KSN 2020
FULLY VIRTUAL MEETING

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The Effect of Non-Decaffeinated Coffee and and Decaffeinated Coffee After Induction of High-Purine Diet on Renal Superoxide Dismutase (SOD) Levels in The Hyperuricemic Rats (Rattus norvegicus)

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Objectives: Nowadays, hyperuricemia is often associated with various diseases including renal diseases. Coffee is a beverage that is known to have an effect in reducing uric acid levels, but there are no studies prove that the decrease in uric acid levels comes from the caffeine content in coffee. Superoxide Dismutase (SOD) is one of the main intracellular antioxidant, so it can be used as defence mechanisms parameter. So this study aims to compare the effects of non-decaffeinated coffee and decaffeinated coffee on renal superoxide dismutase (SOD) levels in the hyperuricemic rats (Rattus norvegicus).

Methods: This research used 24 male Wistar strain rats aged 1-2 months with BW of 100-150 grams. Rats were divided into four groups. All groups were given fed ad libitum for 1 month. The first group was given given 700 mg/kg BW/day of beef broth (high-purine diet), the third group was given 700 mg/kg BW/day of beef broth + 144 mg/200 g BW/ day of non-decaffeinated coffee, and the four group was given 700 mg/kg BW/day of beef broth + 144 mg/200 g BW/ day of decaffeinated coffee, while the second group was only given fed ad libitum. At the end of the research, rats were terminated. SOD levels on renal were measured. ANOVA with bonferroni post-hoc test was used in statistical analyzing.

Results: The mean of SOD (%) in G1, G2, G3, and G4 consecutively were 70.22 ± 2.41, 23.50 ± 4.60, 43.99 ± 5.43, and 59.84 ± 3.98. The result shows that non-decaffeinated coffee and decaffeinated coffee are both effective in increasing renal SOD levels, so the decrease in uric acid levels is not caused by the caffeine content in coffee.

Conclusions: Both have a significant effect in decreasing uric acid levels and increasing SOD levels, so it is not caused by the caffeine content in coffee.

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A Case of IgG4-related kidney disease with membranous proliferative glomerulonephritis, presenting renal pelvic mass

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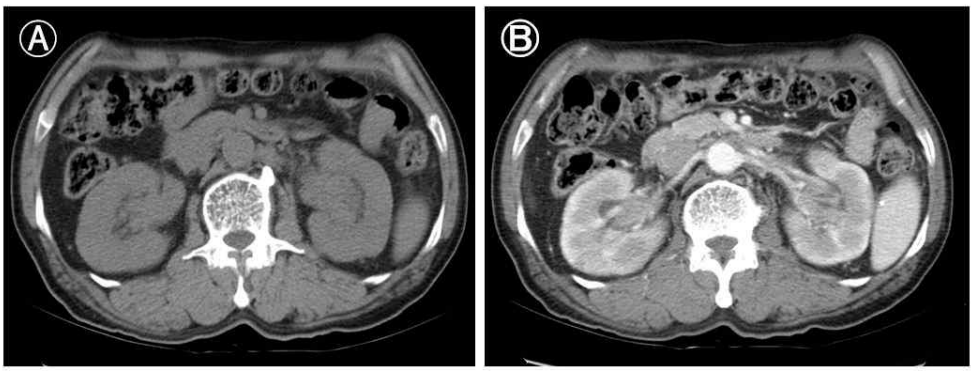
Case Study: Immunoglobulin G4(IgG4)-related disease is a chronic immune-mediated fibro-inflammatory disorder, characterize by multiple organ infiltration with IgG4-positive plasma cells, storiform fibrosis and obliterative phlebitis or tumefactive lesions. As increasing the case reports of IgG4-related kidney disease, the clinical manifestations, pathologic and radiologic findings have been more clarified. But it is sometimes misdiagnosed as it mimics malignancies. We report a case of a 77-year-old Korean man, diagnosed IgG4-related kidney disease with membranous proliferative glomerulonephritis, presenting a renal pelvic mass suspected of being malignant.

Computed tomography of the abdomen



The kidney biopsy findings