

The Potency of Sandfish (*Holothuria scraba*) Flesh Powder to Improve Reproduction Quality of Man

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Abstract : Especially coastal, Indonesian and Chinese communities have utilized sandfish to improve reproduction quality of men. This study aimed to examine the nutrition on sandfish flesh that has the potency to improve reproduction quality of men. The materials used were sandfish with weight of 200-500 g, and then analysis of proximate, analysis of amino acid, analysis of fatty acid and analysis of mineral contained in the sandfish were performed. The results showed that protein content (39.96%) was the main component of the flesh; the carbohydrate and fat were 25.43% and 4.18%, respectively. Sandfish powder contains several essential amino acids and nonessential amino acids. Nine of ten amino acids needed by human body are contained in sandfish powder, i.e. arginine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, tryptophan, threonine and valine; only tryptophan that are not contained in sandfish powder. Sandfish powder contains saturated fatty acid kaproat, kaprilat, kaprat, laurat, miristat, stearat, arakhidat and behenat; monosaturated fatty acids (MUFA) and polyunsaturated fatty acids (PUFA). MUFA is composed of fatty acid oleat, while PUFA is composed fatty acid omega 3 (linonenat, eicosapentaenoic acid and docosahexaenoic acid) and omega 6 (linoleat and arakhidonat). The minerals contained in sandfish powder are macrominerals and microminerals. Based on the findings, the nutrition in sandfish powder has a good potency to improve reproduction of men, especially PUFA for the maturation of spermatozoa, zinc for production function and spermatogenesis, motility of spermatozoa, acromoson reaction; Mg for transformation of genetic information and motility of spermatozoa; calcium for spermatogenesis, capacity and fertilization of spermatozoa. Thus, sandfish flesh powder has the potency to improve reproduction quality of men.

Keywords : sandfish flesh powder, nutrition, reproduction quality, men

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