The risk of nephrologic complications of type 1 diabetes mellitus

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Diabetic nephropathy(DN) of diabetic kidney disease is a syndrome characterized by the presence of pathological quantities of urine albumin excretion diabetic glomerular lesions and loss of glomerular filtration rate in diabetics. DN is a significant cause of chronic kidney disease and end-stage renal failure globally. Much research has been conducted in both basic science and clinical therapeutics which has enhanced understanding of the pathophysiology of diabetic nephropathy and extended the potential therapies available. Diabetes mellitus poses one of the major problems in modern medicine occupying the 3rd place after the stoke and myocardial infarction. DN is the leading cause of mortality in type 1 diabetes. The proportion of diabetic patients in the overall pattern of morbidity is constantly growing:2016 - 422mln cases whereas in 1980 there were 341mln diabetic patients. The work will examine the current concepts of diabetic nephropathy management in the context of some of the basic science and pathophysiology aspects relevant to the approaches taken in novel, investigative treatment strategies.

To study is devoted ti the problem of diabetes mellitus type 1 and the analysis of the main approaches to the management of the most common nephrologic complications.

In this work we used the method of statistical analysis of data provided by WHO on diabetes mellitus type 1 and review of the literature on the DN.

In such a complex milieu of diabetes where no single treatment can halt DN progression, a multifactorial approach remains the most sensible. Understanding the pathophysiology of DN has improved over the years, particularly the molecular biology aspects. Novel biomarkers may assist in this area when more data becomes available. Despite these challenges, new strategies to complement existing treatments will nonetheless continue to be looked for. In view of the recent observational studies and clinical trial results summarized in this review, progressive urinary albumin excretion on its own may no longer be accepted as a proxy for the risk of advanced kidney disease.

DN remains a significant problem despite best efforts to the limit the impact disease on such end-organ damage. A major challenge in preventing DN relates to the accurate identification of high risk patients at an early stage. Identifying risk factors and biomarkers specifically associated with early DN will help us understand the mechanisms underlying the development.