Relationship Knee Osteoarthritis Grade and Serum Cholesterol Level in North Sumatera

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Abstract : Background : Several studies have shown a clear association with obesity, age, gender and osteoarthritis, however the   role of cholesterol is unclear. The aim of this study was to determine whether serum cholesterol level were associated with the grade of knee osteoarthritis.

Methods : Plasma levels of total cholesterol, triglycerides, low density lipoprotein, high density lipoprotein were measured in 47 knee osteoarthritis. Knee osteoarthritis were defined using Kellgren-Lawrence grading scale.

Results : There were 40 females (85.1%) and 7 males (14.9%) with a mean of age 61.38 ± 10.43 years respectively. Subject with osteoarthritis correlated with gender male/female, grade I 4(0/10), grade II 11(14.3/25), grade III 14(28.6/30), grade IV 18(57.2/35) averaged 2.8 ± 0.98. There was no significant correlation between level of total serum cholesterol, triglycerides, low density lipoprotein, high density lipoprotein and knee osteoarthritis grade.

Conclusions : In conclusion all the lipid and lipoprotein that observed in knee osteoarthritis radiograph have no relationship with its grade.

Keywords : lipid, lipoprotein, osteoarthritis.

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