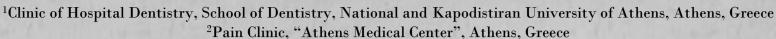


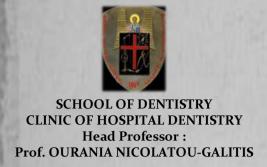
ORAL MUCOSITIS-RELATED NEUROPATHIC PAIN IN HEAD AND NECK CANCER PATIENTS RECEIVING RADIOTHERAPY OR CHEMORADIOTHERAPY

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INTRODUCTION:

Painful oral mucositis (OM) is a debilitating complication in Head and Neck Cancer (HNC) patients receiving RadioTherapy (RT) /ChemoRadioTherapy. Therapy-induced pain can be nociceptive and / or neuropathic. Neuropathic pain (NP) in HNC patients often remains underdiagnosed and undertreated. This study's purpose was to identify the OM-induced NP.

PATIENTS & METHODS:

ORAL PAIN AND XEROSTOMIA EVALUATION: Numeric Rating Scale (NRS); Scores: 0-10

1 - 4: mild, 5-7: moderate, 8-10: severe.

NEUROPATHIC PAIN EVALUATION: Douleur Neuropathique 4 questionnaire: DN4; Cut-off value: total score of 4/10.

ORAL MUCOSITIS GRADING: EORTC / RTOG criteria; Grades: I - IV I: mild, II: moderate, III-IV: severe

Patients completed a DN4 as soon as they reported moderate or severe pain.

RESULTS:

Variable	N (%)	Mean (SD)
Age (years)		63.54 (13.96)
Gender	1000	A THE STATE OF THE STATE OF
Male	20 (76.9)	
Female	6 (23.1)	
Cancer Stage		
II	2 (7.7)	
III	7 (26.9)	
IV	9 (34.6)	
Recurrence	2 (7.7)	
missing	6 (23.1)	
Cancer Site		The Mark State of the State of
Oral / Oropharyngeal	16 (61.5)	
Nasal / Nasopharyngeal	3 (11.5)	
Parotid	3 (11.5)	
Unknown Primary	2 (7.7)	
Other	2 (7.7)	
Type of Treatment		
Radical RT	11 (42.3)	
Postoperative RT	15 (57.7)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Concomitant Chemotherapy	20 (76.9)	
Radiotherapy Dose (Gray)		
Total Dose	24	62.11 (9.243)
Daily Dose	57 P	2.04 (0.104)
Infections (before the DN4 completion)	W THEFT	
Candidiasis	3 (11.54)	
Herpes	2 (7.69)	
Pain medication	THE PARTY	
Opioids	8 (30.77)	The state of the s
NSADs	7 (26.92)	
Adjuvant (Pregabalin)	1 (3.85)	

Characteristics of the patients who completed a DN4q (n=26)

	DN4	Pain	Oral Mucositis	Xerostomia
DN4		r=0.617	r=0.752	r=0.590
	77	p=0.001	p<0.001	p=0.002
Pain	r=0.617		r=0.314	r=0.733
	p=0.001		p=0.119	p<0.001
Oral Mucositis	r=0.752	r=0.314	A STATE OF THE STA	r=0.444
	p<0.001	p=0.119		p=0.023
Xerostomia	r=0.590	r=0.733	r=0.444	
	p=0.002	p<0.001	p=0.023	

Correlations between DN4 score, intensity of pain, oral mucositis and xerostomia. (Spearmann's rho test - r).

Variable	N (%)			Mean (SD)		
	Total	<i>DN4≥4</i>	DN4<4	Total	<i>DN4≥4</i>	DN4<4
	(n=26)	(n=5)	(n=21)	(n=26)	(n=5)	(n=21)
Pain				7.46 (1.42)	8.40 (0.548)	7.24 (1.48)
Mild	-	-	-			
Moderate	13(50)	-	13(61.9)			
Severe	13(50)	5(100)	8(38.1)			
Oral Mucositis	E MARKET		P. 1	1.96 (0.92)	3.00 (0.00)	1.71 (0.85)
No	3(11.5)	-/-	3(14.3)		120 400	
Mild	2(7.7)	- 11	2(9.5)	N A		
Moderate	14(53.8)	-	14(66.7)			VASS
Severe	7(26.9)	5(100)	2(9.5)	THE WALL		LIKE E
Xerostomia				6.50 (2.14)	8.40 (0.548)	6.05 (2.13)
Mild	4(15.4)	-	4(19.0)			
Moderate	10(38.5)	-	10(47.6)			
Severe	12(46.2)	5(100)	7(33.3)			

Pain, Oral Mucositis and Xerostomia in patients who completed a DN4

NP descriptors	Total (n=26) n(%)	Negative DN4 (n=21), n(%)	Positive DN4 (n=5) n(%)	p-value
Burning	9 (34.62)	6 (28.6)	3 (60.0)	0.302
Painful cold		- 691 -71 -71	- 1866	12
Electric shocks	8 (30.77)	3 (14.3)	5 (100)	0.001
Tingling	5 (19.23)	2 (9.5)	3 (60.0)	0.034
Pins and needles	8 (30.77)	4 (19.0)	4 (80.0)	0.020
Numbness	5 (19.23)	1 (4.8)	4 (80.0)	0.002
Itching	4 (15.38)	2 (9.5)	2 (40.0)	0.155
Hypoesthesia to touch	1 (3.87)		1 (20.0)	0.192
Hypoesthesia to prick	-	-	-	-
Brushing	9 (34.62)	7 (33.3)	2 (40.0)	>0.999

Statistical significance of the NP descriptors between positive (≥4) and negative DN4 scores. (Fisher's exact test)

Five patients (19.23%) had a positive for NP, DN4 score ≥4. The most common NP descriptor was "burning" (34.62%) followed by "electric shocks" (30.77%) and "pins-and-needles" (30.77%). Statistically significant differences between positive and negative DN4q scores were observed for the "electric shocks", "tingling", "pins-and-needles" and "numbness" NP descriptors. Nine (34.62%) patients didn't report any NP descriptors. A direct correlation was observed between DN4q score and intensity of pain, OM and xerostomia (p<0.02). Pain medication was administered to fifteen (57.69%) patients. Adjuvant medication for NP was administered to 1 (1/5, 20%) patient with positive DN4

CONCLUSION:

Oral mucositis induced NP was assessed for the first time during RT/CRT for HNC. Neuropathic pain was recorded in 5 patients with 1 of them receiving adjuvant NP medication. This study highlights the lack of adequate recognition and management of OM related NP.