

# IDENTIFYING RISK OF MALNUTRITION IN DYSPHAGIC HEAD AND NECK CANCER PATIENTS

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## BACKGROUND

Malnutrition in head and neck cancer (HNC) patients is associated with increased morbidity & mortality

### Purpose

- 1) Identify risk of malnutrition in a sub-population of patients with oropharyngeal dysphagia (OD) secondary to HNC
- 2) Determine the relationship between risk of malnutrition versus tumor characteristics, treatment modality, time interval between end of oncological treatment and swallowing assessment date, functional oral intake scale (FOIS), body mass index (BMI), aspiration, pharyngeal pooling, and OD-related quality of life (QoL)

## METHODS

**Inclusion:** patients with OD secondary to HNC

**Short Nutritional Assessment Questionnaire (SNAQ):** used to screen patients for risk of malnutrition

- Patients were divided in 2 groups: low risk of malnutrition (SNAQ 0-1 point) versus high risk of malnutrition (SNAQ  $\geq 2$  points)

**Patients underwent a swallowing examination protocol including:**

- Fiberoptic endoscopic evaluation of swallowing (FEES) to identify aspiration and pharyngeal pooling
- Functional Oral Intake Scale (FOIS)
- Dysphagia Severity Score (DSS) & Dysphagia Quality of Life (DQL) to determine OD-related QoL
- 2 blinded judges identified presence/absence of aspiration & pharyngeal pooling
- Logistic regression analysis adjusted for age, gender, and tumor classification

**SNAQ**  
Short Nutritional Assessment Questionnaire

- Did you lose weight unintentionally?  
More than 6 kg in the last 6 months  
More than 3 kg in the last month
- Did you experience a decreased appetite over the last month?
- Did you use supplemental drinks or tube feeding over the last month?

● no intervention  
●● moderately malnourished; nutritional intervention  
●●● severely malnourished; nutritional intervention and treatment dietician

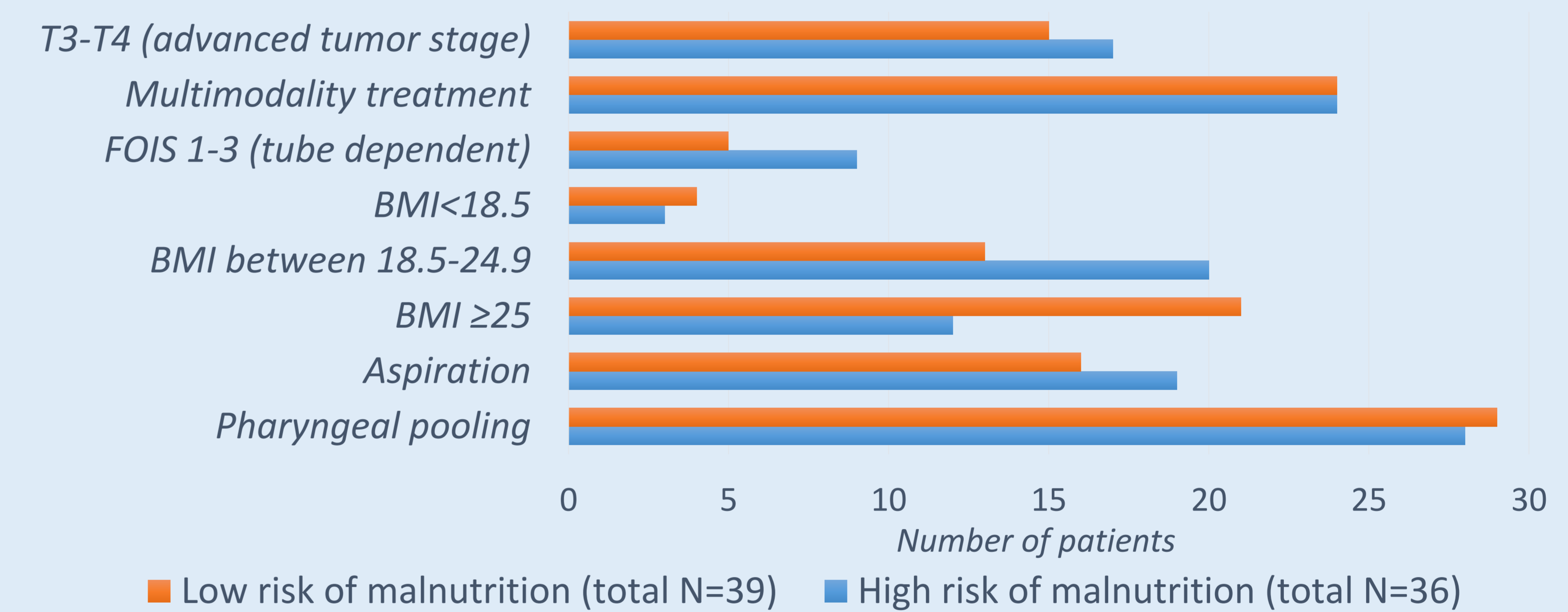
## RESULTS

### Patient characteristics

- 75 dysphagic HNC patients
- Mean age: 65.9 years (SD 10 years)
- Most common tumor site: pharynx 36%
- High risk of malnutrition (SNAQ  $\geq 2$  points): 48%
- Total oral diet (FOIS 4-7): 81.3%
- Mean BMI: 25 (SD 5.7)
- FEES: Aspiration 47.3%  
Pharyngeal pooling 77%
- OD-related QoL (median score): DSS 45.5 & DQL 29

### Logistic regression analysis

- Normal BMI (BMI 18.5-24.9) was often associated with high risk of malnutrition ( $p=0.023$ )
- Patients who were underweight (BMI < 18.5) or overweight (BMI  $\geq 25$ ) did not show an association with high risk of malnutrition
- With the exception of BMI, no other variables studied such as treatment modality, FOIS, etc. were associated with the risk of malnutrition



## CONCLUSION

- ✓ This study emphasizes the importance of early nutritional screening in dysphagic HNC patients, as almost half of these patients presented a high risk of malnutrition
- ✓ There was a high risk of malnutrition in the HNC patient subgroup with a normal BMI
- ✓ It is highly recommended to screen the nutritional status after oncological treatment and during long term follow-up in all HNC survivors, including the ones presenting with a normal BMI
- ✓ The SNAQ screening tool may identify HNC patients with OD that need to be referred to a dietician for additional nutritional assessment, and nutritional support, even when their BMI is within normal range

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