Abstract

Human beings have taken successive approaches for the understanding and management of diseases. Initially brewed in supernatural concepts and mystical procedures, a vigorous scientific approach has emerged on the grounds of fundamental disciplines such as anatomy, microbiology, biochemistry, physiology, immunology, pathology, and pharmacology. The resulting integrated knowledge contributed to the current classification of diseases and the way Medicine is carried out today. Despite considerable progress, this approach is rather insufficient when it comes to systemic inflammatory conditions, such as systemic lupus erythematosus, that covers clinical conditions ranging from mild pauci-symptomatic diseases to rapidly fatal conditions. The treatment for such conditions is often insufficient and novel approaches are needed for further progress in these areas of Medicine. A recent breakthrough has been achieved with respect to chronic auto-inflammatory syndromes, in which molecular dissection of underlying gene defects has provided directions for target-oriented therapy. Such approach may be amenable to application in systemic auto-immune diseases with the comprehension that such conditions may be the consequence of interaction of specific environmental stimuli and an array of several and interconnected gene polymorphisms. On the bulk of this transformation, the application of principles of pharmacogenetics may lead the way towards a progressively stronger personalized Medicine.

Keywords