



Vitamin D Deficiency among Geriatrics : mechanism, implication and therapy

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Vitamin D has an essential role in calcium-phosphorus metabolism and regulation of parathyroid hormone (PTH), thus maintaining bone integrity through mineralization and inhibit degenerative process (osteoporosis) and fractures. Various trials and observational studies demonstrate vitamin D effect in reducing cancer risk, infectious and autoimmune diseases, and cardiovascular disease.

However, deficiency in vitamin D is common and the prevalence is expected to reach over one billion people worldwide. In elderly, deficiency is frequently diagnosed in geriatric outpatients and the housebound. Deficient status is diagnosed if serum 25-hydroxyvitamin D [25-(OH)D] < 20 ng/mL (50 nmol/L), where as 21-29 ng/mL (52 to 72 nmol/L) is considered to be vitamin D insufficiency.

This article elucidates and discusses subtle distinctions in vitamin D-deficiency and/or insufficiency therapy for elderly in comparison to children and adults.

Keywords: Deficiency, vitamin D, mechanism, implication, therapy, elderly.

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Effect of Angkak on Total Blood Cholesterol Level in White Mice (*Rattus norvegicus*)

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Red yeast rice is a product of rice fermentation with various strains of *Monascus purpureus* yeast. Red yeast rice contains monakolin K, phytosterol, PUFA, fiber and niacin.

Those substances are believed as a lowering total blood cholesterol agent. This research is to study the effect of red yeast rice on total blood cholesterol levels in *Rattus norvegicus*.

This study was an experimental research design, used posttest-only control group design. Subjects of research were *Rattus norvegicus*, Wistar strain, male, 3 months, 200 grams. By random sampling technique, data were collected from 35 *Rattus norvegicus*.

Using sign test with $\alpha=0.05$, it is concluded that the effect of red yeast rice in lowering blood total cholesterol level is significant.

Key words: red yeast rice, total blood cholesterol levels, *Rattus norvegicus*.

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Potency of Coconut Water and Coconut Milk as Sea-water Fish Poison Neutralizer

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Sea water fish such as Tongkol and Kembung can contain more than 100 ppm histamine that can be poisonous.

This study used coconut water and coconut milk which contain albumin as neutralizer. Such compound can kill histidine bacteria, preventing histamine production. Other components of coconut water are growth elements, trace elements, carbohydrate, and small amounts of vitamins.

Results indicated that sea water fish treated with coconut water and coconut milk still have bacteria and non pathogenic fungi. However, its histamine content was below threshold (25 ppm). After treated with coconut water and coconut milk, Tongkol contained 11,99 ppm and 11,39 ppm of histamine, and Kembung contained 9,43 ppm and 9,30 ppm of histamine.

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