

ABSTRACT**CORRELATION ANALYSIS OF ADIPONECTIN LEVEL ON WEIGHT CHANGES
IN EPILEPTIC CHILDREN WITH VALPROIC ACID MONOTHERAPY
(Study at Polyclinic Neurology and Pediatric Airlangga University Hospital and Ngudi
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BACKGROUNDS – A seizure is defined as an abnormal, disorderly discharging of the brain's nerve cells, resulting in a temporary disturbance of motor, sensory, or mental function. Long-term antiepileptic drugs (AEDs) remain the mainstay of epilepsy treatment and may cause unwanted side effects in some people. The pharmacological treatment for the management of epilepsy in children includes first generation AED (Valproic acid). Among the side effects of VPA, weight gain is frequently reported between 10% and 70%. The mechanism through which valproic acid may induce a weight gain is still unclear. VPA induced overweight was associated with lower adiponectin levels. Adiponectin pathway may be one of the factors leading to weight gain in patients.

OBJECTIVES – to analyze the correlation between adiponectin level on weight changes in epileptic children with valproic acid monotherapy.

METHODS – this prospective observational study recruited children aged 2-17 years on valproic acid monotherapy less than 2 years from polyclinic neurology and pediatric airlangga university hospital and ngudi waluyo wlingi blitar hospital from April 2019 to June 2019. The weight was measured and blood sample was taken at the time patient control and following after 1 month.

RESULTS – Weight gain was reported on 76,4% patients. The mean weight was significantly higher ($p < 0,05$) after following 1 month (post) than before (pre) with mean 1,18 kg. The pre and post adiponectin levels measured using the ELISA method did not differ significantly ($p = 0,619$). The correlation between changes in body weight and changes in adiponectin levels was used spearman rho correlation test and the results were not significantly associated ($p = 0,704$, $r = -0,100$) but there was correlation between body weight with adiponectin level in pre and post.

CONCLUSIONS – The correlation between changes in body weight and changes in adiponectin levels were not significantly associated but there was correlation between body weight with adiponectin level.

KEYWORDS : Adiponectin levels, Body weight, Epileptic children, Valproic acid.