

ABSTRACT

NEUTROPHIL RATES ON NASOPHARYNGEAL CARCINOMA PATIENTS PRE AND POST CHEMOTHERAPY

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Background: Nasopharyngeal carcinoma (NPC) is the most common malignant tumor in the head and neck region in Indonesia. Mostly, NPC patients come to the doctor already at the late stage due to the unrecognized symptoms at the earlier stages. The most common cause of NPC is *Epstein-Barr Virus*. Most NPC cases cause the neutrophil rates to increase as an inflammatory response. Chemotherapy is one of the management needed for patients of NPC to suppress the growth of the tumor cells.

Objective: This research aims to study the effect of chemotherapy on the neutrophils rate in the Department of Otorhinolaryngology-Head and Neck Surgery and *Poli Onkologi Satu Atap* Medical Faculty of Universitas Airlangga-Dr. Soetomo General Hospital Surabaya on January-November 2017.

Methods: This study was a t-paired test and analytical retrospective study by assessing patients' medical record.

Results: 30 patients were identified (22 males and 8 females). Most of them were between age 46-51 (23,33%) and 52-57 (23,33%) years old. There are 12 patients found with a smoking habit and 9 patients with salted fish consumption history. Most of the patients were classified as stage IV A (53,33%). Mean of the neutrophil rates pre-chemotherapy I is $6,42 \times 10^3/\text{mm}^3$, meanwhile mean of the neutrophil rates post-chemotherapy III is $2,21 \times 10^3/\text{mm}^3$. In this research also found 10 patients with normal decrease rates of neutrophils, with 12 1st degree neutropenia, 5 2nd degree neutropenia, 3 3rd degree neutropenia and 1 4th degree neutropenia.

Conclusion: There was an effect of chemotherapy on the decreasing level of neutrophil rates in NPC patients.

Keywords: nasopharyngeal carcinoma, neutrophil, chemotherapy