

Taste alterations and nutritional status in patients undergoing chemotherapy with tyrosine-kinase inhibitors

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Background and aims

Among Adverse Effects (AEs) associated with oncological therapies, taste alterations (TAs) received little attention, even though they have serious impact on nutritional status and quality of life (QoL) and affect 75% of patients. Cabozantinib, Erdafitinib and Pazopanib (tyrosine-kinase inhibitors - TKI) have been associated with TAs and impact on Quality of Life (QoL).

Methods

A cross-sectional study was performed in patients with advanced renal cell carcinoma (RCC) and metastatic urothelial carcinoma (mUC), receiving treatment with TKI for at least 3 months. During a single evaluation, weight, weight loss, MUAC and CALF were measured; Chemotherapy-induced Taste Alteration Scale (CiTAS) and EORTC QLQ-C30 questionnaires were collected and scales calculated.

Results

From 03/2022 to 11/2022, 19 patients were recruited. For descriptive characteristics see Table. Mean BMI is 24.7; 60% lost weight in previous 6 months (mean weight loss 8.5%), mean MUAC is 29.0 cm; mean adjusted CALF is 34.6 cm (65% having at least -1 SD). CiTAS mean scales (range 1-5) are: Decline in basic taste 1.7, Discomfort 1.8, Phantogeusia and Parageusia 1.6, General Taste Alterations 1.7; questions with highest scores were "Having a reduced appetite" and "Have difficulty tasting saltiness". Global Health Status score from EORTC QLQ-C30 is 63/100; all functional scales range from 74/100 to 87/100; highest symptom scales are Fatigue (36/100), diarrhea (28/100) and appetite loss (26/100).

Conclusion

AEs management and early nutrition support should help to mitigate the impact of AEs and TAs and allow patients to maintain treatment, to improve QoL and prevent patients from developing malnutrition.

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Descriptive characteristics of patients receiving TKI chemotherapy (n. 19)

	Value	SD	%
Male	17		89%
Age	63,8	7,9	
Tumor Type			
carcinoma a cellule renali (RCC)	8		42%
metastatic urothelial carcinoma (mUC)	10		53%
carcinoma vescicale (TCC)	1		5%
Anthropometry			
BMI	24,7	2,9	
Weight loss in last 6 months			
- No	8		
- Yes	11		
If yes, %	8,5%		
MUAC (cm)	29,0	2,2	
Adjusted CALF (cm)	34,6	2,4	
- CALF Normal	7		37%
- CALF -1SD	9		47%
- CALF -2SD	3		16%
CiTAS			
Decline in Basic Taste (1-5)	1,7	1,0	
Discomfort (1-5)	1,8	0,9	
Phantogeusia and Parageusia (1-5)	1,6	0,8	
General Taste Alterations (1-5)	1,7	0,9	
EORTC QLQ-C30			
Global Health Status	63	16,7	
Physical functioning	78	21,6	
Role functioning	74	25,6	
Emotional functioning	79	16,8	
Cognitive functioning	87	17,2	
Social functioning	77	21,7	
Fatigue	36	27,1	
Diarrhea	28	29,9	
Appetite loss	26	37,8	

