

SUMMARY

The Role Of Zinc And Retinol To The T-Lymphocytes And Ig G Cells Activities Toward Tubercular And Non Tubercular Children

Tuberculosis keeps becoming the health biggest problem in the worldwide and becomes one of the biggest death causes occurring in the developing countries. Indonesia posits the third of tuberculosis cases in the worldwide after India and China. The cell immune system is an important part of TBs' spreading infection, because it will be judged whether the person who is infected by TB bacterium able to prevent the growth of bacterium itself or the bacterium are already developed to a disease. Zinc plays an important part in the immune system, from the skin barrier up to the the regulation system in the lymphocytes.

Zinc is required to the normal development of non-specific immune system which is mediated by neutrophil, the natural killer cell (NK Cell) and the specific development of immune system itself called the growth and development function of T-lymphocytes. Vitamin A has an affection on the humans' immune body function which is certainly specific unknown mechanism yet. Retinol seems to affect on the development and B-lymphocytes differential (leucocytes that act in the humoral immune process). The lack of vitamin A decreases the antibody responses that depends on the T-cell (lymphocytes that acts on the cell immune process). Basically, Vitamin A plays an important part on the immunity function.

This study used an observational analytic that was conducted in terms of action. The model used in this study was comparison study. This study applied design Cross sectional which the data was collected at the same time in a certain time. The sampling technique of this study was simple random sampling technique.

This study was conducted at RSUD Sidoarjo by taking the sample of 11 tubercular children and 11 non-tubercular children. Based on the study above, this was obtained that the average level of zinc with the significance value was 0.000, level of T-lymphocytes significance value was 0.000, level of retinol significance level was 0.000. and level of IgG significance was 0.006. The level of zinc, retinol and Ig G on tuberculosis children were lower than non TB children, but T-lymphocytes on TB children was higher than non TB. It suggested to give education, communication and information to the parent of TB children focused on consumed good nutrition.

ABSTRACT

The Role Of Zinc And Retinol To The T-Lympocytes And Ig G Cells Activities Toward Tubercular And Non Tubercular Children

Zinc and vitamin A were very important in the human immune system, from the skin barrier up to the the regulation system in the lymphocytes. Zinc was required to the normal development of non-specific immunity system which were mediated by neutrophil, the natural killer cells and the specific development of immune itself called the growth and development function of T-lymphocytes. This study used an observational analytic method cross sectional design. The sampling technique of this study was simple random sampling. This study was conducted at RSUD Sidoarjo by taking the sample of 11 tuberculosis children and 11 non-tuberculosis children. Based on the study above, this was obtained that the average level of zinc with the significant value was 0.000, level of T-limphocytes significant value was 0.000, level of retinol significant level was 0.000. and level of IgG significant was 0.006. The level of zinc, retinol and Ig G on tuberculosis children were lower than non TB children, but T-limphocytes on TB children was higher than non TB. It suggested to give education, communication and information to the parent of TB children focused on consumed good nutrition.

Key words: Zinc Serum, Retinol, T-lyphocyte, Imunoglobulin G, Tuberculosis