with diabetic nephropathy and investigate the relationship between glucagon like peptide-1 receptor agonist and the expression of COX2 in renal medulla.
Methods: 130 male Sprague Dawley rats were divided into the conventional feed group (normal group, n = 30) and high sugar and fat diet fed group (n = 100) randomly. Diabetic rats were induced by intraperitoneal injection of streptozotocin after high sugar and fat diets fed eight weeks. The diabetic rats (n = 72) divided into the diabetic nephropathy (DN) group, Low-Liraglutide (L-Lg, 5 μg/kg) group and High-Liraglutide (H-Lg, 10 μg/kg) group. To measure the blood pressure, the level of sodium, 24-hour urinary sodium (UNa) and 24-hour urinary 6-keto-prostaglandin F1α (6k-PGF1α). Determination of the expression of COX2 in renal medullary tissue using immunohistochemistry. Using Western blot technology analysis the expression of COX2 protein in the renal medullary.
Results: Compared with N Group, the blood pressure, the serum sodium and UNa are increasing, the urinary 6k-PGF1α is decreasing, the renal medulla expression of COX2 is increasing in DN group ($P < 0.05$). Compared with the DN group, the blood pressure, the serum sodium and UNa are decreasing, the urinary 6k-PGF1α is increasing, the renal medulla expression of COX2 is still increasing in L-Lg group and H-Lg group ($P < 0.05$). Compared with L-Lg group, the renal medulla expression of COX2 is further increasing ($P < 0.05$).
Conclusion: GLP-1 receptor agonist Liraglutide can reduce the blood pressure, the serum sodium, increase the excretion of 24-hour urinary sodium excretion in DN rats, and increase the excretion of 24-hour urinary 6k-PGF1α, and upregulate the expression of COX2 protein in the renal medulla. The mechanism of GLP-1 receptor agonist regulate blood pressure and water-sodium metabolism by activation of COX2.

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0268
Different Doses of Heparin in the Application of Continuous Renal Replacement Therapy for Diabetic Nephropathy

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Objective: Compare the efficacy and safety of anticoagulation with different doses of heparin in the continuous renal replacement therapy (CRRT) for diabetic nephropathy, confirm the effective dose of anticoagulant in the treatment of CRRT for diabetic nephropathy to provide the basic data for clinical work.
Methods: 54 patients with diabetic nephropathy were randomly divided into three groups; group 1 (18 patients, heparin, 0.3 mg/kg), group 2 (18 patients, heparin, 0.4 mg/kg), group 3 (18 patients, heparin, 0.5 mg/kg). To evaluate coagulation function, the filter and pipeline were observed; the activated partial thromboplastin time (APTT) and platelet levels were monitored before or after treatment.
Results: In group 1, the APTT and platelet levels had no significant change after treatment; in group 2, the APTT extended to 1.5 times with no significant change of platelet levels; in group 3, the APTT raised obviously, otherwise, the platelet levels decreased remarkable with significance among group 1, group 2 and group 3 ($P < 0.05$).
Conclusion: As for diabetic nephropathy, a larger dose of heparin could increase efficacy and safety of CRRT.

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0269
Downregulation of the Expression of PINCH-1 in Kidney Tissue by Irbesartan in Diabetes Mellitus Rat

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Objective: To investigate the effect of irbesartan in regulating the expression of PINCH-1 in the kidney tissue of diabetes mellitus rat using diabetes mellitus rat model.
Methods: After establishing rat model of diabetes mellitus, real-time polymerase chain reaction (RT-PCR) and Western blot were applied to detect the expression of PINC-1 in the kidney tissue of diabetes mellitus rat after irbesartan treatment.
Results: RT-PCR shown the PINCH-1 mRNA expression in diabetes mellitus rat (1.537 ± 0.04) was higher than in the normal rat (1.128 ± 0.03), and decreased after the treatment of irbesartan (1.246 ± 0.02) ($P < 0.05$). Western blot showed the expression of PINCH-1 in the kidney tissue of diabetes mellitus rat with irbesartan treatment (1.159 ± 0.03) ($P > 0.05$).
Conclusion: Irbesartan could downregulate the expression of PINCH-1 in the kidney tissue of diabetes mellitus rat.

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0273
Clinical Analysis of Type 2 Diabetes with Proteinuria

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Objective: To analyze the kidney pathogenesis of proteinuria in patients with type 2 diabetes mellitus.
Methods: Selected 50 cases of type 2 diabetic patients with proteinuria, all of which were given tests as follows, echocardiography, carotid ultrasonography, fundus examination, glomerular filtration rate, renal function, blood lipids, blood glucose, glycosylated hemoglobin, urine analysis, 24 hour urinary protein quantitative clinical physical examination and renal biopsy. According to the pathological results, patients were divided into diabetic nephropathy group and non-diabetic nephropathy group.
Results: 48.2% of 50 cases were diagnosed as diabetic nephropathy, while 51.8% were diabetic patients with other glomerular diseases, namely non-diabetic nephropathy, and in which the highest proportion was focal segmental glomerulosclerosis. Fasting blood glucose was high in diabetic nephropathy group ($P < 0.05$). Cardiac color Doppler ultrasound indicated that the ejection fraction in the diabetic nephropathy group was significantly lower than that in the non-diabetic nephropathy group ($P < 0.05$). Carotid artery ultrasonography examination showed that in diabetic nephropathy group The number of atherosclerotic plaque patients was significantly higher than that in non-diabetic nephropathy group, while the intima media thickness (IMT) of the carotid artery in diabetic nephropathy group was higher than that in non-diabetic nephropathy group ($P < 0.05$). It is worth noting that the non-diabetic nephropathy has little to do with diabetic retinopathy, which means diabetic retinopathy has a high sensitivity and specificity for the diagnosis of diabetic nephropathy ($P < 0.01$).
Conclusion: in the case of type 2 diabetes complicated with urinary protein, fasting blood glucose, heart shot ejection fraction, carotid atheromatous plaque and intima-media thickness, and fundus changes could be used as thereference indexes for the diagnosis of diabetic nephropathy and non-diabetic nephropathy, while renal biopsy is an important diagnosis index of diabetic kidney disease.

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0281
Clinical and Pathological Predictors of Tubulointerstitial Injury in New Pathological Classification of Diabetic Nephropathy

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Objectives: To evaluate the new pathological classification of diabetic nephropathy (DN) published by Research Committee of the Renal Pathology Society in 2010 and to investigate clinical and pathological predictors of tubulointerstitial injury in new pathological classification.
Methods: 43 cases with DN performed renal biopsy. Patients were divided into different groups according to glomerular classification or interstitial fibrosis and tubular atrophy (IFTA) score by the new pathological classification. We used X^2 test or Fisher's exact test, Mann-Whitney U-test, Kruskal-Wallis H-test and Spearman's correlation to make comparisons and correlations between the clinical and pathological findings