

HUBUNGAN KADAR Pb, As, dan Hg DENGAN STATUS GIZI ANAK CEREBRAL PALSY DI KABUPATEN BANYUMAS

ABSTRAK

Cerebral palsy adalah gangguan perkembangan psikomotik akibat lesi otak yang menyebabkan saraf motorik terganggu dan terjadi pada anak sebelum, selama, dan setelah kelahiran. Salah satu faktor risiko penyebab *cerebral palsy* adalah paparan logam berat. Timbal (Pb), arsen (As), dan air raksa (Hg) merupakan logam berat yang mengandung neurotoksik. Pb, Hg, dan As juga dapat mempengaruhi status gizi anak normal maupun anak *cerebral palsy*. Penelitian ini bertujuan untuk mengetahui hubungan kadar Pb, As, dan Hg dengan status gizi anak *cerebral palsy* di Kabupaten Banyumas. Penelitian ini merupakan penelitian observasional analitik dengan pendekatan studi *cross sectional*. Sampel ditetapkan dengan *total sampling* dan didapat sampel sebanyak 24 anak *cerebral palsy* usia 1-12 tahun. Pengumpulan data dilakukan dengan mengisi kuesioner data diri, mengukur tinggi dan berat badan, serta memotong rambut anak untuk dilakukan pemeriksaan dengan spektrofotometer serapan atom (SSA). Data yang diperoleh dianalisis menggunakan uji *Spearman*. Karakteristik data yang diperoleh berdasarkan jenis kelamin didapatkan mayoritas laki-laki (54,2%) dan berdasarkan usia paling banyak berusia 6-12 tahun (70,8%). Uji statistik menunjukkan kadar timbal ($p = 0,716$) tidak berhubungan dengan status gizi anak *cerebral palsy* di Kabupaten Banyumas. Hasil uji statistik kadar arsen ($p = 0,681$) tidak berhubungan dengan status gizi anak *cerebral palsy* di Kabupaten Banyumas. Uji statistik kadar air raksa ($p = 0,453$) menunjukkan tidak ada hubungan dengan status gizi anak *cerebral palsy* di Kabupaten Banyumas.

Kata kunci: *cerebral palsy*, kadar timbal, kadar arsen, kadar air raksa, status gizi.

**THE RELATIONSHIP BETWEEN Pb, As, AND Hg LEVELS WITH THE
NUTRITIONAL STATUS OF CEREBRAL PALSY CHILDREN IN
BANYUMAS REGENCY**

ABSTRACT

*Cerebral palsy is a psychomotoric developmental disorder due to brain lesions that cause impaired motor nerves and occurs in children before, during, and after birth. One of the risk factors for cerebral palsy is exposure to heavy metals. Lead (Pb), arsenic (As), and mercury (Hg) are heavy metals that contain neurotoxic. Pb, Hg, and As can also affect the nutritional status of normal children and cerebral palsy children. This study aims to analyze the association between Pb, As, and Hg levels with the nutritional status of cerebral palsy children in Banyumas Regency. This study was an observational analytic study with cross-sectional study approach. The sample was determined by total sampling and obtained samples as many as 24 cerebral palsy children aged 1-12 years. Data collection was carried out by filling out personal data questionnaires, measuring height and weight, and cutting children's hair for examination with an atomic absorption spectrophotometer (SSA). The result were analyzed with Spearman test. The characteristics of the data based on gender, majority were male (54.2%) and based on age, majority were 6-12 years old (70.8%). Statistical tests showed that lead levels ($p = 0.716$) were not related to the nutritional status of cerebral palsy children in Banyumas Regency. The results of statistical tests of arsenic levels ($p = 0.681$) were not related to the nutritional status of cerebral palsy children in Banyumas Regency. Statistical test of mercury levels ($p = 0.453$) showed no relation with the nutritional status of cerebral palsy children in Banyumas Regency. **Keywords:** cerebral palsy, lead level, arsenic level, mercury level, nutritional status.*