MATERIAL AND METHODS
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Present study was conducted in the department of Medicine, M.L.B. Medical College, Hospital, Jhansi. In this study 40 cases of nephrotic syndrome in adults admitted in medical wards from June 90 to July, 91 have been included. These 40 cases were taken from consecutive medical units without any selection.

Patients who had 24 hour urinary protein excretion more than 3.5 gm with or without anasarca, hypoalbuminaemia and hypercholesterolaemic were included in the study.

A detailed clinical history was taken including age, sex, occupation, socio-economic status, mode of onset of illness, duration of illness, preceding pharyngeal or skin infections, respiratory infections, diabetes mellitus and pulmonary tuberculosis. The history of oedema, oliguria, hematuria, hypertension, pain in the loin, nausea, vomiting, G.I. bleeding, joint pain, skin rash, allergic disorders, intake of drugs and history any such illness in the family.

Thorough physical examination was conducted including general condition, pulse, R.P., temperature, respiration, pallor, oedema, clubbing, cyanosis, jaundice, lymph nodes and state of hydration. Abdomen was examined for any lump, free fluid in the peritoneal cavity and evidence of enlarged liver, spleen and kidney. Carotis
other cardiac abnormality. Any disease of nervous system was also ruled out. Examination of respiratory system was done for any clinical evidence of pulmonary tuberculosis, pleural effusion, sarcoidosis, amyloidosis and any other chronic suppressive disease of the lung. The locomotor system was examined for any evidence of arthritis or other features of collagen disorders.

Every patient was investigated for routine investigation like TLC, DLC, Hb, ESR, Complete urinalysis - including albumin, sugar, pus cells, casts, RBCs, and estimation of 24 hour urinary protein excretion was done. Other renal function tests, blood urea, serum creatinine were done in all the cases. Tests for total and differential proteins and serum cholesterol were undertaken. Blood sugar was done to exclude diabetes mellitus in all the cases. General blood picture was also done in all the cases to see any evidence of malarial parasite. X-ray chest PA view and sputum for acid fast bacilli were done to see any evidence of pulmonary tuberculosis. Specific tests like LE cell, ANF and rheumatoid factors were done in selected cases.

Percutaneous needle biopsy of kidney was done in all the cases except where the patient was non-cooperative, had severe hypertension, bleeding disorders, or coagulation disorder, single kidney and terminal renal failure. Biopsy was not done in cases of diabetes mellitus due to obvious histopathological changes.
TECHNIQUE OF KIDNEY BIOPSY

Instrument used

Franklin modified Vin-Silverman biopsy needle was used because it gives well cut tissue from the organ (Muhrche et al, 1955).

Preparation of the patient

Every patient prior to kidney biopsy was subjected to bleeding and clotting time to minimise any possibility of bleeding after the procedure. The kidney was located with the help of plain X-ray abdomen KUB region. Biopsy procedure was thoroughly explained to the patient.

Procedure

After micturition patient was asked to lie prone in the bed. A firm pillow was placed beneath the abdomen to fix the kidney against the back. Biopsy site was chosen in the renal angle at the lower outer pole of the left kidney. Biopsy site is lateral to quadratus lumborum muscle just below the 12th rib.

Biopsy was done with all aseptic precautions. Frequent vitals (pulse rate and blood pressure) were recorded before, during and after the procedure. After infiltration of local anaesthetic agent a lumbar puncture needle of 20 gauge was used for locating the kidney. The patient was asked to take deep breath and to hold it at the height of inspiration, during this breath holding period exploring needle was advanced towards the kidney.
at the selected site in the renal angle until a resistance was felt as it penetrates the renal capsule. Patient was then asked to breath out and in repeatedly. When the needle moved back and forth, it confirmed that needle was in the right place.

Now, with the patient holding his or her breath at the height of inspiration, the depth of the kidney from surface was marked on the exploring needle by catching it firmly between thumb and index finger.

Now at the same site, previously measured depth of biopsy needle with stylet was advanced while the patient was asked to take deep breath and hold it when needle was fully advanced to the measured distance, patient was asked to take few breaths and by the movements of the needle its position in right place was confirmed. Patient was then asked to take deep breath and hold it, now stylet was removed and Franklin cutting prongs were inserted to its full depth. Now the outer sheath is pushed down over the cutting prongs which cuts the biopsy tissue from the kidney. The needle and the tissue were quickly pulled out of the back and a firm pressure was applied at the biopsy site with a pad of gauze. The site was dressed with pressure and patient laid in the same position for half an hour. Patient was advised bed rest for 24 hours after biopsy and watched for pulse, B.P. and haematuria.
Tissue thus obtained was fixed in normal saline. The section was stained routinely with haematoxyline and eosine, Mac manus periodic acid Schiff's stain for mucopoly saccharide and gention violet and Congo red stains for amyloid in selected cases by standard techniques.

The data obtained by clinical examination of the patients and the histopathological findings were statistically analysed.