UNIVERSITÀ DEGLI STUDI
DI GENOVA

Associazione
Italiana
Radioterapia
Oncologica
GRUPPO DI STUDIO
TESTA COLLO

IL RUOLO DELLA NUTRIZIONE ENTERALE

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INTRODUCTION:

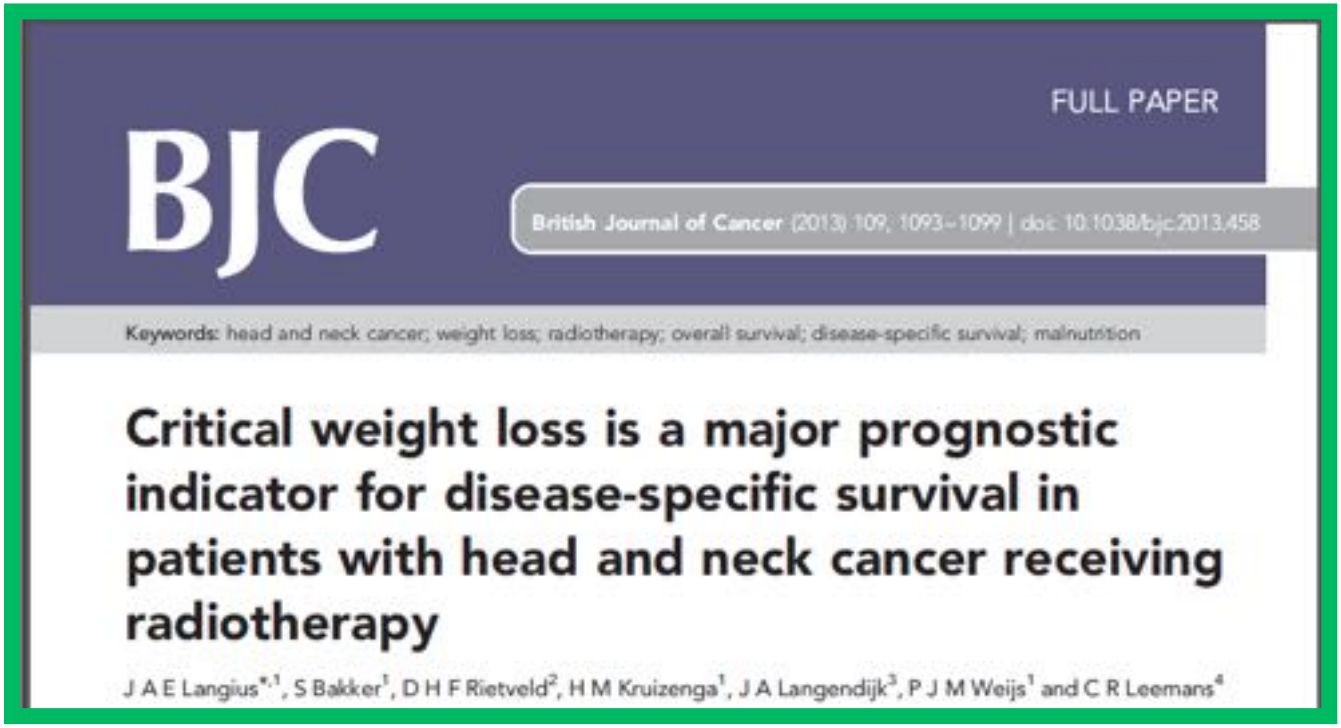
- Head and neck cancer and its treatment may have serious functional consequences for patients.

- Nutritional compromission

- at diagnosis due to dysphagia or odynophagia from the primary tumor
- during RT malnutrition rises to 41-88%
- sequelae of RT and weigh loss may continue for several weeks after RT

LANGIUS et al 2010

1340 pts



FULL PAPER

BJC

British Journal of Cancer (2013) 109, 1093–1099 | doi: 10.1038/bjc.2013.458

Keywords: head and neck cancer; weight loss; radiotherapy; overall survival; disease-specific survival; malnutrition

Critical weight loss is a major prognostic indicator for disease-specific survival in patients with head and neck cancer receiving radiotherapy

J A E Langius*[,1], S Bakker[1], D H F Rietveld[2], H M Kruizenga[1], J A Langendijk[3], P J M Weijs[1] and C R Leemans[4]

70% had	no WL	Five-year OS rate	71%
16% had	<5% WL		59%
9% had	>5–10% WL		47%
5% had	>10% WL		42%
			(P<0.001)

NUTRITIONAL SUPPORT:

- Dietary counseling and nutritional supplements
- Enteral nutrition
- Parenteral nutrition

ENTERAL NUTRITION:

50%-70% of patients treated with CRT:

- will have severely impaired swallowing
- require an enteral feeding tube (FT) during or immediately after treatment

  ➔ PEG or NGT

Koyfman SA.. Int J Radiat Oncol Biol Phys. 2012

RISK FACTORS:

Patient related:	pretreatment weigth loss and/or dysphagia BMI, age, PS heavy tabacco/alcool use
Tumour related:	large T primary site (hypopharynx and larynx cancer)
Treatment related:	accelerated or hyperfractionated RT cc CT use of post CRT neck dissection

TIMING: PROPHYLACTIC vs REACTIVE

- 2 randomized trials
- Retrospective studies

Contents lists available at ScienceDirect

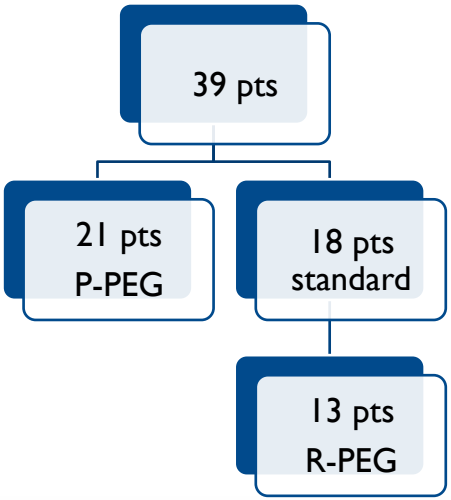
Radiotherapy and Oncology

journal homepage: www.thegreenjournal.com

Randomized trial

Impact of the prophylactic gastrostomy for unresectable squamous cell head and neck carcinomas treated with radio-chemotherapy on quality of life: Prospective randomized trial

Sébastien Salas [a,1], Karine Baumstarck-Barrau [b,*,1], Marc Alfonsi [c], Laurence Digue [a], Danielle Bagarry [a], Nasreddine Feham [d], René Jean Bensadoun [e], Thierry Pignon [f], Anderson Loundon [b], Jean-Laurent Deville [a], Michel Zanaret [g], Roger Favre [a], Florence Duffaud [a], Pascal Auquier [b]



Endpoint: QoL

Patients evaluation:

- T0
- 4th week
- RT end
- 6 months

Results:

- No differences in BMI at RT end and at 6 months
- Better QoL at 6 months with P-PEG

HEAD & NECK—DOI 10.1002/hed January 2012

IMPACT OF PROPHYLACTIC PERCUTANEOUS ENDOSCOPIC GASTROSTOMY ON MALNUTRITION AND QUALITY OF LIFE IN PATIENTS WITH HEAD AND NECK CANCER—A RANDOMIZED STUDY

Ewa Silander, RD,[1] Jan Nyman, MD, PhD,[2] Mogens Bove, MD, PhD,[3] Leif Johansson, MD, PhD,[4] Sven Larsson, MD,[5] Eva Hammerlid, MD, PhD[1]

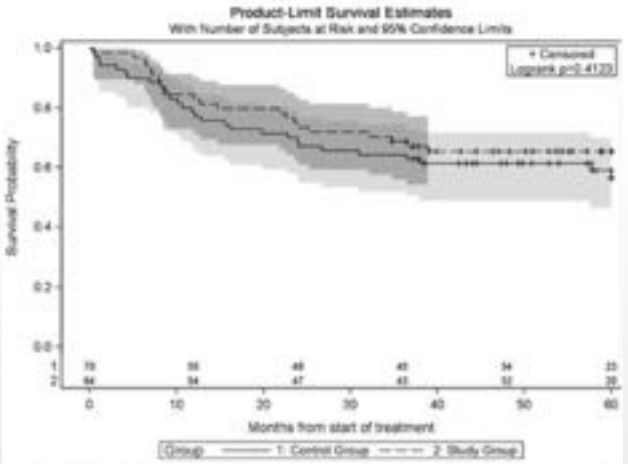
Evaluation: T0, 1-2-3-6-12-24 month

RESULTS:

- Use of enteral feeding: 177 vs 122 days ($p < 0{,}0001$)
- QoL at 6 months > P-PEG

Weight loss	6 months	1 year	2 years
P-PEG	11,2%	11,1%	8,9%
Control	12,4%	9%	6,6%

Malnutrition	2 months	6 months	1 year	2 years
P-PEG	6%	62%	52%	48%
Control	19%	71%	56%	37%



TIMING:

Study	% weigth loss	Comments
Nugent 2010 (76 pts)	ONS: 6.1%	No difference
	NGT: 8.5%	
	R-PEG: 8.7%	
	P-PEG:8.5%	
Chen 2010 (120 pts)	P-PEG: 14% R-PEG: 8%	P < 0,001 RT end
Williams 2012 (104 pts)	P-PEG: 6.1%	No difference
	R-PEG: 7.1%	
	NGT: 6.2%	
Olson 2013 (445 pts)	P-PEG: R-PEG:	No differences
Lewis 2013 (109 pts)	Control: 10.5% P-PEG: 4.3% R-PEG: 10.1%	P< 0,001 RT end
Kramer 2014 (86 pts)	P-PEG: 5.6% R-PEG: 7.6%	No difference

PEG vs NGT:

Evaluate:

- Weigth loss
- Complications
- QoL
- FT dependance
- Cost

PEG vs NGT:WEIGHT

Study		Weight loss
Magnè 2001	NGT 40 pts PEG 50 pts	Weight and BMI comparable at 3 and 6 weeks
Corry 2009- prospective	NGT 73 pts PEG 32 pts	At 6 weeks greater with NGT >% pts with NGT had loss> 10% body weigth
Sadivan 2012- prospective	NGT 50 pts PEG 50 pts	Weight, HB level, mid-arm circumference at 1-6 weeks and 6 month better with PEG

PEG vs NGT: QOL

Study		Results
Magnè 2001	NGT 40 pts PEG 50 pts	Better QoL with PEG
Corry 2009- prospective	NGT 73pts PEG 32pts	1 week: Worse pain with PEG vs NGT ($p<0.001$) 6 week: NGT 'more incovenient' and interfer with socialactivities
Sadivan 2012- prospective	NGT 50 pts PEG 50 pts	Better QoL with PEG ($p<0.01$)

PEG vs NGT: FT DEPENDENCE

Study		Results
Mekhail 2001	NGT 29 pts PEG 62 pts	Dysphagia more persistence with PEG at 3 and 6 months
Corry 2009- prospective	NGT 73 pts PEG 32 pts	57 vs 146 days ($p<0.001$) 8% vs 25% dysphagia G3 ($p=0.07$)

PEG vs NGT: COMPLICATIONS

Study		Dislodgements	Infections
Magnè 2001	NGT 40 pts PEG 50 pts	67% vs 8%	52% vs 16%
Corry 2009- prospective	NGT 73 pts PEG 32 pts	62%vs 19% p<0,001	30% vs 66% p=0.001
Sadivan 2012- prosp	NGT 50 pts PEG 50 pts	36% vs 0% P<0.001	64% vs 4% p<0.001

PEG:

- Colonic ileus
- Bowel perforation
- Gastrointestinal hemorrhage
- Fistula

NGT:

- Tube uncomfortable
- Tube blocking
- Pharyngeal ulceration
- Refusal of reinsertion
- Bleeding

CONCLUSIONS:

TIMING:

Prophylactic approach:

- Preventing treatment related weigth loss
- Reducing rates dehydratation
- Reducing rates hospitalizations
- Avoiding treatment breaks

Reactive approach:

- Limited to pts unable to mantain nutritional status
- Spare patients who do not need enteral nutrition
- Shorter duration of tube dependence
- Better functional long term outcomes

CONCLUSIONS:

PEG vs NGT:

PEG:

- More aesthetic
- Less disconfort
- Fewer dislodgements
- Better weight preservation
- Better QoL

NGT:

- Easier to place
- Smaller risk of serious complication
- Lower cost
- Less late dysphagia
- Shorter duration of tube dependence
- Less need for pharyngoesophageal dilatation

OUR EXPERIENCE…..

- Multidisciplinary discussion

- Patients with supraglottic larynx, hypopharynx and tongue basis tumour
- Patients with severe loss weight

  → nutritional and phoniatric evaluation -> prophilactic ?

- All patients -> Dietary counseling

  Nutritional supplements

  R-NGT