B-03  Levels of estrogen, progesterone and expression of ER $\beta$
on severity of Minor RAS

Utami S$^1$, Auerkari El$^1$, Rahardjo TBW$^2$, Baziad A$^3$, Hamdani C$^4$

$^1$Department of Oral Biology, $^2$Department of Prosthodontic, Faculty of Dentistry, University of Indonesia
$^3$Department of Obstetrics Gynecology, $^4$Department of Anatomy Pathology,
Faculty of Medicine, University of Indonesia

Objectives: The aim of this study was to examine the levels of blood estrogen and progesterone and detection of expression of ER $\beta$ in oral mucosa in female with the severity in the Minor RAS. Methods: The subjects were 42 women (17-40 years old) with Minor RAS without hormonal therapy or hysterectomy to see the levels of estrogen and progesterone blood. Detection of expression of ER $\beta$ in oral mucosa of was carried out in 26 out of 42 subjects. We were investigated to see whether the severity pain correlated with condition of onset, recurrence, site and amount of lesions. Blood was taken on the 21st-22nd of menstruation cycle for estrogen and progesterone levels by microparticle enzyme immunoassay and competitive radioimmunoassay, respectively. Detection of expression of ER $\beta$ in oral mucosa by using Immunocytochemistry. Results: Analysis of the data showed there was no significant relation between estrogen level with $p=0.530$ and progesterone level with $p=0.717$ and expression of ER $\beta$ with $p=0.163$ to the severity of Minor RAS. Conclusions: There is tendency of normal estrogen level (62.5%) and the progesterone level tends to be low (61.3%), and negative expression of ER $\beta$ (70%). It is assumed that the low level of progesterone and normal level of estrogen cause hormonal imbalance. It is assumed that negative expression of ER $\beta$ causing the response of proliferation, differentiation and impaired cell growth, and makes oral mucosa more vulnerable to RAS.

Keywords: Minor RAS, estrogen, progesterone hormone, ER $\beta$