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Regenerative potential of some natural products: Implications in health and diseases

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Regenerative therapy is very promising approach, but should not be limited to stem cell transplantation as its applications are restricted by number of limitations; and should instead seek for a strategy that retrieves the initial healing capacity of a tissue. In this regard, endogenous activation of stem cell recruitment and their homing into the injury sites is a promising approach for therapeutic purposes. We have previously shown that Avemar and *Echinacea* effectively induce mobilization and homing of CD34⁺ stem cells to myocardial tissue and modulate the pro-inflammatory cytokines which may help in the repair of cardiomyocytes. They might be taken as prophylactic or as adjuvant therapy in those individuals at high risk to develop MI, as well as in MI patients. Our study offers novel insights into the extraordinary regenerative capacity of natural products. This study can be extended to encompass other natural products and their effects on degenerative diseases. So, evaluation of their implications in health and diseases is an urgent need as the number of patients with preventable degenerative diseases is growing. This review will discuss how can we select and use them efficiently. It will also update our present knowledge about the potential benefit of specific dietary interventions combined with specific natural products as non-pharmacological tool for preventing and combating such degenerative disorders. Some terms relevant to stem cell biology like cell tolerance, resistance, adaptation and behavior need to be redefined.

Biography

Samar Hassab-Allah Kassem has completed his PhD in Biochemistry from Helwan University. She has got 3 diplomas in Nutrition, Laboratory Analysis and Education. She is a Lecturer of Biology, Biochemistry and Ecology at the 6 October University, Egypt. She has worked as an Associate Professor of Health Science, Biochemistry and Nutrition at Dammam University, KSA (2012-2013). She was responsible for designing the Strategic plan for Faculty of Physical Therapy and was Ex-director of Community Service at the Faculty of Physical Therapy. She has published 8 papers in local and international journals and has been invited for Board Membership in Clinics on Oncology, USA.

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