

ABSTRAK**Analysis of Correlation of Blood and Urin Testosterone and Its Role on the Enforcement of Diagnosis in Women with Polycystic Ovary Syndrome****M.A. HANNY FERRY FERNANDA**

One of the main criteria for PCOS diagnosis in women is the excess of androgen hormone. Testosterone is one of the most important androgen hormones secreted into the blood. During this time, analysis of testosterone levels in PCOS patients is rarely done because a patient's blood sample is needed. Detection of testosterone in urine is very likely to support the diagnosis of PCOS, but it is necessary to prove the correlation between testosterone levels in the blood and its role in supporting the enforcement of PCOS diagnoses. This study was conducted observationally with a diagnostic test approach in 30 women who had PCOS. The serum and urine of the woman were analyzed for testosterone levels using the ELISA method. Testosterone levels in serum from 30 women with PCOS showed higher values than testosterone levels in urine with values of 8.067 ± 11.470 nmol / L and 2.688 ± 0.688 nmol / L, respectively. Spearman correlation test results showed that there was a correlation between serum and urine testosterone levels in women with PCOS with a correlation value of 0.39 at significance $p < 0.05$ and the role of urine testosterone levels for determination of PCOS patients with hyperandrogen at a cut off value of 2.6010 nmol / L with sensitivity and specificity of 0.625 and 0.571.

Keywords: Serum testosterone, urine testosterone, Polycystic ovary syndrome, ELISA