

ABSTRAK

PERUBAHAN *NUTRITION IMPACT SYMPTOM* (NIS) DAN STATUS GIZI BERDASARKAN KRITERIA *GLOBAL LEADERSHIP INITIATIVE ON MALNUTRITION* (GLIM) PADA PASIEN KANKER KEPALA LEHER YANG MENJALANI RADIOTERAPI Dhiyanisa Nadhira-Lubis¹, Siti Fatimah-Muis², Febe Christianto², Hertanto Wahyu-Subagio², CH Nawangsih Prihharsanti³

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Latar belakang: Kanker kepala dan leher merupakan salah satu keganasan dengan risiko malnutrisi tertinggi. Radioterapi dapat menyebabkan berbagai NIS seperti mulut kering, perubahan rasa, disfagia dan nyeri rongga mulut yang dapat menurunkan asupan makanan serta memperburuk status gizi. Penilaian status gizi menggunakan kriteria GLIM diharapkan dapat menggambarkan perubahan status gizi selama terapi.

Tujuan: Mengetahui perubahan NIS dan status gizi berdasarkan GLIM pada pasien kanker kepala dan leher yang menjalani radioterapi.

Metode penelitian: Penelitian *cohort* prospektif dengan desain *time series* dilakukan pada pasien kanker kepala dan leher yang menjalani radioterapi selama periode Juni–Desember 2025. Sebanyak 40 subjek diikuti hingga selesai radioterapi dosis 60 Gy. Penilaian NIS dilakukan menggunakan *Head and Neck Patient Symptom Checklist* (HNSC), sedangkan status gizi dinilai menggunakan kriteria GLIM. Analisis perubahan menggunakan uji Wilcoxon dan McNemar, sedangkan hubungan antarvariabel menggunakan korelasi Spearman dan Pearson.

Hasil: Seluruh subjek mengalami gejala NIS setelah radioterapi. Gejala terbanyak adalah perubahan rasa (92,5%), mulut kering (90,0%) dan air liur kental (87,5%). Status gizi memburuk setelah radioterapi dengan peningkatan proporsi subjek yang mengalami malnutrisi berat dari 45,0% sebelum radioterapi menjadi 87,5% setelah radioterapi. Terdapat hubungan bermakna antara perubahan skor NIS dan perubahan asupan energi dengan perubahan skor GLIM ($r=0,320$; $p=0,044$, $r=-0,467$; $p=0,002$).

Simpulan: Radioterapi berhubungan dengan peningkatan NIS dan perburukan status gizi berdasarkan GLIM pada pasien kanker kepala dan leher. Temuan ini menunjukkan pentingnya deteksi dini dan intervensi gizi sejak sebelum radioterapi untuk mencegah perburukan status gizi selama terapi.

Kata kunci: kanker kepala dan leher, radioterapi, *nutrition impact symptom*, GLIM, status gizi

ABSTRACT
**CHANGES IN NUTRITION IMPACT SYMPTOM (NIS) AND NUTRITIONAL STATUS
BASED ON GLOBAL LEADERSHIP INITIATIVE ON MALNUTRITION GLIM CRITERIA
IN HEAD AND NECK CANCER PATIENTS UNDERGOING RADIOTHERAPY**
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Background: Head and neck cancer is one of the malignancies with the highest risk of malnutrition. Radiotherapy may cause various NIS, including xerostomia, taste alteration, dysphagia, and oral pain, which may reduce dietary intake and worsen nutritional status. Nutritional assessment using GLIM criteria is expected to reflect changes in nutritional status during treatment.

Objective: NIS and nutritional status based on GLIM criteria in patients with head and neck cancer undergoing radiotherapy.

Methods: This prospective cohort study with a time-series design was conducted in patients with head and neck cancer undergoing radiotherapy from June to December 2025. A total of 40 subjects were followed until completion of radiotherapy at a dose of 60 Gy. NIS were assessed using the Head and Neck Patient Symptom Checklist (HNSC), while nutritional status was evaluated using GLIM criteria. Changes were analyzed using the Wilcoxon and McNemar tests, whereas correlations between variables were assessed using Spearman and Pearson correlation tests.

Results: All subjects experienced NIS after radiotherapy. The most frequent symptoms were taste alteration (92.5%), xerostomia (90.0%), and thick saliva (87.5%). Nutritional status deteriorated after radiotherapy, with the proportion of subjects with severe malnutrition increasing from 45.0% before radiotherapy to 87.5% after radiotherapy. Significant correlations were found between changes in NIS scores and energy intake with changes in GLIM scores, respectively ($r=0.320$; $p=0.044$; $r=-0.467$; $p=0.002$).

Conclusion: Radiotherapy was associated with increased NIS and deterioration of nutritional status based on GLIM criteria in patients with head and neck cancer. These findings highlight the importance of early nutritional screening and intervention before radiotherapy to prevent further deterioration of nutritional status during treatment.

Keywords: head and neck cancer, radiotherapy, nutrition impact symptoms, GLIM, nutritional status