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The effect of resveratrol therapy on serum total sialic acid and lipid-bound sialic acid in male rats with chronic fluorosis

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Fluor is strongest electronegative element, a potent anion and cumulative toxin. This study was designed to evaluate the effect of resveratrol on serum total sialic acid (TSA) and lipid bound sialic acid in the rats chronically exposed to fluoride. The study was administered using 32 male Sprague Dawley rats weighing 200-250 g. Rats were divided into four groups (n=8/group). Group I comprised the control group, group II was treated with NaF (10 mg/lt/day), group 3 was treated resveratrol (50 mg/lt/day) and group IV was treated NaF+resveratrol for 90 days period. Total sialic acid (TSA) and lipid-bound sialic acid (LSA) were determined using spectrophotometric method. As a result of the analysis, It was seemed that LSA level compared with the control group increased in NaF group ($p<0.05$). On the other hand the resveratrol group was also significantly lower than the NaF group regarding LSA and TSA levels ($p<0.05$ and $p<0.01$ respectively); whereas, the resveratrol + NaF group was significantly higher than the resveratrol group regarding TSA levels ($p<0.05$). Results from this study suggest that resveratrol may be partially effective in preventing the negative effects of fluorosis in male rats.

Biography

Hulya Ozdemir has completed her PhD in Faculty of Medicine. She is working as a Professor at the Medicine Faculty of Yuzuncu Yil University. She is the head of department of Pharmacology and Toxicology. She has published more than 70 papers and her research areas are mainly with plant therapy on the diabetes and cancer diseases, antioxidants and behavioural pharmacology.

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