AIRO2023

Radioterapia Oncologica: l'evoluzione al servizio dei pazienti

Impact of nutritional counselling for head and neck cancer patients undergoing radiochemotherapy: a pilot prospective study

Carnevale M. G. L. Angelini, I. Bonaparte, G. Frosini, C. Mattioli, C. Orsatti, A. Peruzzi, V. Salvestrini, C. Becherini, I. Desideri, P. Bonomo, L. Livi

Radiation Oncology, Azienda Ospedaliero Universitaria Careggi, Università di Firenze, Firenze, Italy

Associazione Italiana
Radioterapia e Oncologia clinica

UNIVERSITÀ DEGLI STUDI FIRENZE

aouc Azienda Ospedaliero Universitaria Careggi

f r o
FONDAZIONE RADIOTERAPIA ONCOLOGICA

AIRO2023

Radioterapia Oncologica:
l'evoluzione al servizio dei pazienti

BACKGROUND

35-60% of HNSCC pts are **malnourished** at diagnosis

a)[1]

We aimed to evaluate the impact of dietary counselling in a cohort of patients with HNSCC treated with RT (+/-CT)

Unplanned treatment delays

Poor oncological outcomes

(1)   Nutrition intervention in patients receiving radiotherapy to head or neck area, Isenring E et al, 2004
(2)   Effect of chemoradiotherapy on nutrition status of patients with nasopharyngeal cancer, Hong JS et al, 2015

Associazione Italiana
Radioterapia e Oncologia clinica

MATERIALS AND METHODS

Single-centre, prospective study (AOU Careggi)

November 2020 and March 2021

Assessments:
- Baseline nutrition risk according the Malnutrition Universal Screening Tool (MUST)
- Mean body weight, BMI, variation in energy and protein intake
- At the start of treatment (T0); at mid-treatment (T1); at the end (T2); one month after (T3)
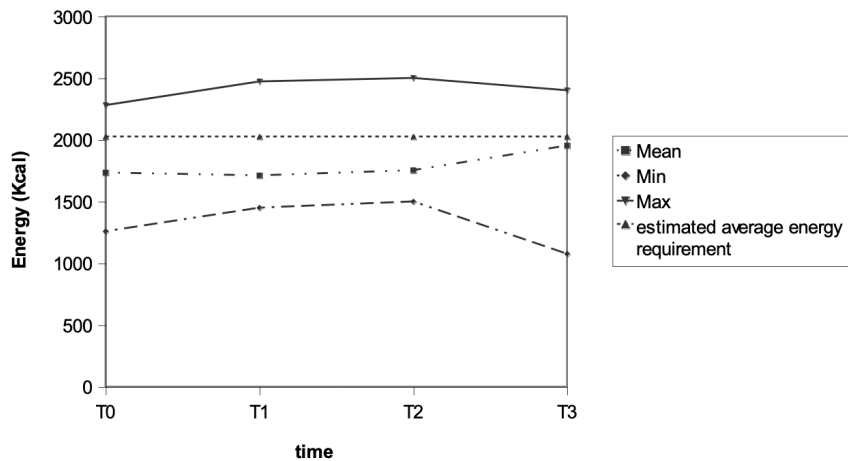
AIRO2023

RESULTS

Patients' characteristics

	Nº	%
Patients	17	100
Age		
mean	66,6	
range	56-81	
Male	13	77,5
Female	4	23,5
Performance Status (ECOG)		
0	15	88
1	2	12
2	0	
Tumor Site		
Oral Cavity	3	17,65
Salivary gland	2	11,76
Larynx	3	17,65
Oropharynx	7	41,17
Rhynopharynx	1	5,88
Unknown Primary	1	5,88
Treatment		
Adjuvant	4	18
Radical	13	82
Radiotherapy	6	35
Chemo-Radiotherapy	11	65
Treatment completed	17	100
Treatment delays	2	12

Associazione Italiana
Radioterapia e Oncologia clinica

AIRO2023

Radioterapia Oncologica:
l'evoluzione al servizio dei pazienti

RESULTS

Nutrition baseline characteristics

	Value
Weight (kg)	
Mean	75,2
Range	55,5-94,5
BMI T0	
Mean	25,7
Range	18,7-32,4
Type of nutrition	
Oral	15 (88%)
Artificial	2 (12%)
MUST Scale	
0	7 (41%)
1	5 (29,5%)
≥2	5 (29,5%)
Involuntary weight loss	
≤ 5%	9 (53%)
5-10%; ≥ 10%	8 (47%)
Energy Need (Kcal)	
Mean	2026
Range	1500-2500
Protein Need (gr.)	
Mean	85
Range	67-109
INTAKE T0 (Kcal)	
Mean	1734
Range	1258-2280
INTAKE T0 (gr. Prot)	
Mean	72
Range	33-99

Associazione Italiana
Radioterapia e Oncologia clinica

AIRO2023

RESULTS

Energy intake

Proteic Intake
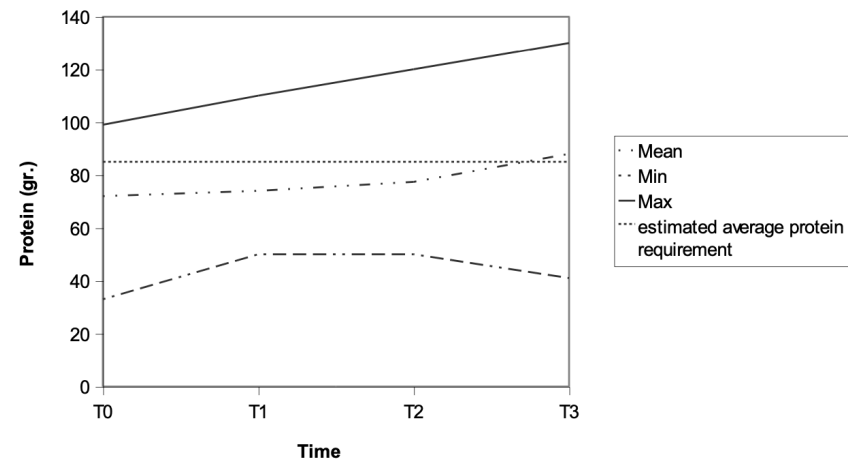
Parameters	Baseline (T0) n (%)	T 1	T2	T3
ONS (% pz)	5 (29)	11 (65)	13 (76)	2 (12)

Associazione Italiana
Radioterapia e Oncologia clinica

AIRO2023

Radioterapia Oncologica:
l'evoluzione al servizio dei pazienti

RESULTS
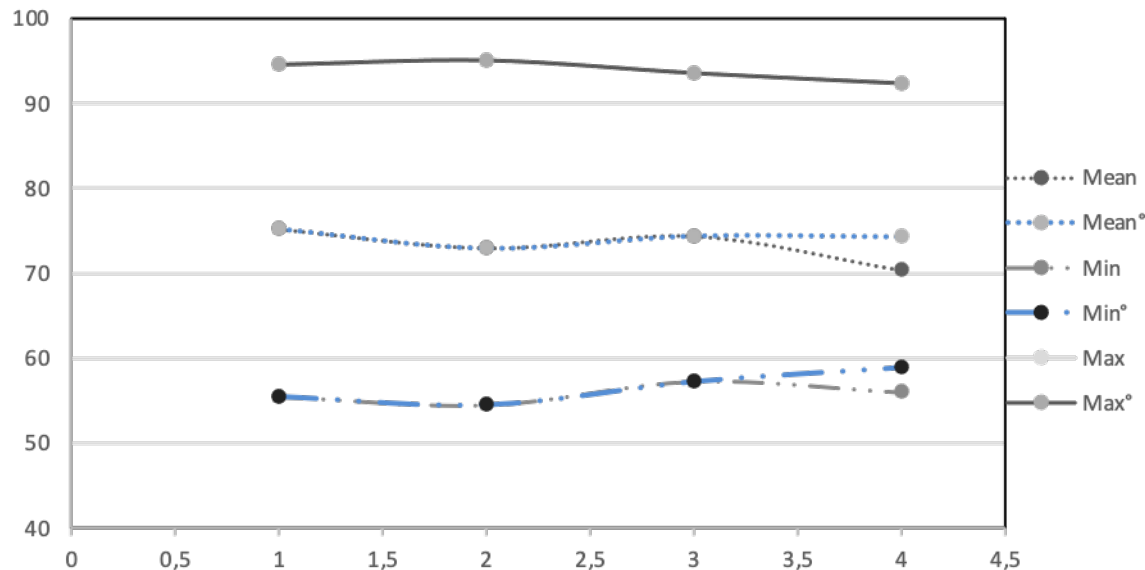
At mid-treatment (T1), mean body weight showed a reduction from baseline, with a little increase at the end of therapy. Globally, we observed body weight stability during the treatment period and a recovery from the observed minimum weight (mean 74.3 vs 74.4 kg).

AIRO2023

Radioterapia Oncologica:
l'evoluzione al servizio dei pazienti

RESULTS

Symptoms/toxicities with a nutritional impact

NIS	T0 (n ; %)	T1 (n ; %)	T2 (n ; %)	T3 (n ; %)
Mucositis				
G0	15 ; 88	6 ; 35	7 ; 41	15 ; 78
G1	1 ; 6	7 ; 41	5 ; 29	0
G2	1 ; 6	4 ; 23	5 ; 29	0
G3	0	0	0	2 ; 12
Dysphagia				
G0	13 ; 76,5	6 ; 35	1 ; 7	12 ; 71
G1	3 ; 17,5	8 ; 47	13 ; 72	5 ; 29
G2	1 ; 6	3 ; 18	3 ; 21	0
Xerostomia				
G0	10 ; 59	4 ; 23	7 ; 42	9 ; 53
G1	5 ; 29	8 ; 47	5 ; 29	6 ; 35
G2	2 ; 12	5 ; 30	5 ; 29	2 ; 12
Anorexia				
G0	12 ; 70	10 ; 58	5 ; 29	11 ; 64
G1	4 ; 24	4 ; 24	8 ; 50	4 ; 24
G2	1 ; 6	3 ; 18	4 ; 21	2 ; 12
Dysgeusia				
G0	8 ; 47	2 ; 12	0	3 ; 18
G1	7 ;41	7 ; 41	8 ; 47	9 ; 53
G2	2 ; 12	8 ; 47	9 ; 53	5 ; 29
Odynophagia				
G0	12 ; 71	6 ; 35	6 ; 36	9 ; 53
G1	5 ; 29	8 ; 47	6 ; 36	6 ; 35
G2	0	3 ; 18	5 ; 28	2 ; 12

AIRO2023

Radioterapia Oncologica:
l'evoluzione al servizio dei pazienti

CONCLUSIONS

In our cohort, baseline risk and nutritional status were consistent with literature data

Mean body weight drops slightly at mid-treatment, with a recovery after 1 month.

It was necessary to increase nutritional support (ONS) during treatment to ensure adequate energy and protein intake.

All patients successfully completed the treatement.

Associazione Italiana
Radioterapia e Oncologia clinica