

4th World Summit on **O**BESITY AND **W**EIGHT **M**ANAGEMENT

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Antioxidant property of a Dietary supplement of moringa oleifera leaves and pleurotus ostreatus in wistar rats subjected to forced swimming endurance test**F. Corka Kane***University of Yaounde I, Cameroon*

Statement of the Problem: The antioxidant property of Moringa oleifera leaves and Pleurotus ostreatus on swimming performance and related biochemical parameters were investigated in thirty adult male and female wistar rats. The purpose of this study was to evaluate the antioxidant property of M. oleifera and P. ostreatus mixture in specific proportions in wistar rats. **Methodology & Theoretical Orientation:** The mushroom species and M. oleifera leaves was cultivated at the biotechnology laboratory of the University Cheikh Anta Diop de Dakar, Senegal. Oxidative stress in rats was induced by swimming. The dietary supplement was composed by mixture of powders of Moringa oleifera and Pleurotus ostreatus in 2:1 ratio. Three groups received different doses of dietary supplement 500 mg/kg, 1000mg/kg, and 1500mg/kg, with one group being the stressed and the other the control group. Parameters in serum such as serum glutamyl oxaloacetate transaminase, serum glutamyl pyruvate transaminase, albumin, Testosterone, creatinine and, oxidative stress parameters (catalase, reduced glutathione, and malondialdehyde) were measured.

Findings: The dietary supplement has an effect on oxidative stress because it increases the activity of catalase and the level of cellular glutathione in rats. The 500 mg/kg dose would be the most appropriate dose for stressful conditions. The 1000 mg/kg dose would be the most appropriate dose for liver damage.

Conclusion & Significance: This study shows that the antioxidant properties of M. oleifera leaves and Pleurotus ostreatus are demonstrated by their ability to improve body energy stores and tissue antioxidant capacity. The dietary supplement of M. oleifera leaves and P. ostreatus powders mixture could be good for stressful conditions.

Biography

Fatou Corka KANE, is a young woman scientist who is very involved in the development of our local resources, hence her interest in studying the therapeutic effects of certain plants, including moringa and edible mushrooms. At the same time, she is also conducting other studies on the typology of food systems in Senegal. Apart from her research and consultancy activities in Senegal and in the sub-region, Fatou KANE is very active in development as she represents the NOODLES association in Senegal. NOODLES are a non-profit association whose objective is to raise awareness and train vulnerable populations on issues related to food safety.