

XXXIII CONGRESSO NAZIONALE AIRO

AIRO2023

BOLOGNA,
27-29 OTTOBRE 2023

PALAZZO DEI CONGRESSI

Radioterapia Oncologica: l'evoluzione al servizio dei pazienti

SUBJECTIVE AND OBJECTIVE DEGLUTITION OUTCOMES AFTER SWALLOWING (SWOARS)-SPARING IMRT IN HEAD AND NECK CANCERS: DEFINITIVE RESULTS FROM A PROSPECTIVE MULTICENTER STUDY ENDORSED BY THE HEAD AND NECK STUDY GROUP (HNSG) OF THE ITALIAN ASSOCIATION OF RADIOTHERAPY AND CLINICAL ONCOLOGY (AIRO)

Prof. Stefano Ursino

Azienda Ospedaliera Universitaria di Pisa

Stefano Ursino declares the following conflicts of interest:

- Travel and Congress grants (Merck Serono; Astra Zeneca)
- Congress and courses support grants (Merck Serono; Nestlè; Kyowakirin)
- Meeting Honoraria (Cliningen Specialty Pharmaceuticals)


COMPLETED 

Dysphagia Assessment After Swallowing Sparing RadioTherapy (DASRT)

ClinicalTrials.gov ID  NCT03448341

AIRO HN Study Group

Sponsor  Azienda Ospedaliero, Universitaria Pisana

Information provided by  Stefano Ursino, MD, Azienda Ospedaliero, Universitaria Pisana (Responsible Party)

Last Update Posted  2022-09-15

Participating centers

- **Pisa (Promoting center)**
- Roma Policlinico Umberto I
- Torino Le Molinette
- Firenze Careggi
- Lucca
- Verona Negrar

Endpoints of the Study

Primary aim

To assess the variations of MDADI, FEES and VFS scores from baseline to 6 and 12 months after treatment

Secondary aim

1. To correlate **swallowing-related QoL** (MDADI scores) with **objective swallowing function** (FEES and VFS scores) results
2. To correlate RT dose received by the different SWOARs with the variations of clinical (MDADI) and instrumental (FEES and VFS) scores

Materials and Methods

Inclusion Criteria	Exclusion Criteria
<u>Primary subsite</u> <u>Nasopharynx and Oropharynx</u>	<u>Primary subsite different from Nasopharynx and Oropharynx</u>
Stage (7° TNM Ed.) <u>Nasopharynx</u> II-III (T1N2; T2a-bN2; T3N0-2) <u>Oropharynx</u> III (T1-2N1; T3N0-1) IVA (T1N2; T2-3N2; T4aN0-2)	<u>Nasopharynx</u> IV (T4 ogni N; ogni T N3; M1) <u>Oropharynx</u> IVB (T4b ogni N; ogni T N3) IVC (M1)
ECOG Status 0-2	ECOG Status 3
Age <75 yrs	Age ≥ 75 anni
<u>Cisplatin-based Radiochemotherapy</u> <u>(100mg/mq triweekly o 40 mg/mq weekly)</u>	<u>Prior induction chemotherapy</u>
	<u>Prior head and neck oncologic surgery</u>
	<u>Prior radiotherapy on head and neck region</u>
	<u>Concomitant disease that might affect swallowing function (es. Multiple sclerosis; Amyotrophic Lateral Sclerosis; Connective disease)</u>

Materials and Methods

MDADI score

• ≥80 Optimal

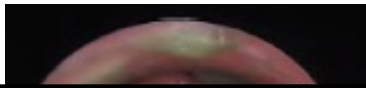
•
•

«Poor»

**SUBJECTIVE
OUTCOMES**
(SWALLOWING-RELATED QoL)




FEES



**OBJECTIVE
OUTCOMES**
(SWALLOWING FUNCTION)

Pharyngeal Residue
(PR-Score)

VFS

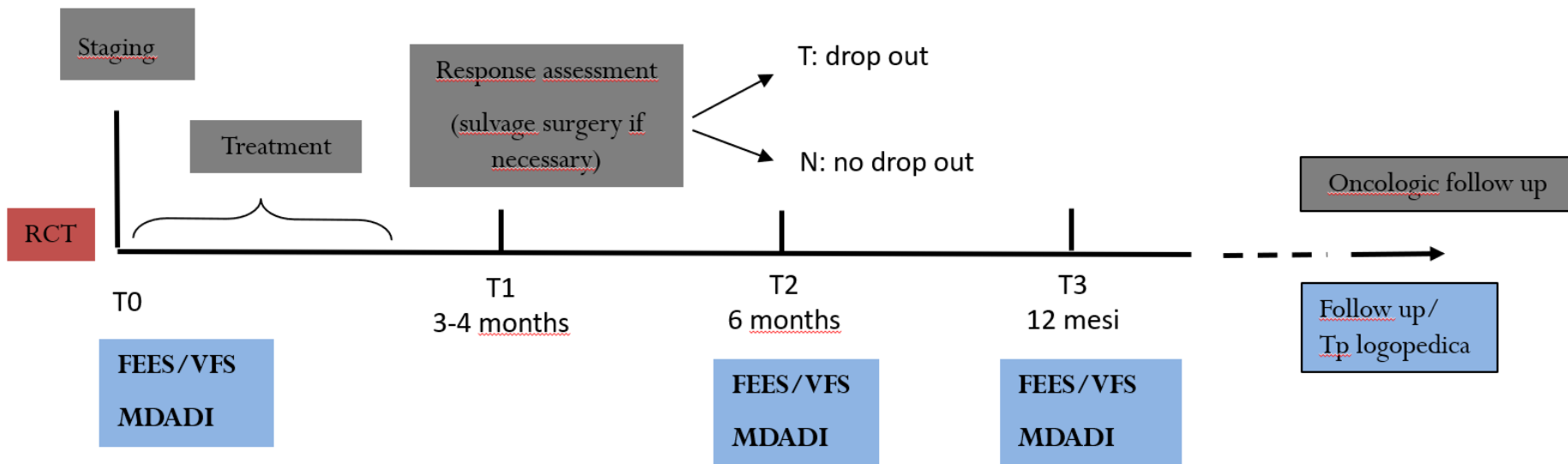


Penetration/Aspiration

MCID
(Minimal Clinical Interest Difference)
10 points
(Hutcheson et al. Laryngoscope 2016)

- | | |
|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> 0: Absence <input type="checkbox"/> 1: Mild <input type="checkbox"/> 2: Moderate <input type="checkbox"/> 3: Severe | <ul style="list-style-type: none"> ❖ 0-1: Normal ❖ 2-5: Penetration ❖ 6-8: Aspiration |
|---|--|

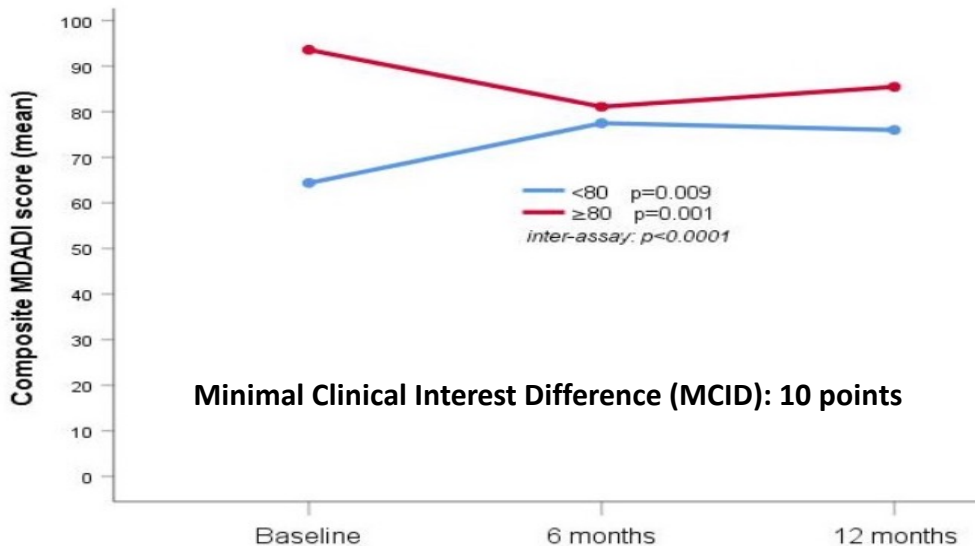
Flow Chart





Patient-Reported Outcomes After Swallowing (SWOARs)-Sparing IMRT in Head and Neck Cancers: Primary Results from a Prospective Study Endorsed by the Head and Neck Study Group (HNSG) of the Italian Association of Radiotherapy and Clinical Oncology (AIRO)

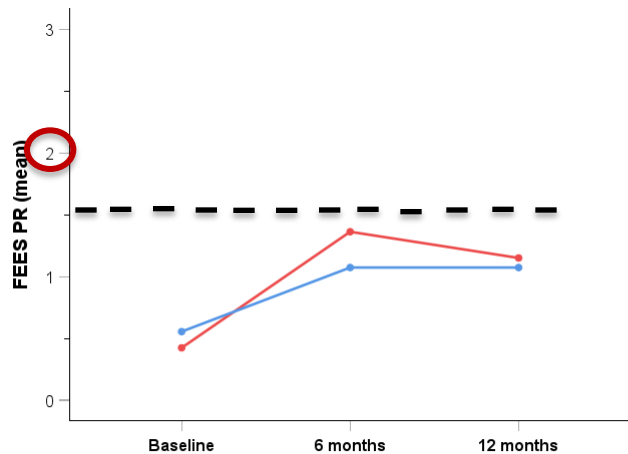
Stefano Ursino¹ · Elisa Calistri¹ · Francesca De Felice² · Pierluigi Bonomo³ · Isacco Desideri³ · Pierfrancesco Franco⁴ · Francesca Arcadipane⁵ · Caterina Colosimo^{1,6} · Rosario Mazzola⁷ · Marta Maddalo⁸ · Alessandra Gonnelli¹ · Giulia Malfatti¹ · Riccardo Morganti⁹ · Daniela Musio² · Fabiola Paia¹



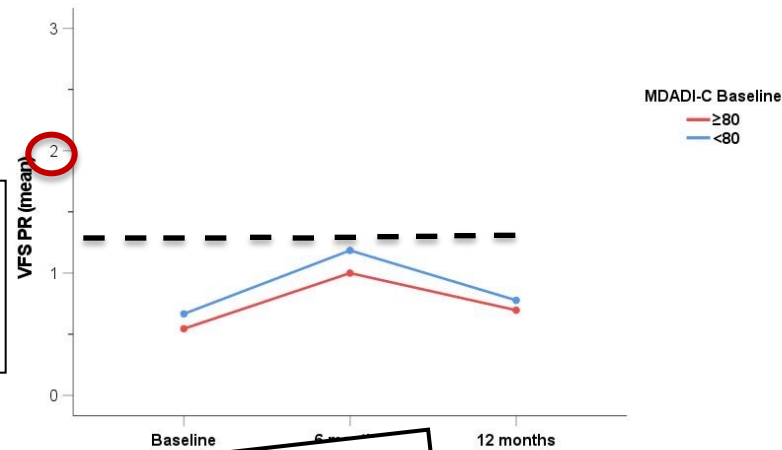
OPTIMAL GROUP
 Statistically significant but **NOT CLINICALLY RELEVANT** WORSENING of MDADI-C score

ADEQUATE/POOR GROUP
 Both statistically significant and **CLINICALLY RELEVANT** IMPROVEMENT of MDADI-C score

Results



August 2015-November 2021
75 enrolled pts
40 (53%) MDADI-C ≥80 at baseline
35 (47%) MDADI-C <80 at baseline



FEES PR score (MDADI-C ≥80)	Mean	FEES PR score (MDADI-C <80)	Mean	Pharyngeal Position	VFS PR score (MDADI-C ≥80)	Mean	VFS PR score (MDADI-C <80)	Mean
Baseline					Baseline		Baseline	0,55
6 months					6 months	1,19	6 months	1,00
12 months			1,15	2. Moderate 3: Severe	12 months	0,78	12 months	0,70

No correlation between MDADI-C group (≥80 and <80) and FEES and VFS P-score at the 3 different time intervals (p>0,05)

Conclusions

- **Doubly clinical benefit of SWOARs-sparing IMRT:** recovery from cancer-related dysphagia (MDADI-C <80) and reduction of radiation sequelae (MDADI-C ≥80) and (*Ursino et al. Dysphagia 2023*)
- **Swallowing function preservation of SWOARs-sparing IMRT:** low objective scores after treatment both in MDADI-C ≥80 and in MDADI-C <80 pts group
- **Lack of correlation between SUBJECTIVE and OBJECTIVE deglutition outcomes:** referred post-radiation dysphagia (PROs) is likely not to be associated to functional deglutition impairment rather to persistence of inflammation of SWOARs

AIRO2023

Radioterapia Oncologica:
l'evoluzione al servizio dei pazienti



Thanks for your attention

stefano.ursino@med.unipi.it