The correlation between malondialdehyde concentration level in seminal fluid analysis and asthenozoospermia among infertile males

Debora Roselita Karo Sekali
University of Indonesia, Indonesia

In Indonesia, approximately 20% of couples are infertile and 40% of the cases caused by male infertility. Impaired sperm motility (asthenozoospermia) is the leading cause of inability to conceive after regular unprotected sex in one year. Reactive Oxygen Species (ROS) is associated with male reproductive health. However, biochemical analysis on infertile males are rarely done in a clinical practice and WHO laboratory manual ranges of seminal fluid characteristic can be different in various races and ethnicities. Objective of this study is to compare malondialdehyde concentration as an indicator of ROS level in seminal plasma between normozoospermia and asthenozoospermia and to find the correlation between level of malondialdehyde and sperm motility among infertile males. Case control study analyzes 15 asthenozoospermic males and 20 normozoospermic males’ seminal plasma in a fertility clinic in Jakarta. Thiobarbituric acid assay is used to measure the concentration of malondialdehyde. Mann-Whitney test shows, there is no correlation between concentration of malondialdehyde and asthenozoospermia p value=0.194. However, average of malondialdehyde concentration in normozoospermia is lower than in asthenozoospermia. The future research with the same topic should be done by choosing fertile men as the control group and by taking minimal two samples for each subject since the population variances are unequal.

Biography
Debora Roselita Karo Sekali has completed her Bachelor in Medical Science from Universitas Indonesia in 2016. She is currently pursuing her Honors Degree in Research of Reproductive Physiology of Women with prolonged labor in Monash University, Australia.

debora.rose@yahoo.com