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CONTENTS

	patients were shifted to MST alone and 210 patients received combined therapy. At 8-W evaluation, MST alone significantly reduced pain scores with tolerable side effects in 156 patients, while 42 patients developed side effects so MST dose was reduced by 50% and at 12-W pain scores were changed non-significantly but side effects became tolerable. Combined therapy significantly reduced pain scores with tolerable side effects of both drugs in 145 patients, 39 patients developed aggravation of AD-related side effects that was stopped and patients were maintained on MST alone and 26 patients complained of MS-related side effects, but responded to 50% reduction of MST dosage. At 12-W, 119 patients were maintained on AD only, 237 patients on MST alone and 171 patients were maintained on combination of both. Conclusion: MST as initial chronic pain therapy provided significant reduction of pain severity with dose-dependent side effects, while AD are not advocated as initial therapy for unpredictable therapeutic effect and high frequency of side effects and if mandatory it must be combined with MST. [Ahmed Mustafa, Mohamed El- Sonbaty, Ahmed Saad, Hany EL Kady. Morphine Sulphate Tablets for Chronic Pain Management: A Prospective Comparative study versus Anti-depressant. Stem Cell. 2010;1(2):5-11] (ISSN 1545-4570). http://www.sciencepub.net	
3	**Evaluation Of The Effects Microcurrent In Saccharomyces Cerevisiae As An Experimental Biological Model** Souza, A. R. [3], Cardoso, M.E.O. [3] , Braga, I.G. [3], Albuquerque, A. C. [3], Almeida, S. T. P. [3], Ferreira, M. J. C. [3], Fernandes, G. L. T [3], Camacho, A. C. L. F. [3], Lima, R. C. [3], Almeida, A. C. C. [3], Mattos, I M. M. [3], Duarte, R. M.[3], Nascimento, S. F. [3], Framil R. A.[3], Borba, H .R. [1] , Diré, G. F. [1,2,3,4] [1]Universidade Federal Rural do Rio de Janeiro, Instituto de Biologia, Departamento de Biologia Animal, Laboratório de Atividade Anti-helmíntica de Plantas. Seropédica, Rio de Janeiro, RJ, Brazil. [2]Centro Universitário da Zona Oeste- UEZO, Avenida Manuel Caldeira de Alvarenga, 1203. Campo Grande, RJ 23070-200, Brazil. Telefone/Fax: 2415-8392; e-mail: gdire@hotmail.com [3]Universidade Estácio de Sá. Centro de Ciências da Saúde. Rio de Janeiro, RJ, Brazil. [4]Instituto Federal de Educação, Ciência e Tecnologia do Rio de Janeiro, Maracanã, Rio de Janeiro, RJ, Brazil. Address: Rua Senador Furtado, 121, Maracanã − Rio de Janeiro, CEP: 20270-021. telephone number: +55(21) 3978-5902. E-mail: gdire@hotmail.com **ABSTRACT: Objective:** The *Saccharomyces cerevisiae,* a species of yeast, is used as a model of study for several types of purposes, exceeding then, as a model of biological application to the glucose human metabolism. The microcurrent can produce the lesser amount of measurable electric chains with similar and compatible electric signals to the electromagnetic field of the human body when these are recovering from tissue injury or has disruption of its normal electric activity. Also, it would stimulate a metabolic alteration to the point where it produces significant amounts and until the modulating of energy in the form of Adenosine Triphosfate - (ATP). The goal of this study was to evaluate the effect of the microcurrent through the parameters of the absorbance and pH in the metabolism of the glucose to explore the human similarities and the capacity of inquiry that the Saccharomyces cerevisiae supplies. **Methods:** One of the methods of glucose determination in used liquid samples more in the world and widely used in assays biochemists of dosage of reducing sugars and for studies of kinetic enzymatic is of the acid dinitrosalicylic (DNS), discovered in the end of the decade of 50 (Miller, L., 1959). The pH measurements have been performed in the chemistry from the very beginning; in this case it was used for H^+ detection and the pH measured correlated to the total glucose concentration present in the sample. First, we apply the microcurrent of three distinct intensities in liquid samples of saccharomyces; later the glucose for the metabolization was added. Second, we submit the samples for the analysis of the absorbance and pH for possible verification of the metabolization of the glucose and evaluation of the results. **Results:** In this study, it could be observed that the treatment, depending on the intensity of the applied microcurrent, caused an increase of the absorbance and pH when observed for the intensities of 100µA, 500µA and 900µA, showing that the cells had absorbed little glucose. **Conclusion:** From the analysis of the acquired results, it can be suggested that the evaluated microcurrent is capable of modifying the glucose and calcium captation in the leavenings with the	Full Text

	increase of the absorbance and pH. [Souza, A. R., Cardoso, M.E.O., Braga, I.G., Albuquerque, A. C., Almeida, S. T. P., Ferreira, M. J. C., Fernandes, G. L. T, Camacho, A. C. L. F., Lima, R. C., Almeida, A. C. C., Mattos, D. M. M., Duarte, R. M., Nascimento, S. F., Framil R. A., Borba, H .R., Diré, G. F. **Evaluation Of The Effects Microcurrent In Saccharomyces Cerevisiae As An Experimental Biological Model.** Stem Cell. 2010;1(2):12-17] (ISSN 1545-4570). http://www.sciencepub.net.	
4	**Transdifferentiation** Yang Yan, Ma Hongbao Brooklyn, New York 11212, USA. jenny20082008@gmail.com **Abstract:** Transdifferentiation is a non-stem cell transforming into a different type of cell, or a differentiated stem cell changing to another type of cells. Transdifferentiation is a type of metaplasia, which includes all cell fate switches, including the interconversion of stem cells. There are about 300 different types of cells, each specialized for a specific function. Most of our cells are matured cells, i.e. adult cells, rather than stem. The importance of the trandifferentiation is to transform the non-stem cell into a different type of cells. If we can transform the old cells to a young cell, we can keep the life living eternally and keep the life body in the younger stage forever. This is the really biological immortality – living eternal – we will not die. [Yang Yan, Ma Hongbao. **Transdifferentiation.** Stem Cell. 2010;1(2):18-21] (ISSN 1545-4570). http://www.sciencepub.net.	Full Text
5	**Phase I Trial: Mesenchymal Stem Cells Transplantation in End Stage Liver Disease** El-Ansary M,* Mogawer Sh,** Abdel-Aziz I,# Abdel-Hamid S * Department of Clinical Pathology*, Department of Hepatology and Gastroenterology**, Cairo University, Department of Haematology (Theodor Bilharz Research Institute)# Corresponding author: iman_khaled@yahoo.com **Abstract: Background,** End-stage liver disease and in particular human liver cirrhosis represents a worldwide health problem. Currently, liver transplant is the only effective treatment, but it is affected by many problems including relative lack of donors, operative damage, risk of rejection and high costs. Stem cell therapy is very attractive in this setting because it has the potential to help tissue regeneration while providing minimally invasive procedures and few complications. The aim of this study was to evaluate the effect of autologous transplantation of bone marrow derived mesenchymal stem cells in cirrhotic patients following chronic hepatitis C virus infection. **Methods**, Twelve patients with Child C liver cirrhosis, Model of End Stage Liver Disease (MELD) score>12 were included. They divided into 2 groups according to method of MSCs injection, 1st group was injected intrasplenic and 2nd group was injected through the peripheral blood. First group patient's ages ranged from 32 to 69 years, mean value was 48.50 ±11.09, they were 4 males (67%) and 2 females (33%). Second group patient's ages ranged from 43 to 59 years, mean value was 50.83±6.88, they were 5 males (83%) and 1 female (17%). Fifty ml bone marrow was aspirated from the iliac bone for separation of MSCs. Surface expression of CD271 and CD34 were analyzed using flowcytometry. Finally approximately 10 million MSCs/ 5ml saline were infused intrasplenic or peripherally in one session. There was highly statistical significant difference between CD271 before and after culture, p value was <0.01. **Results**, Monthly Follow up of patients for 6 months revealed partial improvement of liver function tests with decline of elevated bilirubin and liver enzymes and elevation of prothrombin concentration and serum albumin levels. There was statistically significant difference between total bilirubin, direct bilirubin, MELD score and creatinine level before and after MSCs injection in both groups, p value was <0.05. **Conclusion**, MSCs are the most potent component of bone marrow cells in its ability to differentiate into hepatocytes thus, MSC transplantation can be used as a potential treatment for liver cirrhosis. The dose, frequency and route of administration of this treatment are still to be defined. [El-Ansary M, Mogawer Sh, Abdel-Aziz I, Abdel-Hamid S. **Phase I Trial: Mesenchymal Stem Cells Transplantation in End Stage Liver Disease.** Stem Cell. 2010;1(2):22-33] (ISSN 1545-4570). http://www.sciencepub.net	Full Text