

cysteine on the expression of the fibrinogen B  $\beta$  chain, BTG1 and THRP genes as a homeostatic adaptive response during protein deficiency.

Poster Presentations – Field A2. Therapeutics

[PA2-1] [ 10/18/2001 (Thr) 14:00 – 17:00 / Hall D ]

**Antiproteinuric Effect of Enalapril in Children with Nephrotic Syndrome**

Lee MyoungSook<sup>o</sup>, Lee Sukhyang

Department of Pharmacy, Seoul Natinal University Hospital, #28, Yongon-dong, Chongno-gu, Seoul, Korea, Graduate school of Clinical Pharmacy Sookmyung Women's University, Seoul, Korea

Enalapril, an angiotensin converting enzyme inhibitor, was used to treat pediatric patients with nephrotic syndrome. The objective is to study the antiproteinuric effect of enalapril in children with nephrotic syndrome.

Patients were eligible when the children with nephrotic syndrome were treated with enalapril and corticosteroid at Seoul National

University Children's Hospital. The exclusion criteria were the secondary nephrotic syndrome. Dosage of enalapril started with 0.1mg/kg/d. The primary variables evaluating efficacy of enalapril to nephrotic syndrome were time-dependent changes in serum total protein, albumin, total cholesterol and serum creatinine, BUN and urinary protein/creatinine ratio. Adverse drug events associated with enalapril and corticosteroid were evaluated. There were total 35 patients with 26 boys and 9 girls, age ranging from 3 to 22years. Ten patients had hypertension at baseline.

Histological lesions were focal and segmental glomerulosclerosis in 18, minimal change nephrotic syndrome in 7, membranoproliferative glomerulonephritis in 2, membranous glomerulonephritis in 1 and 7 patients not done kidney biopsy.

Serum total protein and albumin levels increased simultaneously. Total protein increased from 5.1( $\pm$ 1.1) g/dL to 5.7( $\pm$ 1.0)g/dL ( $p=0.029$ ) and 6.1( $\pm$ 1.1)g/dL ( $p=0.009$ ) at 6 months and 3 years after treatment, respectively. Serum albumin increased from 2.4( $\pm$ 0.9)g/dL to 2.9( $\pm$ 0.9)g/dL ( $p=0.009$ ) and 3.3( $\pm$ 1.2) g/dL ( $p=0.005$ ) at 6 months and 3 years after treatment, respectively. Total cholesterol level decreased from 384.7( $\pm$ 156.5)mg/dL to 293.4( $\pm$ 160.5)mg/dL ( $p=0.081$ ) at 3 years after treatment. Serum creatinine level showed statistically significant change and BUN level showed no statistically significant change. Enalapril

treatment was associated with significant and persistent reduction of urinary protein/creatinine ratio from 16.3( $\pm$ 20.6) to 6.0( $\pm$ 8.9) ( $p=0.011$ ) and 3.7( $\pm$ 7.0) ( $p=0.003$ ) at 6 months and 3 years after treatment, respectively.

Side effects of enalapril were observed for cough in one patient and elevated BUN and Scr in one patient.

We conclude that enalapril treatment was effective in reducing proteinuria with preserved renal funtion.

[PA2-2] [ 10/18/2001 (Thr) 14:00 – 17:00 / Hall D ]

**Cyclosporin Induced Hyperuricemia and the Uricosuric Efficacy of Benzbromarone in Kidney Transplant Patients**

Cha Moonsun<sup>o</sup>, Oh JungMi, Han DuckJong

Graduate School of Clinical Pharmacy, Sookmyung Women's University

Cyclosporin is known to cause hyperuricemia which may subsequently cause gouty nephropathy and graft dysfunction. The purpose of this study was to evaluate the frequency and predisposing factors of hyperuricemia in cyclosporin-treated patients within one year of kidney transplantation and uricosuric efficacy of benzbromarone. The patients who were treated with cyclosporin after kidney transplantation in 1998 and 1999 were investigated retrospectively. Among the 76 patients in cyclosporin-treated patients in 1998, hyperuricemia occurred in 55 patients (72.4%) and the mean time from kidney transplantation to occurrence of hyperuricemia was 5.0±0.0 months. These patients were not treated with any medication for hyperuricemia. In 1999, 22 patients were treated with benzbromarone for hyperuricemia and their mean time from kidney transplantation to occurrence of hyperuricemia was 4.5±0.4 months. Acute rejection developed in one patient (4.8%) out of 21 normo-uricemic patients in 1998, and 11 patients (20.0%) out of 55 hyperuricemic patients in 1998. The difference of rejection rate in these two groups was significant ( $p=0.001$ ). There was no difference of rejection rate between before and after treatment of benzbromarone. Hyperuricemic patients showed significantly higher serum creatinine levels than patients with normal uric acid levels ( $p=0.006$ ). Benzbromarone decreased serum uric acid levels from 8.6±3.3mg/dl to 5.1±0.0mg/dl ( $p=0.001$ ) and thereby normalized serum uric acid in all of 22 patients. Reduced serum uric acid levels were maintained at 3.0±0.4mg/dl once serum uric acid levels were normalized. Except for one patient (4.5%) who experienced diarrhea, no significant side effect was noted.

[PA2-3] [ 10/18/2001 (Thr) 14:00 - 17:00 / Hall D ]

### **A Comparison of Effects of Alendronate and Calcitriol Combined with Estrogen Replacement Therapy in Postmenopausal Osteoporotic Patients**

Hwang EunJeong, Oh JungMi

Graduate School of Clinical Pharmacy Sookmyung Women's University

The purpose of this study was to evaluate the effects of alendronate and calcitriol combined with hormone replacement therapy in postmenopausal osteoporotic women. Seventy-nine postmenopausal women who visited Kangnam St.Mary's Hospital were assessed to evaluate the impacts of each drug on bone mineral density and bone metabolism. Group I was composed of 20 women who received estrogen only, Group II was composed of 28 women who received estrogen with addition of calcitriol (0.5µg daily), and Group III was composed of 31 women who received estrogen with addition of alendronate (10mg daily). In all subjects, bone mineral density (BMD) was measured in the lumbar vertebrae (L2-4) and femur neck using dual energy absorptiometry (DEXA), and serum osteocalcin, serum total alkaline phosphatase and urine deoxypyridinoline were measured at the beginning of the treatment and after 12 months of treatment. BMD of the lumbar vertebrae in Group II increased significantly compared to basal level at 12 months, but not in Group I and III. As for BMD of the femur neck, it increased significantly during the treatment in Group I and Group II, but not in Group III. Serum osteocalcin in Group III decreased significantly at 12 months of treatment compared with Group I and II. Serum alkaline phosphatase in Group I and III decreased significantly at 12 months of treatment compared with Group I. Urine deoxypyridinoline in Group I, Group II and Group III decreased but was statistically insignificant. From the above results, it might be suggested that the combined therapy (estrogen with daily addition of alendronate or Calcitriol) is more effective than the estrogen therapy only for the protection of decreasing bone mineral density in the postmenopausal women.

[PA2-4] [ 10/18/2001 (Thr) 14:00 - 17:00 / Hall D ]

### **A Comparison of Platinum-Based Combination Chemotherapy in Patient with Non-Small Cell Lung Cancer**

Shin Eunjeong<sup>0</sup>, Lee Sukhyang

Department of Pharmacy, Seoul National University Hospital, #28, Yongon-dong, Chongno-gu, Seoul, Korea, Graduate School of Clinical Pharmacy, Sookmyung Women's University, Seoul, Korea