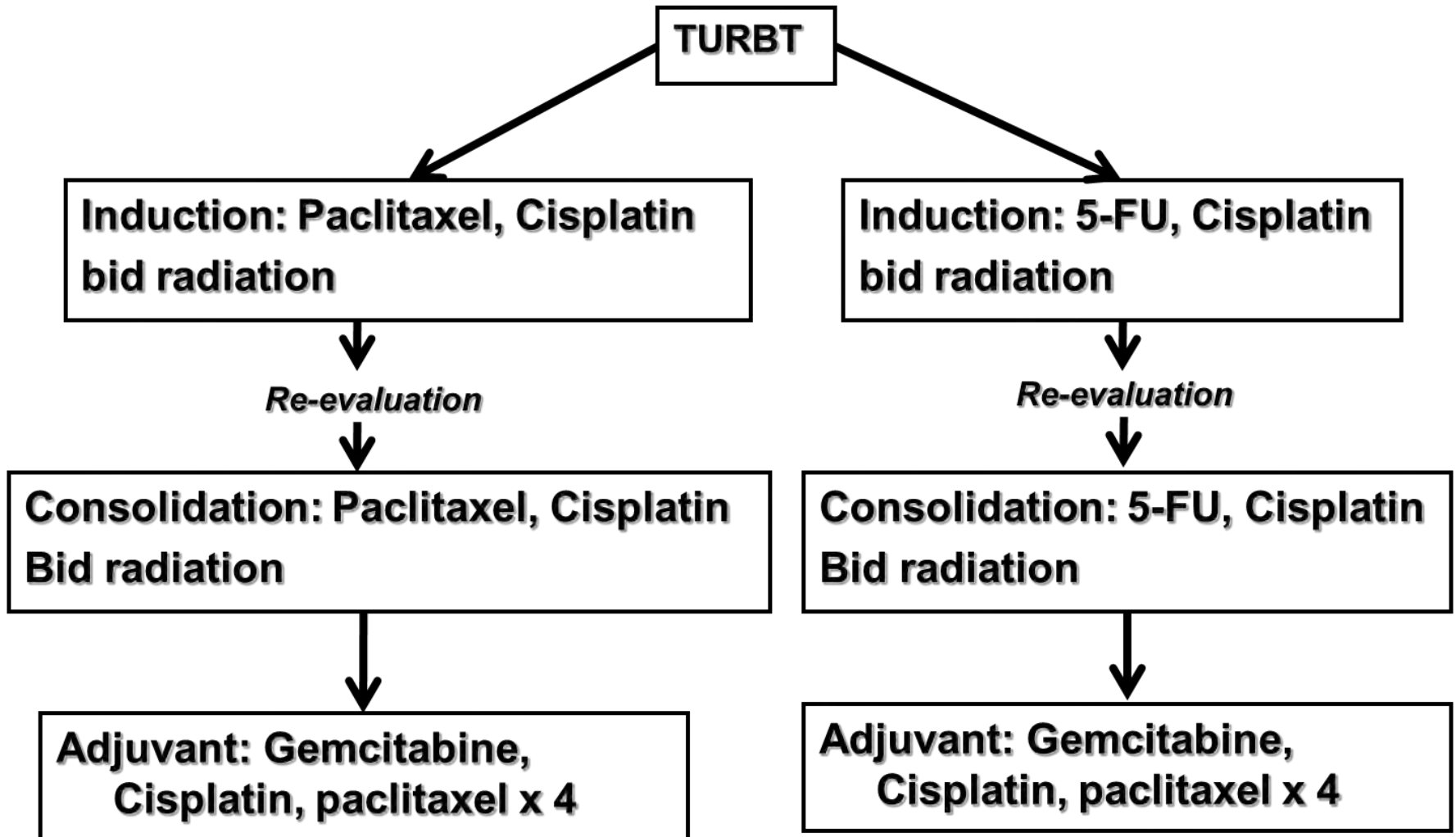
Consolidation

Paclitaxel 50mg/m² Days 1, 8
Cisplatin 20mg/m² Days 1-2, 8-9

Adjuvant

Gemcitabine 1000mg/m²
Days 1, 8, 15, q28days
Cisplatin 70mg/m² Day 1

RTOG 0233 (n=97)



RTOG 99-06/0233

Radiation details

Induction

Small pelvis	1.6Gy am	} Days 1-5
Whole bladder	1.5Gy pm	
Small pelvis	1.6Gy am	} Days 8-17
Tumor boost	<u>1.5Gy pm</u>	
	40.3Gy	

Consolidation

Small pelvis	<u>1.5Gy bid</u>	8 days
	24.0Gy	

Total Dose to Bladder Tumor: 64.3Gy

Pooled Analysis

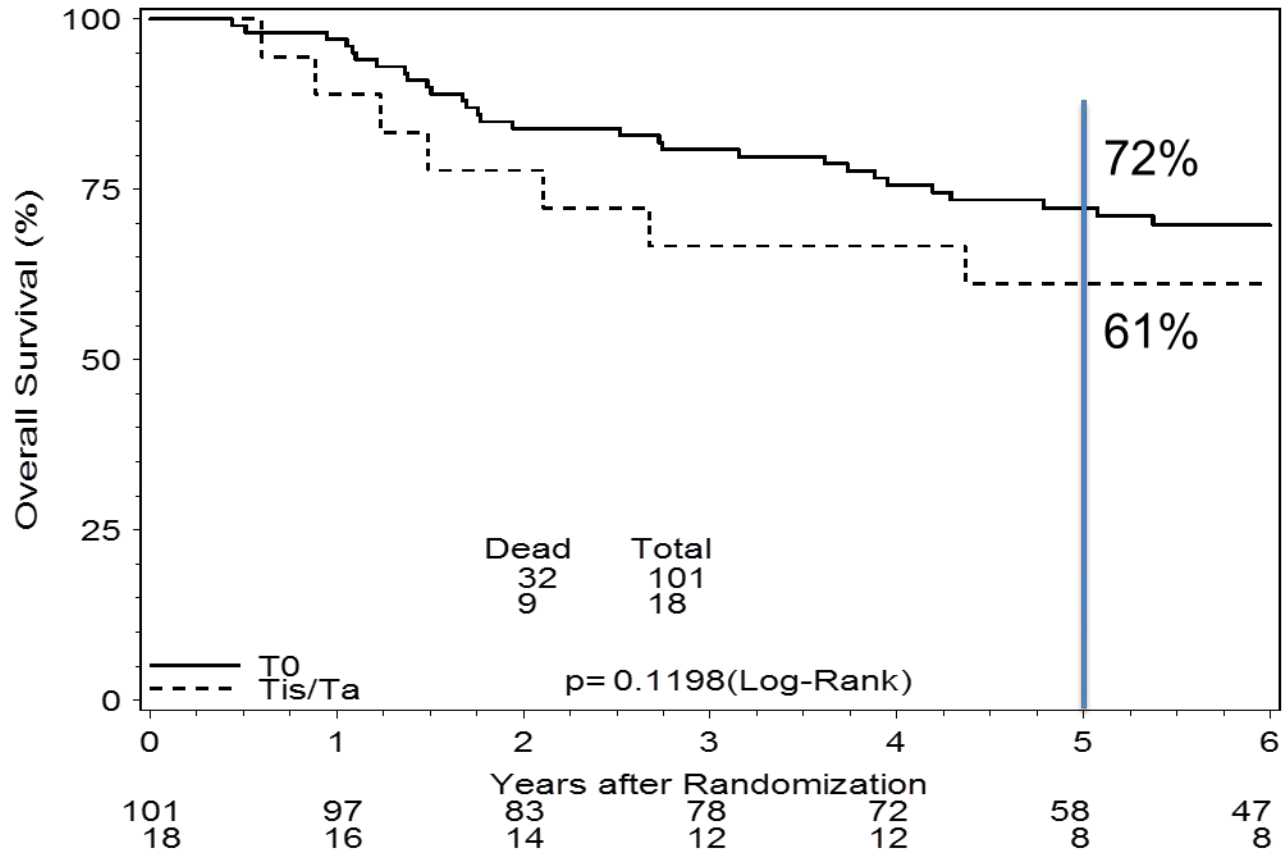
- 119 eligible patients
 - 54 on RTOG 99-06
 - 65 on RTOG 0233
- After induction chemo-RT:
 - 101 achieved T0
 - 18 achieved Ta or Tis

Characteristic	T0 (n=101)	Tis/Ta (n=18)	p-value*
Age (years)			
Median	65	70	
Min-Max	41-90	36-82	
Q1-Q3	59-71	60-78	
Gender			1.0
Male	89 (88%)	16 (89%)	
Female	12 (12%)	2 (11%)	
Zubrod Performance Score			0.29
0	96 (95%)	16 (89%)	
1	5 (5%)	2 (11%)	
Clinical T stage			1.0
cT2	94 (93%)	17 (94%)	
cT3-cT4	7 (7%)	1 (6%)	

Characteristic	T0 (n=101)	Tis/Ta (n=18)	p- value *
Maximal complete TURBT			0.59
Yes	93 (92%)	18 (100%)	
No	3 (3%)	0 (0%)	
Days between induction chemo- RT and cystoscopic evaluation			0.47
Mean	28.5	30.3	
Median	28	28	
Minimum	15	14	
Maximum	51	57	

* Fisher's exact test is used

Overall Survival



Efficacy Outcomes

Outcome at 5 years (95% CI)	T0 (n=101)	Ta/Tis (n=18)	p-value
Overall Survival	72% (63%, 81%)	61% (39%, 84%)	0.12
Disease-Specific Survival	85% (78%, 92%)	67% (44%, 89%)	0.11
Bladder Recurrence Free Survival	68% (58%, 77%)	72% (51%, 94%)	0.70

Bladder Recurrence

	T0 (n=101)	Tis/Ta (n=18)	p-value**
Any Bladder Recurrence			0.52
No	65 (64%)	13 (72%)	
Yes	36 (36%)	5 (28%)	
Recurrence	T0 (n=32*)	Tis/Ta (n=5)	0.63
Invasive	13 (41%)	1 (20%)	
Non-invasive	19 (59%)	4 (80%)	

* Excluded 4 patients whose recurrence was indeterminate for invasiveness.

** Fisher's exact test is used.

Conclusions

- There is no apparent difference in the bladder recurrence and salvage cystectomy rates between complete (T0) and near-complete (Ta or Tis) responders as judged at the time of cystoscopic evaluation after induction phase of bladder preserving combined modality therapy.
- It is appropriate to recommend that patients with Ta or Tis after induction chemo-RT continue with bladder-sparing therapy.

Acknowledgements

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