



Role of Natural Sources of Antioxidants in Reducing ROS-Related Ageing

Akshay Malhotra, S. Krishna Sundari *

Department of Biotechnology, Jaypee Institute of Information Technology, A-10, Sector-62, Noida-201307, Uttar Pradesh, India

Address for Correspondence: S. Krishna Sundari; krishna.sundari@jiit.ac.in , akshay.malhotra9210@gmail.com

ABSTRACT: The cellular system may have an imbalance between the oxidants and anti-oxidants, simply caused either by decreased antioxidant defense system or an increased production of Reactive Oxygen Species (ROS). The ROS over production leads to conditions of oxidative stress. The present review discusses how ROS play a major role in triggering / accelerating processes related to early ageing. ROS were found to be capable of damaging mitochondrial DNA, proteins and lipids, leading to mitochondrial dysfunction which ultimately results in either apoptosis or activation of certain degenerative diseases. Pathways like IGF-1 Signaling and TOR allow an increase in the longevity of an organism. There are evidences that IGF-1 signaling plays an important role in regulating ageing at hormonal level. Ageing is also genetically associated to expression of few genes such as *Klotho* and *p66shc*, those that are capable of lowering down the percentage of ROS inside the body and regulating certain biological pathways that can directly or indirectly regulate the process of ageing, delaying various age-associated problems. There are certain plants like *Ginkgo biloba*, Milk Thistle and Green tea those not only have medicinal values but also considered as anti-ageing plants. These plants have a source of some natural phytochemicals which have anti-oxidant properties resulting in reduces the amount of reactive oxygen species by detoxifying them. Current review debates on the importance of considering natural sources of antioxidants to delay the onset of ageing. © 2014 iGlobal Research and Publishing Foundation. All rights reserved.

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