

INTISARI

Latar Belakang: High-sensitivity C-reactive protein (hs-CRP) adalah reaktan akut klasik yang muncul secara rapid dan ekstensif sebagai respon dari sekresi sitokin pada saat kerusakan jaringan, infeksi dan inflamasi. Tumor Necrosis Factor α (TNF- α) adalah sitokin pro-inflamasi yang di sekresi oleh sel-sel inflamasi saat proses inflamasi. Inflamasi sering kali di kaitkan dengan kanker, sebagaimana proses inflamasi kronis menyebabkan sekresi sitokin dan kemokin yang mendukung keadaan sel kanker untuk tumbuh. Sudah banyak studi kanker yang meneliti marker inflamasi. Namun, di Indonesia masih sangat jarang studi yang mempelajari inflamasi dan kanker nasofaring (KNF) dan membandingkannya pada populasi subjek sehat.

Tujuan Penelitian: Tujuan penelitian ini adalah untuk mengamati perbedaan kadar hs-CRP and TNF- α antara subjek sehat dan pasien kanker nasofaring.

Metode: Desain penelitian ini adalah *case control*. Subjek penelitian adalah pasien/pengunjung yang di rekrut di RSUP Dr. Sardjito (n=78) dan dibagi menjadi 2 grup; sehat (n=39) dan pasien KNF (n=39). Plasma darah pemeriksaan hs-CRP and TNF- α menggunakan *enzyme-linked immunosorbent assay* (ELISA). Perbedaan distribusi variabel dihitung menggunakan analisis *Mann-Whitney*, dan *P-value* ≤ 0.05 ditentukan sebagai perbedaan signifikan secara statistik.

Hasil: Teramati perbedaan usia ($p=0,049$) dan latar belakang pendidikan ($p<0,001$) antara subjek sehat dan pasien KNF. Pasien KNF pada studi ini sebagian besar tergolong pada stadium akhir (80%). Penelitian ini menemukan perbedaan kadar hs-CRP ($p=0,012$) dan TNF- α ($p=0,044$) antara subjek sehat dan pasien kanker nasofaring. Namun, tidak ditemukannya perbedaan kadar hs-CRP and TNF- α antara stadium KNF.

Kesimpulan: Teramati perbedaan kadar hs-CRP ($p=0,012$) and TNF- α ($p=0,044$) antara subjek sehat dan pasien kanker nasofaring yang direkrut di RSUP Dr. Sardjito, Yogyakarta.

Kata Kunci: Kanker Nasofaring (KNF), hs-CRP, TNF- α , Inflamasi, Yogyakarta, Sehat

ABSTRACT

Background: High-sensitivity C-reactive protein (hs-CRP) is the classical acute phase reactant which rises rapidly and extensively in a cytokine-mediated response to tissue injury, infection and inflammation. Tumor Necrosis Factor α (TNF- α) is a pro-inflammatory cytokine secreted by inflammatory cells during inflammation process. Inflammation is often linked to cancer, as the process of chronic inflammation induced more cytokines and chemokines which provides environment for cancer cells to grow even more. There are many cancer literatures studied inflammatory markers in cancer patients. However, studies on inflammation and nasopharyngeal carcinoma (NPC) by comparing it with healthy population, particularly in Indonesia is rare.

Objective: The aim of the study was to observe the differences of hs-CRP and TNF- α levels between healthy subjects and nasopharyngeal carcinoma patients.

Method: This research used case control design. The research subjects were patients/visitors recruited from Dr. Sardjito General Hospital Yogyakarta (n=78) which was divided in to 2 group; healthy (n=39) and NPC patients (n=39). Blood plasma of hs-CRP and TNF- α were measured with enzyme-linked immunosorbent assay (ELISA). Different distribution of variables was analysed with Mann-Whitney, and P-value of ≤ 0.05 was considered as statistically significant.

Result: Differences between healthy and NPC were observed on age (p=0,049) and education (p<0,001). Most NPC patients were on late stage (80%). This study found difference of hs-CRP level (p=0,012) and TNF- α (p=0,044) between healthy subjects and nasopharyngeal carcinoma patients. However, we did not find difference between stage on NPC in both hs-CRP and TNF- α .

Conclusion: Difference of hs-CRP (p=0,012) and TNF- α (p=0,044) levels were observed between healthy subjects and nasopharyngeal carcinoma (NPC) patients recruited in Dr. Sardjito General Hospital in Yogyakarta.

Keyword: Nasoparhyneal carcinoma (NPC), hs-CRP, TNF- α , Inflammation, Yogyakarta, Healthy