**Nephrology**

219. Glyceryl Trinitrate Therapy in Ureteric Calculi  
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We ventured to dilate the ureters with sublingual spray of glyceryl trinitrate (GTN) and case-out ureteric calculi early, with less pain and non invasive technique. Ultrasonographic colour monitor observation of six healthy male individuals including the first author under went trial assessment of ureteric jet flow for 5 minutes before and after 2 puffs of (0.8 mg) GTN spray were given sublingually and observed for 5 minutes and recorded the good increase in the jet volume and increase in frequency from 5 on average to 40 on average; after initial one and a half litres of Ringer Lactate Solution infusion to augment the renal excretion. After recording the uniform increase in the number of jet and good increase in the volume of jet; we adopted the procedure in patients with ureteric calculi and repeated the GTN spray 2 puffs every 30 mts along with 120 mg of frusemide iv to augment renal excretion and flush out the calculi. 14 Male and 6 Female patients aged between 32 and 58, who were having right ureteric calculi in 12 and left ureteric calculi in 10 of them; the sizes of calculi were 4 mm to 9 mm. While in this mode of treatment all the urine passed were collected carefully and filtered for passed out calculi or broken calculi. Repeat Ultrasonogram confirmed the passing out of the calculi.

19 patients successfully voided the calculi in full or as very small granules with minimal ureteric colic. This is an elegant and effective treatment for ureteric calculi in 86.5% of patients.

221. A Correlative Study Between Prevalence of LV Dysfunction and the Length of Waiting Period for Renal Allograft Transplantation in Renal Transplant Recipients  
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Background : We studied the left ventricular function in renal transplant recipients by Echocardiogram and compared it with waiting period for transplant, i.e., the period of time following the diagnosis of ESRD and transplant surgery.

Method : Study population consists of patients attending renal transplant follow up OPD at Madras Medical College. 42 recipients were selected on the basis of certain criteriae and were subjected to echocardiogram.

Results : Diastolic dysfunction was seen in 28 (66.6%) of the study group of which 18 had Grade 1, 4 had Grade II and 6 had Grade III dysfunction.

Statistical significance (P = 0.001) was found between the length of the waiting period and severity of diastolic dysfunction. None had systolic dysfunction.

Conclusion : The study underscores the importance of reducing the waiting period of decrease the prevalence of LV dysfunction in renal allograft recipients.

224. Comparison of the Effects of a Keto-aminoacid Supplemented Very Low Protein Diet (VLPD) and a Regular Diet in Chronic Kidney Disease (CKD)  
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Introduction : The role of low protein diet in retarding progression of chronic kidney disease is debatable. Does VLPD supplemented with ketoaminoacids retard the progression of chronic kidney disease?

Methods : Twenty-eight stable adults patients with CKD were randomly assigned to regular diet (n=14) or VLPD supplemented with ketoaminoacids diet (n=14). Creatinine clearance (Cr. cl.) was monitored monthly. Assessment of rate of renal function decline was done by Cr. cl. vs time plot. Assessment of nutritional status was done from diet interview, anthropometry and biochemical parameters.

Results : The mean slope of Cr. cl. vs time in the treatment group was 0.34 ml/min/month and in the control group it was 0.53 ml/min/month. The difference was not statistically significant. The nutritional status worsened in both groups, slightly more in the treatment group.

Conclusion : The study shows that the rate of decline in renal function is slower with VLPD supplemented with ketoaminoacids but the difference is not statistically significant. Such a diet does carry the risk of worsening the nutritional status.

226. Bone Mineral Density in Chronic Renal Failure  
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Background : Progressive chronic renal failure is almost universally accompanied by abnormalities of bone structure. Dual energy x-ray adsorption is relatively new technology in assessment of bone disease in renal failure.

Aims and Objective : To study bone mineral density by Dual x-ray energy adsorption and correlate it with duration severity of CRF, serum calcium, phosphorus, alkaline phosphatase and PTH level.

Subjects : Thirty patients of CRF attending nephrology division of tertiary care center.

Methods : BMD of lumbar spine, femoral neck and distal forearm were determine by DEXA on QDR 1000 bone densitometer. Serum Ca, PO4, Ca x PO4 product, alkaline phosphatase were studied.

Results : Of 30 patients 12,11,10 showed osteopenia, 18,19, 19, showed osteoporosis at spine, hip and radius respectively. Hyperphosphatemia as risk factor for osteopenia and osteoporosis found to be statistically significant at spine, hip and radius. Higher PTH values were associated with osteoporosis at the spine. Correlation between serum ca and alkaline phosphatase with BMD was not found to be statistically significant at any site.

Conclusions : All patients with CRF had osteopenia or osteoporosis. Hyperphosphatemia is a major risk factor for low BMD.
229. A Trial of Mycophenolate Mofetil (MMF) Therapy in Steroid Dependent Nephrotic Syndrome

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Background: A proportion of patients with Steroid Dependent Nephrotic Syndrome (SDNS) relapse frequently despite long-term treatment with steroid, levamisole, cyclophosphamide and cyclosporine. Mycophenolate mofetil (MMF) is an effective immunosuppressive agent in renal transplantation. It can also be used in the SDNS.

Aim: The aim of the study is to investigate the efficacy of long-term therapy of MMF as a steroid sparing agent in this group.

Material and Methods: Seven (M:5; F:2) patients in the age group of 5-15 years having SDNS are subjected for study. Renal biopsy reveals Minimal change nephropathy (MCN) or classical Focal Segmental Glomerulosclerosis (FSGS). Multiple relapses have occurred despite treatment with steroid, levamisole, cyclophosphamide and cyclosporine. They are treated with MMF in a dose of 30 mg/kg/day in 2 divided doses along with steroids (20-60 mg/day, gradually tapered) for a period of one year. They are followed up for a period of another year.

Results: 5 (71.42%) patients had maintained remission during MMF therapy. Of these, 4 (57.14%) patients are continuing remission even after stoppage of MMF for last one year. Failure of MMF therapy (more than 3 relapses during and after treatment), were seen in 2 patients. No significant side effects of MMF therapy are noted.

Conclusion: MMF therapy for 12 months results in significant steroid sparing and reduction in relapse rates in patients with SDNS. This is a safe and effective therapy in a steroid sensitive patient. However, long-term result in a large no. of patients need to be evaluated.

* Adjudged Best Papers and got an award of Rs. 1000/- each from Chairman Scientific Committee, Diamond APICON 2005.