

KORELASI DOSIS RADIASI DAN KEPARAHAN TRISMUS, XEROSTOMIA, DAN DISFAGIA PADA PENDERITA KANKER NASOFARING RSUP DR SARDJITO

INTISARI

Latar Belakang: Karsinoma nasofaring (KNF) adalah karsinoma sel skuamosa pada lapisan epitel nasofaring yang banyak ditemukan di beberapa daerah termasuk Asia Tenggara. Karsinoma nasofaring memiliki radiosensitivitas yang tinggi sehingga radioterapi digunakan sebagai pengobatan standar KNF. Meskipun radioterapi merupakan pengobatan yang efektif untuk KNF, radioterapi pada daerah kepala dan leher sering menyebabkan komplikasi akut dan kronis. Dosis radiasi yang diberikan selama radioterapi berperan dalam tingkat keparahan komplikasi radioterapi.

Tujuan: Penelitian ini bertujuan untuk mengetahui hubungan dosis radiasi yang diberikan selama radioterapi dengan tingkat keparahan komplikasi oral pada pasien KNF.

Metode: Penelitian ini merupakan penelitian observasional analitik dengan desain penelitian *cross sectional*. Populasi penelitian terdiri dari 28 penderita KNF yang telah menyelesaikan pengobatan di RSUP Dr. Sardjito Sleman Yogyakarta dari bulan September 2020 sampai dengan Oktober 2021. Dosis radiasi yang diterima selama radioterapi diperoleh dari rekam medis. Xerostomia subjektif diukur dengan menggunakan kuesioner Summated Xerostomia Inventory (SXI-ID), xerostomia objektif diukur dengan menggunakan Clinical Oral Dryness Score, disfagia diukur menggunakan kuesioner MD Anderson Dysphagia Inventory (MDADI), dan trismus diukur melalui pengukuran *maximum interincisal opening* (MIO). Data yang diperoleh akan dianalisis menggunakan uji korelasi rank Spearman.

Hasil: Terdapat hubungan yang signifikan antara skor SXI total dengan dosis total radioterapi yang diterima ($r=0,641$ dan $p=0,0001$). Terdapat pula hubungan positif yang signifikan antara skor CODS dengan total dosis radioterapi yang diterima ($r=0,506$ dan $p=0,006$). Namun tidak terdapat hubungan signifikan antara skor MDADI dengan total dosis radioterapi yang diterima pasien ($r=-0,182$ dan $p=0,355$) serta antara pengukuran MIO dengan total dosis radioterapi yang diterima pasien ($r=0,130$ dan $p=0,510$).

Kesimpulan: Terdapat hubungan signifikan antara dosis total radioterapi yang diterima pasien dengan xerostomia objektif dan subjektif pasca radioterapi. Namun, tidak ada korelasi signifikan yang ditemukan antara dosis radiasi total dan disfagia dan trismus.

Kata kunci: karsinoma nasofaring, trismus, xerostomia, dysphagia, dosis radiasi

CORRELATION OF RADIATION DOSE AND SEVERITY OF TRISMUS, XEROSTOMIA, AND DYSPHAGIA IN NASOPHARYNGEAL CANCER SURVIVORS IN DR. SARDJITO GENERAL HOSPITAL

ABSTRACT

Background: Nasopharyngeal carcinoma (NPC) is a squamous cell carcinoma found in the epithelial lining of the nasopharynx that is highly prevalent in several areas including Southeast Asia. In regards to treatment, high radiosensitivity of NPC makes radiotherapy the standard treatment of NPC. Although radiotherapy is an effective treatment option for NPC, radiotherapy of the head and neck region often causes acute and long-term complications. The radiation dose given during radiotherapy is believed to play a role in the severity of radiotherapy-induced complications.

Objective: This study aimed to explore the correlation of radiation dose given during radiotherapy and the severity of oral complications in NPC patients.

Method: This study is an observational analytical study with a cross-sectional study design. The study population consists of 28 NPC survivors who have completed treatment in Dr. Sardjito General Hospital in Sleman, Yogyakarta from September 2020 to October 2021. Radiation dose received during radiotherapy was obtained from medical records. Subjective xerostomia was measured using the Summated Xerostomia Inventory (SXI-ID) questionnaire, objective xerostomia was measured using Clinical Oral Dryness Score, dysphagia was measured using the MD Anderson Dysphagia Inventory (MDADI) questionnaire, and trismus was measured through the measurement of maximum interincisal opening (MIO). Data obtained will be analyzed using Spearman's rank correlation coefficient test.

Results: There is a significant correlation between the total SXI score and the total radiotherapy dose received ($r=0.641$ and $p=0.0001$). There is also a positive significant correlation between the CODS score and total radiotherapy dose received ($r=0.506$ and $p=0.006$). However, there is no significant correlation between the MDADI score and the total radiotherapy dose received by the patients ($r=-0.182$ and $p=0.355$) as well as between MIO measurement and the total radiotherapy dose received by the patient ($r=0.130$ and $p=0.510$).

Conclusion: There is a significant correlation between total radiotherapy dose received by the patients and objective and subjective xerostomia post-radiotherapy. However, no significant correlation was found between total radiation dose and dysphagia and trismus.

Keywords: nasopharyngeal carcinoma, trismus, xerostomia, dysphagia, radiation dose