Survival following Salvage Surgery after Failed Radiotherapy for Penile Cancer. Long Term follow- up



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OBJECTIVE

We aim to assess survival outcome of Salvage Surgery (SS) following Radiation therapy failure in Penile Cancer (PC) using the Surveillance, Epidemiology, and End Results (SEER) database.

METHODS

We used The SEER database to identify patients received SS on the penis following RT. Overall survival (OS) and cancer specific survival (CSS) were calculated from the date of SS to the date of the last follow up or the date of death.

RESULTS

Between 1976- 2013, 17 patients were identified. Median age was 65 years (range 47-91). The mean follow-up was 51 months (range 3-213). Survival data showed, 3 (17.7%) patients remain alive, 14 (82.3%) were dead. Of these dead patients, 8/14 (47.1%) the cause of death was attributable to PC and in 6/14 (35.3%) death was attributable to other causes. The actuarial 1, 3, 5 and 10-year overall survival rates were 68.8%, 35.7%, 35.7% and 10.7% respectively. The 1, 3, 5 and 10-year cancer specific survival rate was 72.7%, 48.4%, 48.4%, 36.3% respectively.

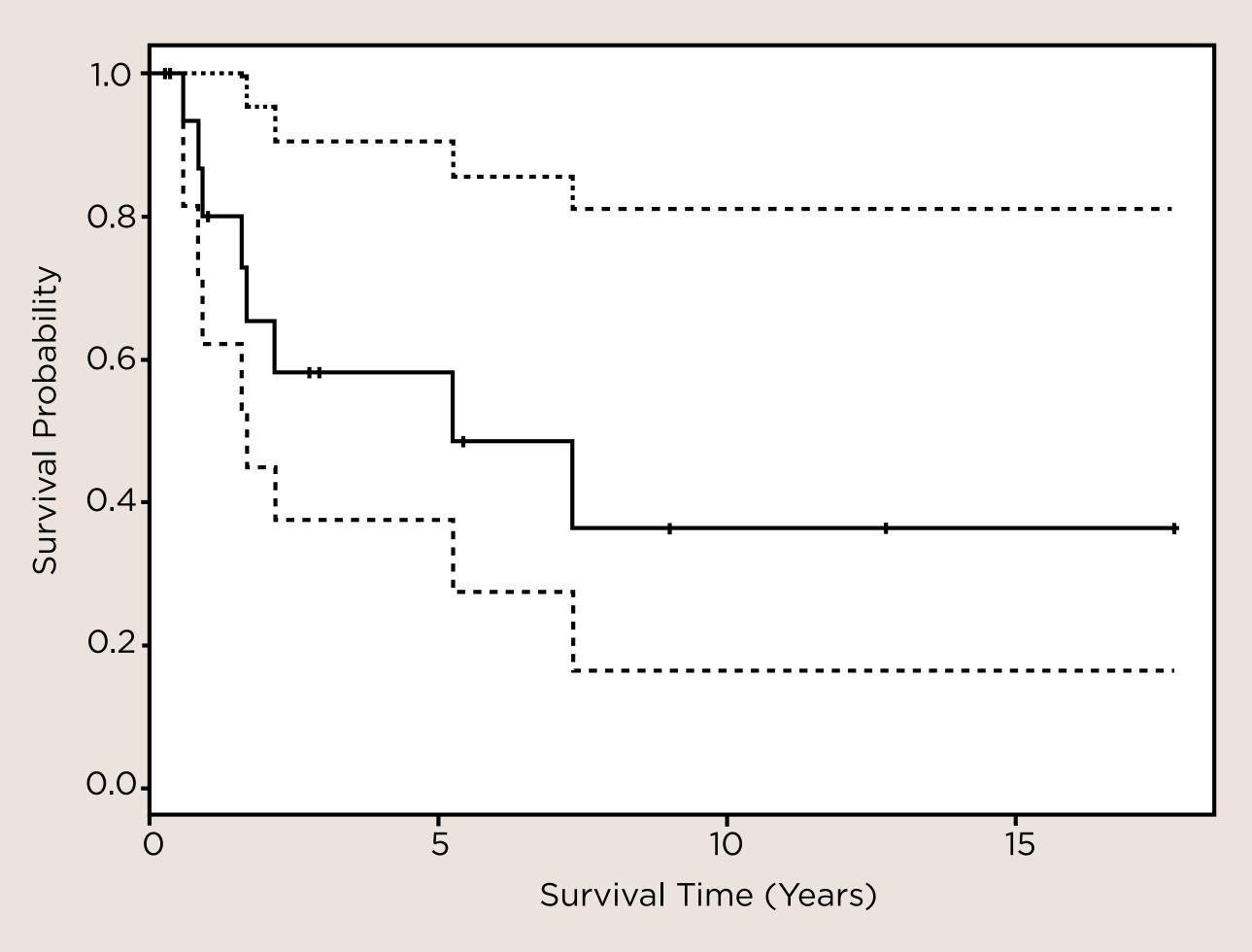
CONCLUSIONS

Our results demonstrate, the overall survival of PC patients underwent SS was poor with nearly one third of patients dying within the 1st year and only one third surviving up to 3 years from the SS.

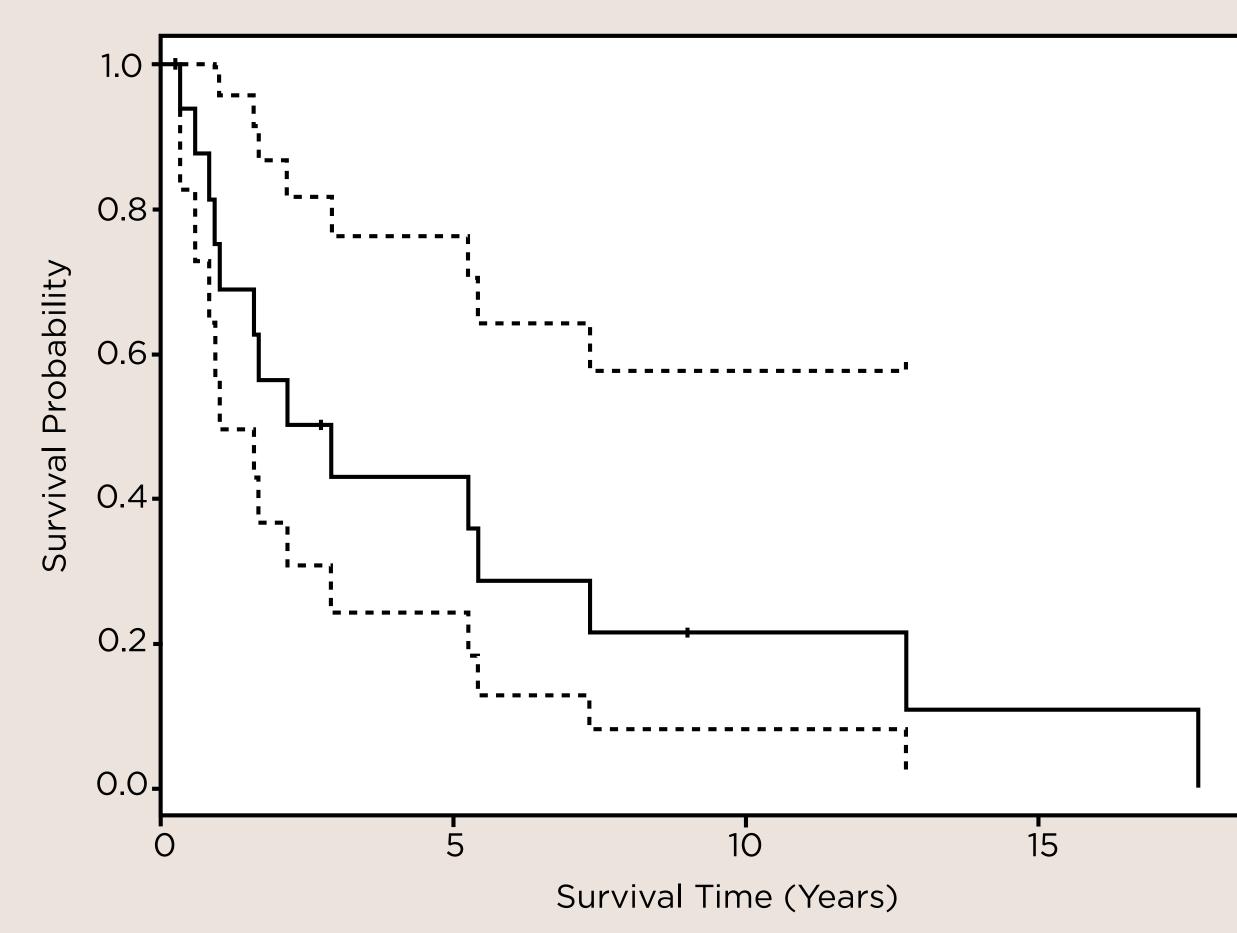
Table 1- Patient details

N	Age	Race	Histology	Stage	Grade	Type of radiation	LN dissection	Fol- low-up	Alive/ Dead	Cause of death
1	65	White	SCC	R	M	EBRT	N/P	11	Dead	PC
2	79	White	SCC	L	W	EBRT	N/P	65	Dead	CVD
3	91	White	SCC	N/A	N/A	EBRT	N/P	88	Dead	Other Neo- plasm
4	50	White	SCC	L	M	EBRT	N/P	10	Dead	PC
5	47	Black	SCC	R	Μ	EBRT	LN -	108	Alive	
6	75	White	SCC	R	Μ	EBRT	N/P	12	Dead	Diabetes
7	47	White	SCC	L	Р	EBRT	N/P	20	Dead	PC
8	76	White	SCC	L	N/A	EBRT	N/P	63	Dead	Pulmonary Disease
9	83	White	SCC	N/A	W	EBRT	N/P	35	Dead	CVD
10	65	White	SCC	L	N/A	EBRT	N/P	4	Dead	Other Causes
11	68	White	SCC	R	Р	EBRT	N/P	19	Dead	PC
12	55	Asian or Pl	SCC	D	Р	EBRT	LN +	153	Dead	Other Causes
13	59	White	SCC	N/A	M	EBRT+ BT	N/P	213	Dead	Heart Disease
14	51	Black	SCC	D	N/A	EBRT	N/P	26	Dead	PC
15	49	White	Ade- no-carci-	R	M	EBRT	N/P	3	Alive	
16	72	White	SCC	L	N/A	EBRT	N/P	33	Alive	
17	64	White	SCC	R	М	EBRT	LN+	7	Dead	PC

BT: Brachytherapy, **CVS**: Cerebrovascular Diseases, **D**: Distant metastasis, **EBRT**: External Beam Radiation Therapy, **L**: localized, **LN**: Lymph node, **M**: Moderately differentiated, **N/A**: Not Available, **N/P**: Not Performed, **N**: Number, **PC**: Penile Cancer, **PI**: Pacific Islander, **P**: Poorly differentiated, **R**: Regional metastasis, **W**: Well differentiated.



Estimated Cancer Specific Survival (Kaplan-Meier)



Estimated Overall Survival (Kaplan-Meier)

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