عنوان مقاله:

Interrelationship of βeta-۲ microglobulin, blood urea nitrogen and creatinine in streptozotocin -induced diabetes mellitus in rabbits

محل انتشار:

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خلاصه مقاله:

Measurement of serum creatinine (Cr) and blood urea nitrogen (BUN) are used as indicators of glomerular filtration rate. The increased levels of these biomarkers are usually detectable at advanced stages of kidney complications. The aim of this study was to find the interrelationship of beta-۲ microglobulin (β۲M), BUN and Cr in streptozotocin (STZ)-induced diabetes mellitus in rabbits. Diabetes was induced by a single intraperitoneal (IP) injection of ۶۵ mg kg-۱ of STZ in rabbits. The levels of serum insulin, glucose and three above mentioned biomarkers were measured one day before (day -۱) and on days ۱-۳ after injection of STZ and continued weekly to the end of the experiment (۱۲ weeks). A statistically significant increase of serum β۲M, BUN, Cr and glucose levels, and a significant decrease of insulin levels were observed in diabetic animals. However, β۲M levels increased as early as one day after STZ injection compared to Cr and BUN that elevated at day two, suggesting a probable diagnostic advantage of β۲M over currently used biomarkers in diabetic related kidney complications.

کلمات کلیدی:

Beta-۲ microglobulin, Diabetes Mellitus, streptozotocin