

**HUBUNGAN KELOMPOK RISIKO PASIEN LEUKEMIA
LIMFOBLASTIK AKUT (LLA) ANAK DENGAN KEJADIAN
CHEMOTHERAPY INDUCED PERIPHERAL NEUROPATHY (CIPN)**

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ABSTRAK

Leukemia Limfoblastik Akut (LLA) merupakan jenis keganasan yang paling sering ditemui pada anak-anak. Pemberian agen kemoterapi berbasis vincristine disesuaikan dengan stratifikasi kelompok risiko prognosis, yaitu kelompok *standard risk* dan *high risk*. Perbedaan karakteristik pasien dan regimen kemoterapi antar kelompok berpotensi mempengaruhi kejadian CIPN.

Tujuan penelitian ini untuk mengetahui adanya hubungan antara kelompok risiko pasien leukemia limfoblastik akut (LLA) anak dengan kejadian CIPN sensoris maupun CIPN motorik.

Metode penelitian rancangan analitik observasional dengan pendekatan kohort retrospektif. Penelitian dilakukan bulan September 2020 hingga Januari 2022 dengan total 47 subjek pasien LLA.

Hasil penelitian didapatkan kelompok *standard risk* mengalami CIPN sensoris (30,0%) dan CIPN Motorik (25%), sedangkan kelompok *high risk* mengalami CIPN sensoris (70,3%) dan CIPN motorik (44,4%). Analisis bivariat menunjukkan kelompok *high risk* memiliki risiko lebih besar terjadinya CIPN sensoris secara signifikan ($RR = 2,35$, $p = 0,006$), namun tidak signifikan pada CIPN motorik ($RR = 1,78$, $p = 0,170$). Analisis multivariat menunjukkan kelompok *high risk*, malnutrisi, dan kadar hemoglobin secara independen mempengaruhi kejadian CIPN sensoris, sedangkan pada CIPN motorik hanya kadar hemoglobin saja yang mempengaruhi.

Kesimpulan penelitian yaitu kelompok *high risk* memiliki risiko lebih tinggi kejadian CIPN sensoris dibandingkan kelompok *standard risk*, tetapi tidak pada CIPN motorik.

Kata kunci: Leukemia Limfoblastik Akut, Chemotherapy Induced Peripheral Neuropathy, kelompok risiko, *high risk*, *standard risk*, pediatri, anak
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RELATIONSHIP BETWEEN PATIENT RISK GROUP OF ACUTE LYMPHOBLASTIC LEUKEMIA (ALL) IN CHILDREN WITH CHEMOTHERAPY INDUCED PERIPHERAL NEUROPATHY (CIPN)

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ABSTRACT

Acute lymphoblastic leukemia (ALL) is the most common malignancy in children. The administration of vincristine-based chemotherapy agents was adjusted according to the stratification of the prognostic risk groups, namely the standard-risk and high-risk groups. Differences in patient characteristics and chemotherapy regimens between groups have the potential to influence the incidence of CIPN.

The purpose of this study is to determine the relationship between the risk groups of pediatric acute lymphoblastic leukemia (ALL) patients with the incidence of sensory CIPN and motor CIPN.

The research method is an observational analytic design with a retrospective cohort approach. The study was conducted from September 2020 to January 2022 with a total of 47 subjects with ALL patients. The results showed that the standard risk group experienced sensory CIPN (30.0%) and motor CIPN (25%), while the high-risk group experienced sensory CIPN (70.3%) and motor CIPN (44.4%). Bivariate analysis showed that the high-risk group had a significantly greater risk of sensory CIPN (RR = 2.35, $p = 0.006$), but not for motor CIPN (RR = 1.78, $p = 0.170$). Multivariate analysis showed that the high-risk group, malnutrition, and hemoglobin levels independently affected the incidence of sensory CIPN, whereas in motor CIPN only hemoglobin levels were affected.

The conclusion of the study was that the high-risk group had a higher risk of sensory CIPN than the standard risk group, but not in motor CIPN.

Keywords: Acute Lymphoblastic Leukemia, Chemotherapy Induced Peripheral Neuropathy, risk group, high risk, standard risk, pediatrics, children

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