



An Overview of Allopathic Medicines in the Treatment of Diabetes Mellitus

Annie¹, Pooja Sharma^{1,2}, Dinesh Kumar^{1*}

¹ Sri Sai College of Pharmacy, Manawala, Amritsar-143115, Punjab, India

² Department of Pharmaceutical Sciences and Drug Research, Punjabi University Patiala, Punjab, India

Address for Correspondence: Dinesh Kumar; dineshkumargndu@gmail.com

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ABSTRACT: Diabetes Mellitus (DM) is a metabolic disease characterized by hyperglycemia resulting from defects in insulin secretion. Type 1 diabetes results from the pancreas failure to produce enough insulin due to loss of beta cells. This form was previously referred to as insulin-dependent diabetes mellitus (IDDM) or juvenile diabetes. Type 2 diabetes initiated with insulin resistance, a condition in which cells fail to respond to insulin properly. Various diabetic complications are impairment of immune system, retinopathy, nephropathy, somatic and autonomic neuropathy, cardiovascular diseases and diabetic foot. Globally, as of 2013, an estimated 382 million people have diabetes worldwide, with type 2 diabetes making up about 90% of the cases. Population survey by the Indian Council of Medical Research suggested that India coming next with 65.1 million diabetes patients. Scientific and technological advances have witnessed the development of newer generation of drugs like sulphonyl ureas, biguanides, alpha glucosidase inhibitors, and thiazolidinediones with significant efficacy in reducing hyperglycemia. One of the drugs is sulfonylureas stimulate insulin secretion from the beta cells of the pancreas. Recent approaches in drug discovery have contributed to the development of new class of therapeutics like Incretin mimetics, Amylin analogues, GIP analogs, Peroxisome proliferator activated receptors, and dipeptidyl peptidase-4 inhibitor as targets for potential drugs in diabetes treatment. Additionally, the critical areas in clinical diabetology are nanotechnology, and stem cell technology which are the next generation therapeutics. © 2019 iGlobal Research and Publishing Foundation. All rights reserved.

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