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ROYAL MAXIM PALACE KEMPINSKI, CAIRO

Eyelid Sebaceous Gland Carcinoma: An Assessment of the American Joint Committee of Cancer (AJCC) 8th vs. 7th Edition

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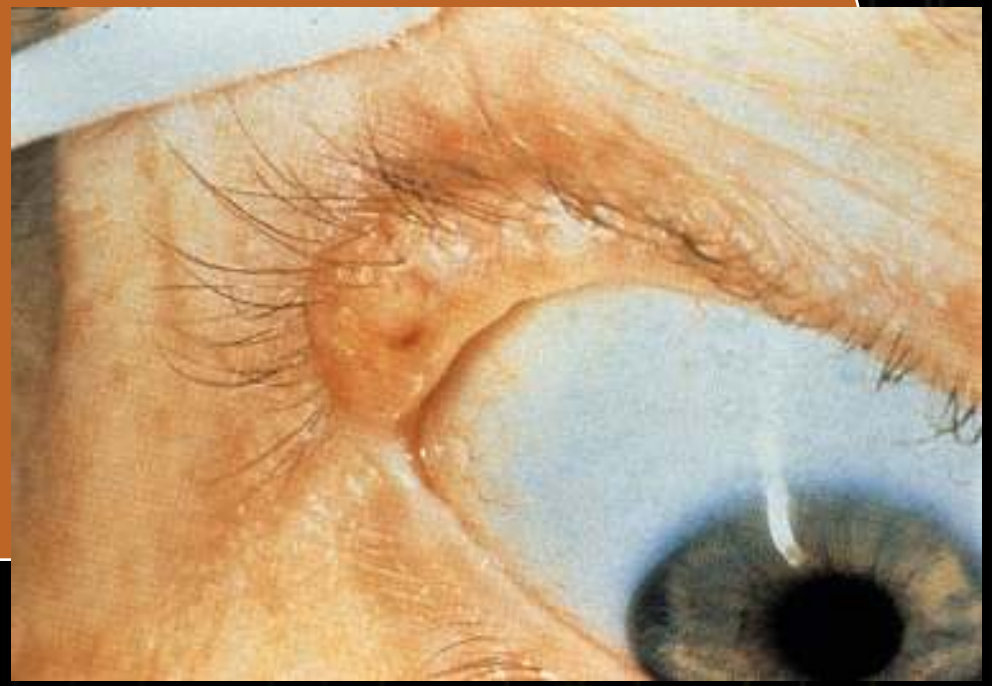
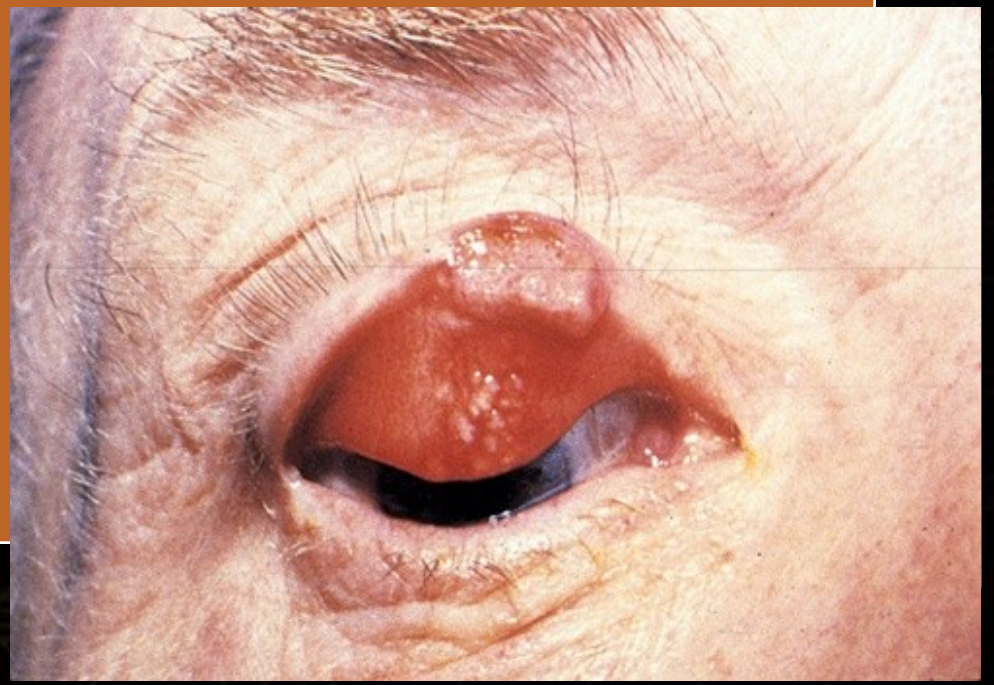
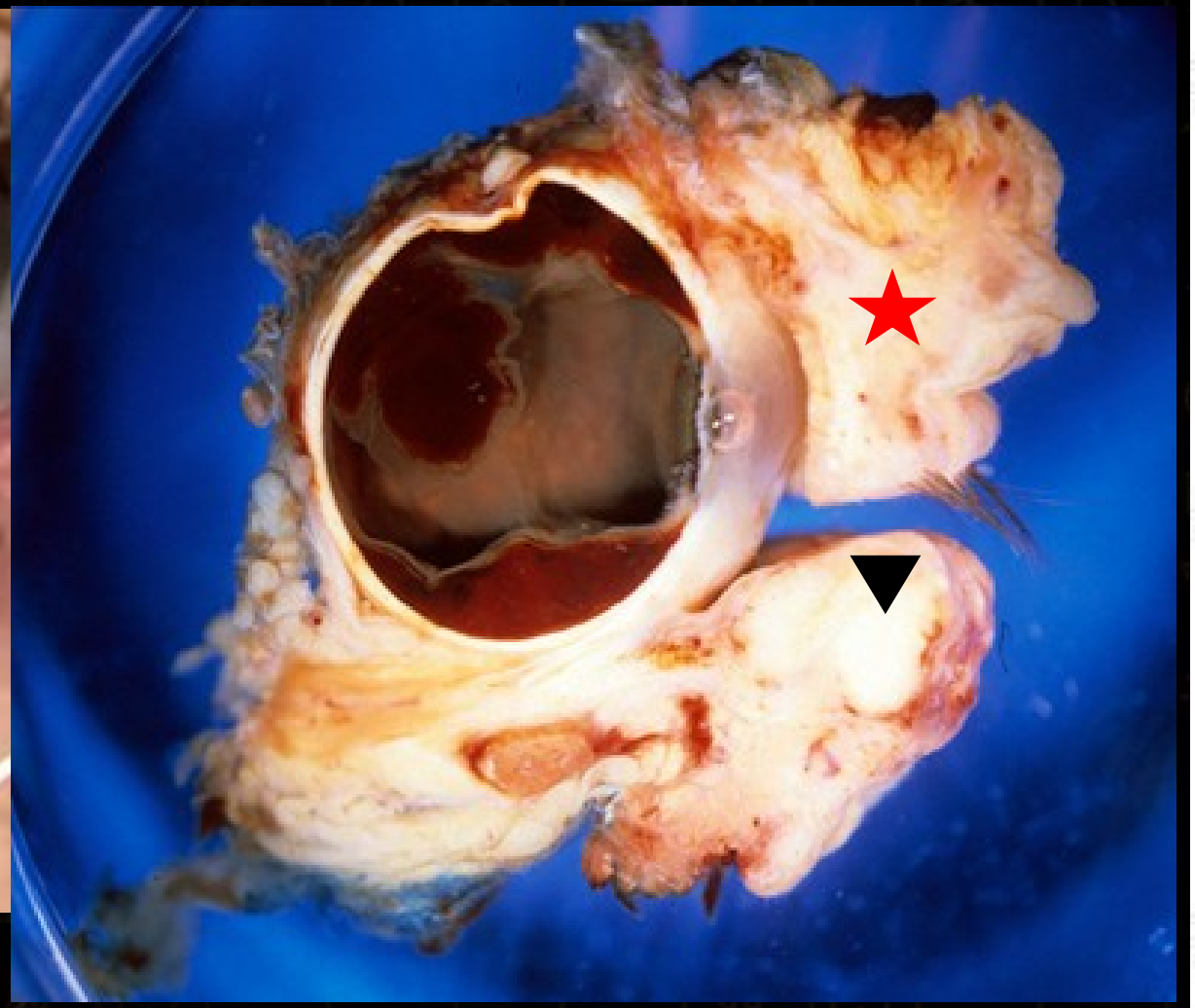
ntroduction:





Introduction: *nightmare of the ophthalmic pathologist*



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Introduction: *demand of ophthalmologists*

PROGNOSIS

- The American Joint Committee of Cancer (AJCC) utilizes primary tumor size, invasion, lymph node LN, and metastasis (TNM) for cancer staging of the eyelid cancers.[4]
- The (T) category size in the 7th edition of AJCC proved to be a predictive tool for nodal metastasis in SGC of the eyelid in many studies. [5-8]

Methodology

T category of eyelid carcinoma, 7th AJCC TNM staging system		
T1	≤5 mm; not invading the tarsal plate or eyelid margin	
T2	T2a	>5 mm to ≤ 10 mm; or, any tumor that invades the tarsal plate or eyelid margin
	T2b	>10 mm to ≤ 20 mm; or, involves full thickness eyelid
T3	T3a	> 20 mm; or, any tumor that invades adjacent ocular or orbital structures; any T with perineural tumor invasion
	T3b	Complete tumor resection requires enucleation, exenteration, or bone resection
T4	Tumor is not resectable because of extensive invasion of ocular, orbital, or craniofacial structures, or brain	

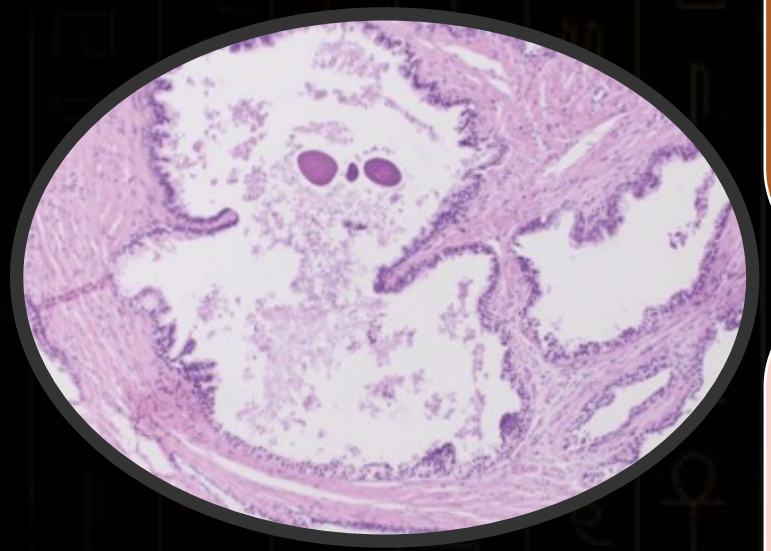
T category of eyelid carcinoma, 8th AJCC TNM staging system			
T1	≤ 10 mm	a	not invading tarsal plate or eyelid margin
		b	invades the tarsal plate or eyelid margin
		c	involves full thickness eyelid
T2	>10 to ≤ 20 mm	a	not invading tarsal plate or eyelid margin
		b	invades the tarsal plate or eyelid margin
		c	involves full thickness eyelid
T3	> 20 to ≤ 30 mm	a	not invading tarsal plate or eyelid margin
		b	invades the tarsal plate or eyelid margin
		c	involves full thickness eyelid
T4	> 30 mm	T4a	Invades adjacent ocular or orbital structures
		T4b	-Invades Lacrimal drainage system or brain -Erodes orbital bones -extends to the sinuses

Introduction:

There was a debate about whether a specific size of a tumor at presentation could be predictive of the extent of disease, recurrence, and outcome.[9]

Choi 2014 found that the **clinically assessed largest tumor dimension alone was not an effective predictive factor,** but the extent of pathological invasion played a major role in the prognosis.[6]

Aim



To determine the association of (T) category with *local recurrence, nodal metastasis, distant metastasis, and mortality.*

The current study is the first to validate the AJCC cancer staging system in patients from the Middle East.

Methodology

A multi-center retrospective cohort clinicopathological study

Sixty patients diagnosed with eyelid SGC were included

We excluded patients who had eyelid SGC as secondary involvement and those with insufficient data for staging

Tumor classification and characteristics were identified based on the 7th and 8th editions of the AJCC (TNM) staging system.

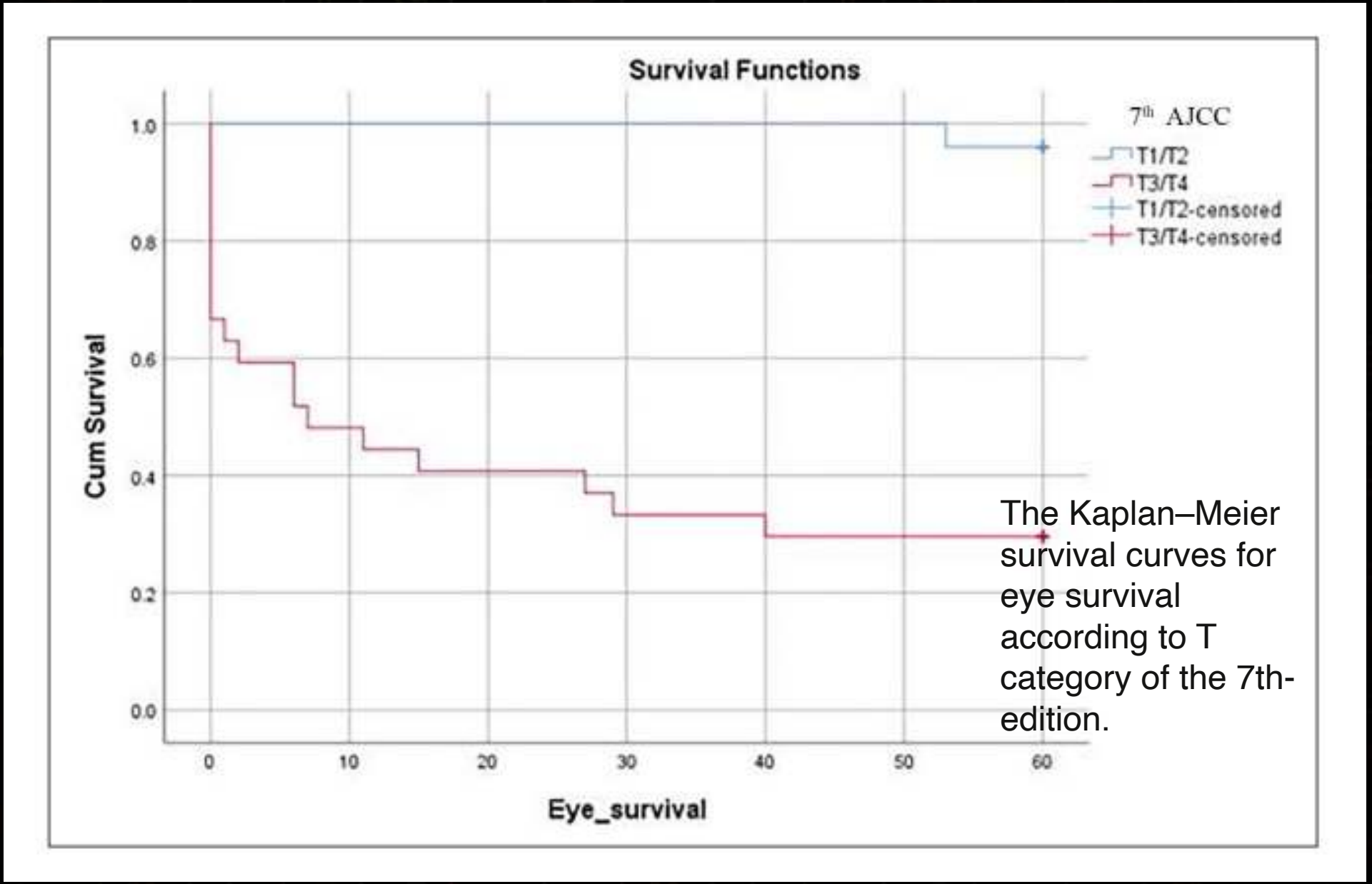
Results

Demographics and clinical data		No	%
Gender	Male	29	48.3
	Female	31	51.7
Nationality	Saudi	48	80
	Non- Saudi	12	20
Location	Upper lid	34	56.7
	Lower lid	20	3.3
	Both lids	5	8.3
	Medial canthus	1	1.7
Clinical pesentation (Lesion)	Mass	38	63.3
	Ulcerative lesion	14	23.3
	Diffuse lid thickening	4	6.7
	Papillomata	3	5
	Flat crusty lesion	1	1.7
Provisional diagnosis	Sebaceous carcinoma	18	30
	Basal cell carcinoma	12	20
	Squamous cell carcinoma	6	10
	Malignancy not specified	11	18.3
	Chalazion / other inflammation	13	21.6
Histopathologic pattern	Lobular	24	40.0
	mixed	17	28.3
	papillary	9	15.0
	Comedocarcinoma	7	11.7
	Not specific	3	5.0
Differentiation	Well	16	26.7
	Moderate	20	33.3
	poor	24	40.0
Intraepithelial neoplasia	No	16	26.7
	Yes	44	73.3
Perineural invasion	Negative	55	91.7
	Positive	5	8.3
Initial Treatment	Local excision	32	53.3
	Exenteration	22	36.7
	chemo/radiotherapy	6	10.0
Adjuvant Treatment	No	50	83.3
	Yes	10	16.7

Results: AJCC classification *(eye survival)*

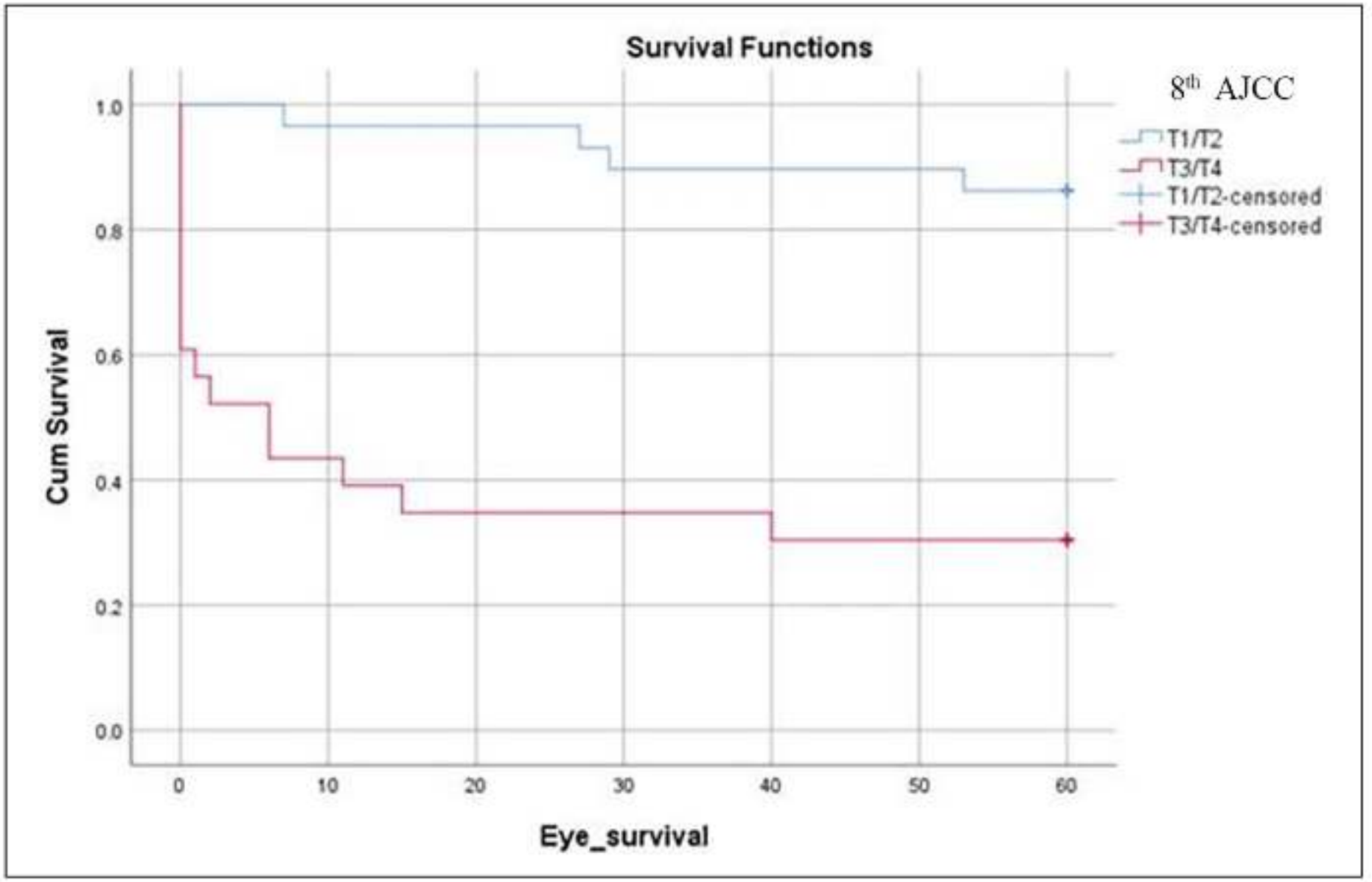
The 8th AJCC (T) categorization was better in correlating eye survival using the Kaplan-Meier curve between T1/T2 and T3/T4 categories (p= *0.022**) rather than 7th edition (p= *0.058*).

Results: AJCC classification



The Kaplan–Meier survival curves for eye survival according to T category of the 7th-edition.

Results: AJCC classification



Discussion: validation of 8th AJCC classification (LN)

Nodal metastasis : In our study, clinical stage at presentation of T3a or worse was associated with higher risk of nodal metastasis (p=*0.037**)

Sa et al (*Br J Ophthalmol* 2019; 103(7): 980–984.): There were significant correlations between: T2c or worse and LN metastasis (*p=0.04**)

Results: 8th AJCC classification *(Tr differentiation)*

T3/T4 categories were significantly associated with poor tumor differentiation (*p =0.001**) and with the histopathologic pattern (*p=0.024**)

T3/T4 categories were NOT significantly associated with the pagetoid spread (*p=0.081*).

Discussion: validation of 8th AJCC classification *(Distant Mets)*

Distant metastasis: In our study, due to the limited number of distant metastasis (two patients only), validation tests were not meaningful

Sa et al (*Br J Ophthalmol* 2019; 103(7): 980–984.): There were significant correlations between: T2c or worse and distant metastasis (*p=0.01**)

Discussion: validation of 8th AJCC classification (recurrence)

Local recurrence: In our study 29 % of the patients in the T3/T4 group had recurrence, compared to 17.2% in the T1/T2 group, was NOT statistically significant (*P=0.281*)

Sa et al (*Br J Ophthalmol* 2019; 103(7): 980–984.): significant correlations between: T3b or worse category and local recurrence (*p=0.01**) and death from disease (*p=0.01**)

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Discussion: validation of 8th AJCC classification *(Survival)*

Mortality: The 5-year disease-specific survival (DSS) rate was 93.3%. The survival distributions for (T1/T2 vs T3/T4) were Not statistically significantly different (*P=0.059*)

Hsia et al (*Eye (Lond)* 2019; 33(6): 887–895): Tumors of category T3b or worse in the 8th edition had more tumor-related death

Conclusions

The 8th edition AJCC classification seems to correlate better with the prognosis in general, with a significant greater risk of LN metastasis in tumors of stage T3b or worse

Histologic grading system might also be useful in the prognosis assessment as well as the histological pattern identification.

Our study has added to the validation of the 8th-edition AJCC TNM classification for eyelid SGC compared with the 7th-edition

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Thank you