

## HUBUNGAN EKSPRESI Ki-67 DENGAN STADIUM KARSINOMA NASOFARING DI RSUP DR. SARDJITO YOGYAKARTA

### INTISARI

**Pendahuluan** : Karsinoma nasofaring merupakan keganasan kepala leher tersering. Dalam hal keganasan, proliferasi sel tumor tidak terkendali dan terus membelah diri yang menjadi faktor pertumbuhan dari tumor. Protein Ki-67 sering digunakan sebagai penanda untuk mengevaluasi tingkat proliferasi sel karena hanya hadir selama fase aktif siklus sel. Ekspresi Ki-67 yang tinggi sering dikaitkan dengan derajat perkembangan dari karsinoma.

**Tujuan** : Untuk mengetahui hubungan antara ekspresi Ki-67 dengan stadium karsinoma nasofaring di RSUP Dr. Sardjito Yogyakarta.

**Metode** : Penelitian ini merupakan analitik observational dengan rancangan penelitian *cross sectional*. Variabel bebas adalah ekspresi Ki-67 dan variabel terikat adalah stadium karsinoma nasofaring. Analisis bivariat menggunakan uji *chi square* dengan nilai signifikansi  $p < 0.05$  dan interval kepercayaan (IK) 95%.

**Hasil** : Subyek penelitian meliputi 46 pasien karsinoma nasofaring. Mayoritas pasien adalah laki-laki (78.3%), usia  $>50$  tahun (60.9%), stadium lanjut (63%). Ekspresi Ki-67 tinggi (56.5%). Terdapat hubungan yang signifikan antara Ki-67 tinggi dengan stadium lanjut ( $p=0.005$ ), dimana pasien dengan Ki-67 tinggi memiliki peluang mengalami stadium lanjut sebesar 2.02 kali dibandingkan dengan Ki-67 rendah (IK 95% = 1.14 – 3.57).

**Kesimpulan** : Terdapat hubungan yang signifikan antara ekspresi Ki-67 dengan stadium karsinoma nasofaring .

**Kata Kunci** : karsinoma nasofaring, stadium, proliferasi sel, Ki-67

## THE CORRELATION BETWEEN KI-67 EXPRESSION AND THE STAGE OF NASOPHARYNGEAL CARCINOMA AT DR. SARDJITO GENERAL HOSPITAL, YOGYAKARTA

### ABSTRACT

**Introduction:** Nasopharyngeal carcinoma (NPC) is the most common malignancy of the head and neck region. In malignancies, uncontrolled tumor cell proliferation and continuous cell division are key factors contributing to tumor growth. Ki-67 protein is widely used as a marker to evaluate the level of cell proliferation, as it is exclusively expressed during the active phases of the cell cycle. High Ki-67 expression is often associated with the degree of progression in carcinoma.

**Objective:** To determine the correlation between Ki-67 expression and the stage of nasopharyngeal carcinoma at Dr. Sardjito General Hospital, Yogyakarta.

**Methods:** This study employed an analytical observational design with a cross-sectional approach. The independent variable was Ki-67 expression, while the dependent variable was the stage of nasopharyngeal carcinoma. Bivariate analysis was conducted using the chi-square test, with a significance level of  $p < 0.05$  and a 95% confidence interval (CI).

**Results:** The study included 46 patients with nasopharyngeal carcinoma. The majority were male (78.3%) and aged  $>50$  years (60.9%), with advanced-stage disease (63%). High Ki-67 expression was observed in 56.5% of patients. There was a significant correlation between high Ki-67 expression and advanced-stage disease ( $p = 0.005$ ). Patients with high Ki-67 expression had a 2.02-fold higher likelihood of presenting with advanced-stage disease compared to those with low Ki-67 expression (95% CI = 1.14–3.57).

**Conclusion:** There is a significant correlation between Ki-67 expression and the stage of nasopharyngeal carcinoma.

**Keywords:** nasopharyngeal carcinoma, stage, cell proliferation, Ki-67