Role of Cod Liver and Primrose Oil In Glucocorticoids Induced Osteoporosis in Adult Female Rats.

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Abstract

This study was carried out to study the functional role of fatty acids from cod liver oil (n-3) and primrose oil (n-6) on bone health using osteoporosis of adult female rats. Forty-eight female albino rats of Sprague-Dawley strain weighing approximately 200 ± 10 gm were divided into, first group as a (-ve control), while second group were injected with glucocorticoid to induced osteoporosis. After osteoporosis was ensured rats were divided into, first subgroup as a (+ve control); group treated with vitamin D + ca., while the other groups were supplemented with cod liver oil or primrose oil at 10 or 20% / total kcal. and n-3 : n-6 at 50 : 50 % ratio. Results revealed that administration of cod liver oil and primrose oil had significantly increased (p < 0.05) in BWG, FI and FER compared with osteoporotic group. Moreover, results showed significant improvement in the most tested parameters in groups received cod liver oil at 20% of and ratio of n-3 : n-6. So that this study recommended to dietary consumption of cod liver oil and primrose oil as a method for prevention of osteoporosis.

Keywords: cod liver oil, primrose oil, osteoporosis, fatty acids, n-3, n-6, albino rats, body weight, BMD, blood samples.
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References:


