The antioxidant effects of mushroom extracts in boosting immune system in mammals using albino rats as a model

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Mushrooms have been widely used as medicine in the treatment of several infections and also boosting the immune system. The present study was carried out to ascertain the haematological and the antioxidants properties of aqueous extracts of Agaricus bisporus and Pleurotus tuber-regium. Twenty five albino rats were grouped into five, each group consisting of five rats. Group A served as the control, group B to D were fed with Pleurotus tuber-regium 400mg, 600mg and 1000mg concentration respectively while group E was fed with 400mg of Agaricus bisporus. On completion of the administration of extracts, the haematological profiles and antioxidant parameters were analysed. The experimental rats showed some little significant increase in both the haematological profile and biomarkers properties with P<0.05, Generally the haematological profiles implies that there was no significant decrease in the level of the experimental rats immunity and also some organs such as the liver and the kidney were intact. SOD, CAT, GSH and MDA are antioxidant enzymes measured to detect toxic consequences of oxidative stress in mammalian systems. They are cellular and enzymatic defenses against oxidative stress. Oxidative stress causes toxic and adaptive responses within a cell. The importance of an antioxidant defenses in protecting cells and organisms from oxidative damage and toxicity. Further research with higher dosage of the extracts may be required to test on laboratory rats before providing the true haematological and antioxidant properties.

Biography

Odunlade A K completed his PhD in Animal Biotechnology from Federal University of Agricultural, Abeokuta Ogun State, Nigeria. He is the Head of section of Environmental Biology Unit of the Department of Biological Science, Yaba College of Technology, Yaba Lagos, Nigeria. His areas of specialization are in Animal biotechnology, Reproductive Genetics and Environmental management. He has attended both local and international conference in his area of specialization, also he has published in some reputable journals of learning both locally and internationally. He has attended series of Workshop on Animal Biotechnology both locally and internationally.He has supervised a lot of student’s projects and seminar and Co-supervisors. He is a member of Biotechnology society of Nigeria. Genetics society of Nigeria and Member of international Research and Development institute. He has also been an external examiner to some institution of higher learning and paper reviewer.

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