Non-muscle Invasive Bladder Cancer Recurrences in patients Managed with Trimodal Therapy: Conservative or radical treatment?

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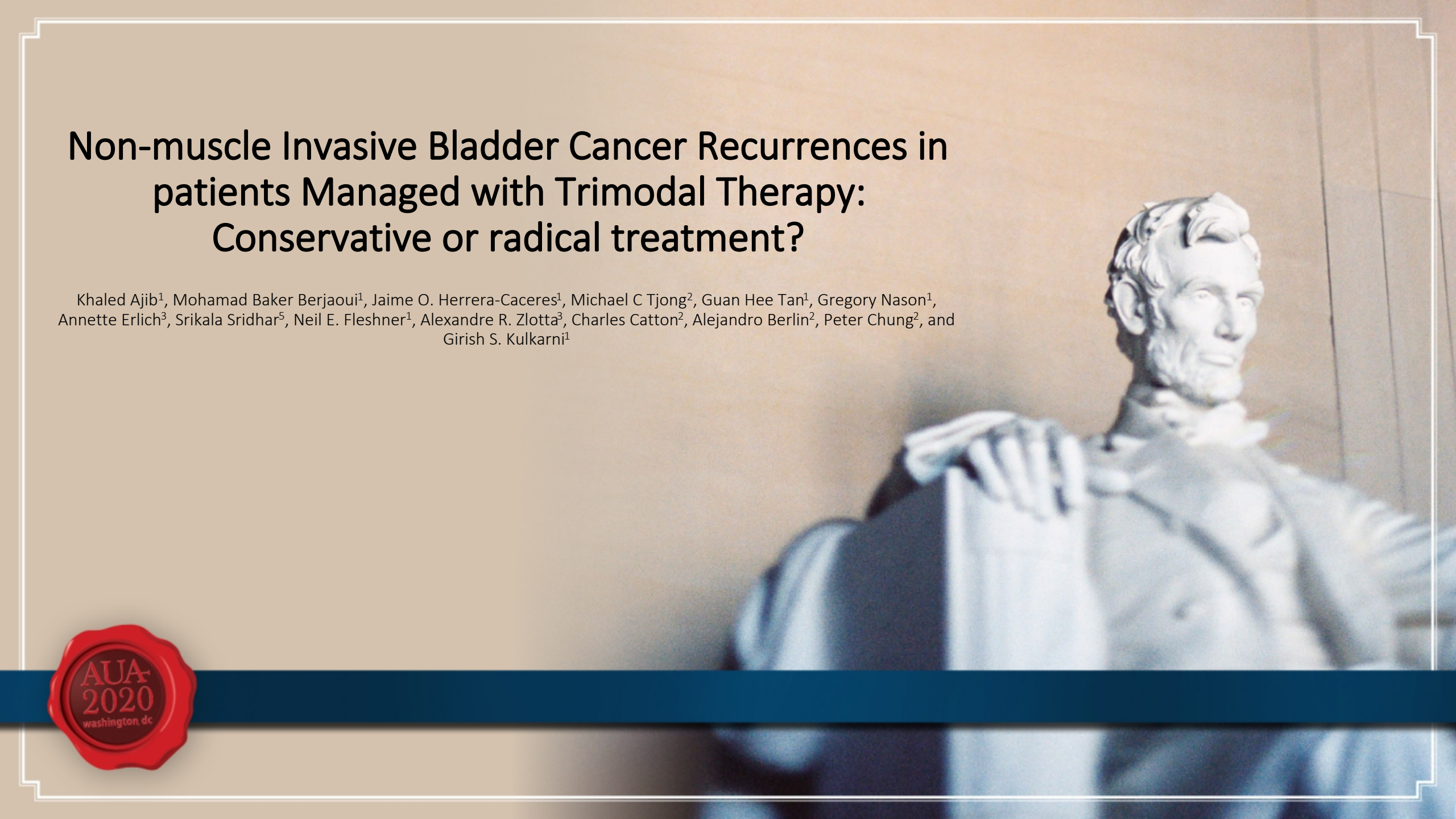
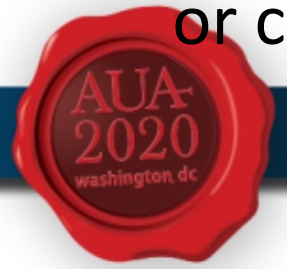


Introduction

- Bladder preservation with (TMT) has emerged as a feasible treatment alternative to RC in patients with MIBC
- With TMT the preserved bladder remains at risk for local recurrence
  - a consensus on the treatment approach in case of recurrence is yet to be established.
- Compare the evolution of NMIBC recurrences after TMT with de-novo NMIBC patients without previous TMT in order to evaluate whether NMIBC recurrences after receiving TMT are best managed with radical or conservative therapies.



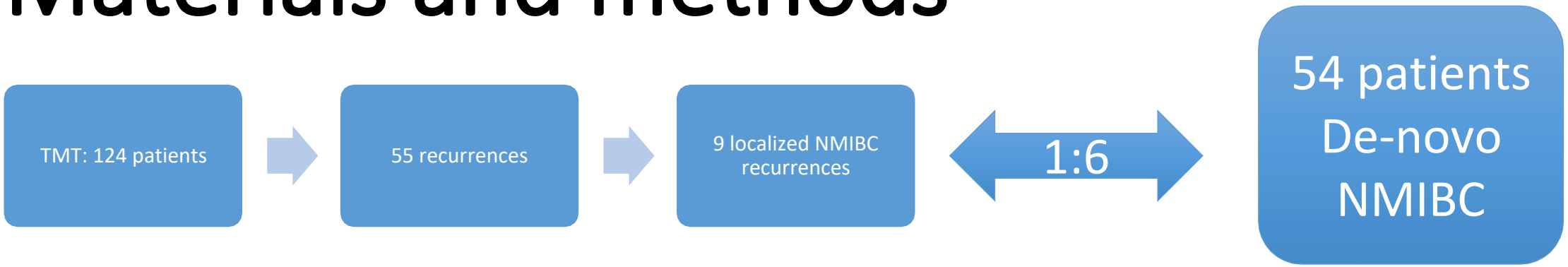
Materials and methods

- We retrospectively analyzed our bladder preservation, TMT database and identified all patients with recurrent non-muscle invasive bladder cancer between 2003-2018.
- Patients were treated with maximal TURBT followed by combination chemotherapy/radiotherapy (weekly cisplatin 40 mg/m^2 and 64-66 Gy to the bladder) with localizing Lipiodol injections.

Materials and methods

- We compared those patients to a cohort of matched controls with primary de-novo NMIBC.
- Those patients were derived from our local NMIBC database and matching was based on clinical stage and grade in a 6:1 manner (controls:cases).
- Recurrences in the TMT group were managed according to the standard therapy for NMIBC.
- A descriptive analysis was performed between patients undergoing TMT with NMIBC recurrence and patients initially diagnosed with de novo NMIBC.
- Overall survival, recurrence-free, and cystectomy-free survival were calculated for each group and analyzed using the Kaplan-Meier method.

Materials and methods



- During the follow-up period, the total number of recurrences was 24% (13/54) in the non-TMT group compared to 11.1% (1/9) in the TMT group (p=0.32). No patient from the TMT group required a cystectomy as compared to 16.7% (9/54) in the non-TMT group (p=0.36). Overall survival was 77.8% (7/9) in TMT group compared to 100% in non-TMT group (p<0.001), knowing that the Disease-Specific Survival in the TMT group is 100%.

Results

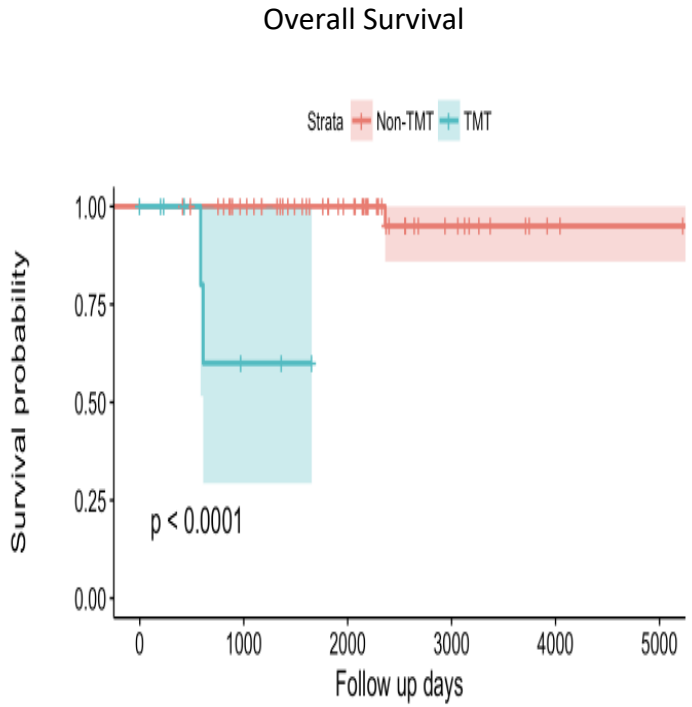
	Group 1: TMT (n=9)	Group 2: non-TMT (n=54)
Age (Median)	77.0 (54.0 – 84.0)	66.0 (23.0 – 88.0)
Sex (%)		
Female	3 (33.3)	11 (20.4)
Male	6 (66.7)	43 (79.6)
Smoking (%)		
Current	2 (22.2)	9 (16.6)
No	1 (11.1)	15 (27.8)
Discontinued (>12 months)	6 (66.7)	30 (55.6)
ECOG (%)		
0	2 (22.2)	41 (75.9)
1	3 (33.3)	12 (22.2)
2	3 (33.3)	0 (0)
3	1 11.2)	1 (1.9)
Grade no (%)		
G1	3 (33.3)	13 (24.1)
G2	0 (0)	1 (1.8)
G3	6 (66.6)	40 (74.1)
cT stage (%)		
CIS	3 (33.3)	18 (33.3)
Ta	3 (33.3)	18 (33.3)
T1	3 (33.3)	18 (33.3)

- Median age of the TMT group was 72.4 years versus 66 years for the non-TMT group.
- Median follow-up for both groups was 3.8 years.
- The 9 recurrences within the TMT group had the following clinical staging: cTa (3 patients), cT1 (3 patient), and CIS (3 patients).

Results

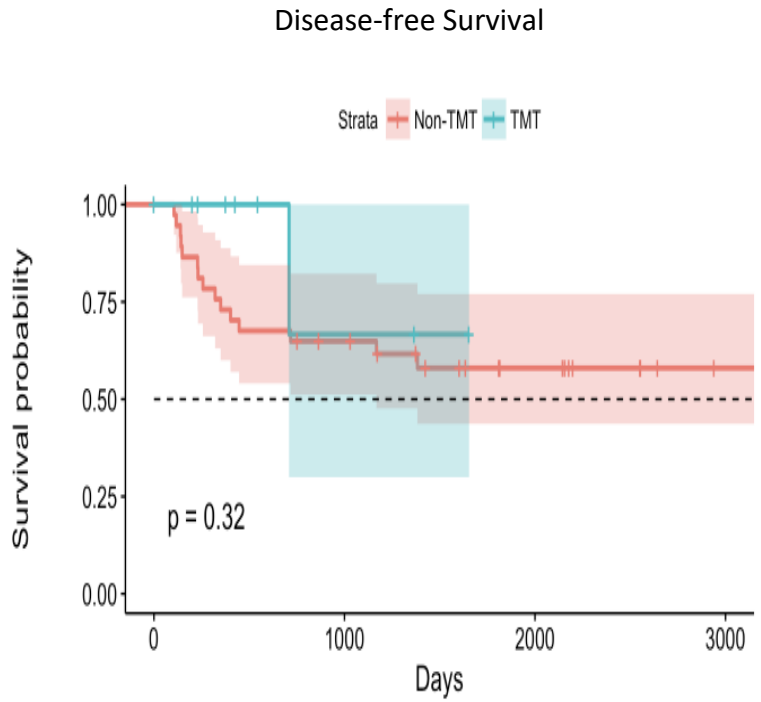
	Group 1: TMT	Group 2: Non-TMT	P-value
Overall Recurrence	1 (11.1%)	13 (24.1%)	0.32
Number of Cystectomies	0 (0)	9 (16.7%)	0.36

Results



- Overall survival was 77.8% (7/9) in TMT group compared to 100% in non-TMT group ($p<0.001$)

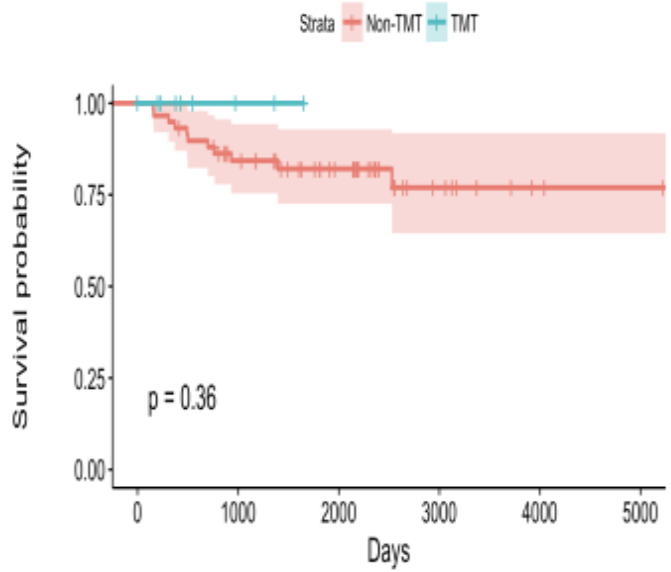
Results



- Disease-Specific Survival in the TMT group is 100%.

Results

Cystectomy-free Survival



Discussion

- This is the first study to evaluate whether recurrences of non-muscle invasive bladder cancer after receiving TMT are best managed with radical or conservative therapies.
- Overall survival was 77.8% (7/9) in TMT group compared to 100% in non-TMT group ($p<0.001$); however, the Disease-Specific Survival in the TMT group was 100%.
- Sanchez et al. reported that overall survival was similar between TMT patients who had NMIBC recurrence compared to no recurrence.[1]

[1]Sanchez, Alejandro, et al. "Incidence, Clinicopathological Risk Factors, Management and Outcomes of Nonmuscle Invasive Recurrence after Complete Response to Trimodality Therapy for Muscle Invasive Bladder Cancer." *Journal of Urology*, vol. 199, no. 2, 2018, pp. 407–415., doi:10.1016/j.juro.2017.08.106.

Conclusion

- We have demonstrated that NMIBC recurrences post TMT can be successfully managed with endoscopic and adjuvant intravesical therapies, with outcomes similar to de novo NMIBC patients of the same stage and grade.
- These results provide guidance for patients and providers who elect TMT for localized MIBC.