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HEPATOPROTECTIVE ACTIVITY OF METHANOLIC EXTRACT OF LITSEA GLUTINOSA AGAINST DRUG INDUCED TOXICITY

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Hepatoprotective activity of the methanolic extract of *Litsea glutinosa* (MELG) was investigated by inducing hepatotoxicity with paracetamol in rats. Serum aspartate transaminase, alanine transaminase, bilirubin and alkaline phosphatase, catalase and super oxide dismutase in liver were estimated to assess liver function. Results indicated that MELG exhibited significant hepatoprotective activity of MELG against paracetamol. The hepatoprotective activity was comparable with Silymarin, which was used as reference standard. The results of this study indicate that MELG has potent hepatoprotective action against paracetamol induced hepatic damage in rats.

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STEM CELLS- A NEW APPROACH IN DIABETES TREATMENT

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Stem cells are originating as a boon to the mankind for treating a lot of diseases and hold great promise for pancreatic beta cell replacement therapy for diabetes. This disease is one of the most prevailing diseases affecting a huge population of the world. Islet transplantation has been effective therapy for producing sustained insulin level in the patients. The human embryonic stem cells can be directed to become fully developed beta cells and same can be expected from induced pluripotent stem (iPS) cells. iPS cells can also be generated from patients with diabetes to allow studies of the genomics and pathogenesis of the disease. There are also some alternative approaches to replace beta cells by finding ways to enhance the replication of existing beta cells, stimulating neogenesis (the formation of new islets in postnatal life), and reprogramming of pancreatic exocrine cells to insulin-producing cells. Stem-cell-based approaches could also be used for modulating the immune

system in type 1 diabetes, or to curb the problems of obesity and insulin resistance in type 2 diabetes. Here, we review recent advances and we discuss how stem-cell-based approaches might be used for replacing beta cells and for treating diabetes.

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AN ILLUSTRATIVE REVIEW ON CLINICAL APPLICATIONS OF THE PLANT EXTRACT OF BARLERIA PRIONTIS

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Since time immemorial medicinal plants have a long history of usage intraditional medicine. Ayurveda is the Indian traditional system of medicine which focuses on the medical potential of plants. Medicinal plants interact directly or indirectly with the body chemistry by the chemical constituents in human body. Once the active constituents are absorbed into the blood, these constituents derive the required benefits by circulating and influencing the blood stream. *Catharanthus roseus* is one evergreen herb recognized well in Ayurveda, especially in the field of cancer treatment. It is an evergreen plant first originated from islands of Madagascar. The plant has historically been used to treat a wide assortment of diseases. Many famous phytochemicals nearly 130 alkaloids, such as ajmalicine, vincine, reserpine, raubasine, vincristine and vinblastine were isolated from this medicinal plant and used for the treatment of various types of cancer such as Hodgkin's disease, breast cancer, skin cancer and lymphoblastic leukemia. It is known for its anti-tumour, anti-diabetic, anti-microbial, anti-oxidant, wound healing, anti-ulcer, hypotensive, anti-diarrhoeal, hypolipidemic, memory enhancement and anti-mutagenic effects. It is an endangered species and need to be conserved using techniques like micropropagation. Alkaloids are one of major phytochemicals responsible for its anti-cancer properties followed by phenolic compounds such as flavonoids. It has high medicinal values which need to be explored extensively. The purpose of the current study is to document updated data about its traditional uses, isolated bioactive compounds and pharmacological activities reported.