RESULTS

Table (1): Shows that mean age of the nephrotic children (7.68 ± 3.09 years) was not significantly different from mean age of the control group (7.27 ± 1.81 years).

Table (2): Shows that no statistically significant difference was found between the nephrotic children and controls as regards sex.

Table (3): Shows that the nephrotic patients had significant proteinuria, hypoalbuminemia and elevated serum cholesterol levels. The patients had normal serum creatinine levels.

Table (4) and figure (1): Show that total serum calcium in the nephrotic patients (mean ± SD, 7.74 ± 0.38 mg/dl) was significantly lower than in the control group (mean ± SD, 9.67 ± 0.47 mg/dl) ($P<0.001$).

Table (5) and figure (2): Show that serum phosphorus level in the nephrotic patients (mean ± SD, 4.95 ± 0.58 mg/dl) was not significantly different from the level measured in the controls (mean ± SD, 4.71 ± 0.42 mg/dl) ($P > 0.05$).

Table (6) and figure (3): Show that serum level of PTH in the nephrotic patients (mean ± SD, 78.54 ± 16.73 pg/ml) was significantly higher than in the controls (mean ± SD, 45.36 ± 20.66 pg/ml) ($P < 0.001$).

Table (7) and figure (4): Show that serum level of 1,25-$(OH)_2D$ in the nephrotic patients (mean ± SD, 27.19 ± 4.79 pg/ml) was significantly lower than in the control group (mean ± SD, 31.49 ± 4.92 pg/ml) ($P < 0.01$).

Table (8): Shows that total serum calcium was correlated directly with both serum albumin ($r = 0.46$, $P < 0.05$) and serum level of 1, 25 $(OH)_2D$ ($r = 0.69$, $P < 0.001$), but inversely with serum cholesterol ($r = -0.43$, $P < 0.01$), serum phosphorus ($r = -0.63$, $P < 0.001$) and serum level of PTH ($r = -0.77$, $P < 0.001$).

Table (9): Shows that serum phosphorus was correlated directly with serum level of PTH ($r = 0.73$, $P < 0.001$) and inversely with serum level of 1, 25 $(OH)_2D$ ($r = -0.64$, $P < 0.001$).

Table (10): Shows that serum level of PTH was correlated directly with proteinuria ($r = 0.46$, $P < 0.05$), but inversely with serum albumin ($r = -0.53$, $P < 0.01$) and serum level of 1, 25-$(OH)_2D$ ($r = -0.79$, $P < 0.001$).

Table (11): Shows that serum level of 1,25$(OH)_2D$ was correlated directly with serum albumin ($r = 0.48$, $P < 0.01$) and inversely with proteinuria ($r = -0.38$, $P < 0.05$) and serum cholesterol ($r = -0.40$, $P < 0.05$).

Table (12): Shows distribution of 19 nephrotic patients, in whom renal biopsy was performed, by histopathologic findings. The renal lesion associated with nephrotic syndrome was minimal

change glomerulopathy in three patients, focal segmental glomerulosclerosis in eleven, mesangial proliferative glomerulonephritis in two, membranous glomerulonephritis in two and memberano-proliferative glomerulonephritis in one.

Table (13): Shows that no statistically significant differences were found in serum calcium, phosphorus, PTH and $1,25(OH)_2D$ between patients with MCNS (group I) and patients with other renal lesions (group II).

Table (1): Age in patients and controls

	Mean	SD	Range	
			Minimum	Maximum
Patients (n=30)	7.68	3.09	2.00	12.00
Controls (n=15)	7.27	1.81	4.00	10.00
t-test 0.57 P > 0.05				

P > 0.05 = insignificant

Table (2): Sex distribution in patients and controls

	Male		Female	
	No	%	No	%
Patients (n = 30)	23	76.7	7	23.3
Controls (n = 15)	11	73.3	4	26.7
Fisher's exact test P > 0.05				

P > 0.05 = insignificant

Table (3): 24-hour proteinuria, total plasma protein, serum albumin, serum cholesterol and serum creatinine in patients and controls

Variable	Patients (n = 30)	Controls (n = 15)	Comparison	
	Mean ±SD	Mean ±SD	t	p
Proteinuria (gm/24hr)	3.84 ± 0.88	0.05 ± 0.02	23.57	< 0.001
Total plasma protein (gm/dl)	4.02 ± 0.63	6.93 ± 0.24	22.37	< 0.001
S. albumin (gm/dl)	1.59 ±0.59	4.14 ± 0.24	20.45	< 0.001
S. cholesterol (mg/dl)	427.33 ± 112.68	140 ± 19.59	13.56	< 0.001
S. creatinine (mg/dl)	0.52 ± 0.19	0.55 ± 0.17	0.59	> 0.05

P > 0.05 = insignificant

P < 0.001 = extremely significant

Table (4): Total serum calcium (mg/dl) in patients and controls

	Mean	SD	Range	
			Minimum	Maximum
Patients (n = 30)	7.74	0.38	7.0	8.2
Controls (n = 15)	9.67	0.47	8.8	10.4
t-test 14.84 P < 0.001				

P < 0.001 = extremely significant

Table (5): Serum phosphorus (mg/dl) in patients and controls

	Mean	SD	Range	
			Minimum	Maximum
Patients (n = 30)	4.95	0.58	3.9	6.2
Controls (n = 15)	4.71	0.42	3.8	5.3
t-test 1.58 P > 0.05				

P > 0.05 = insignificant

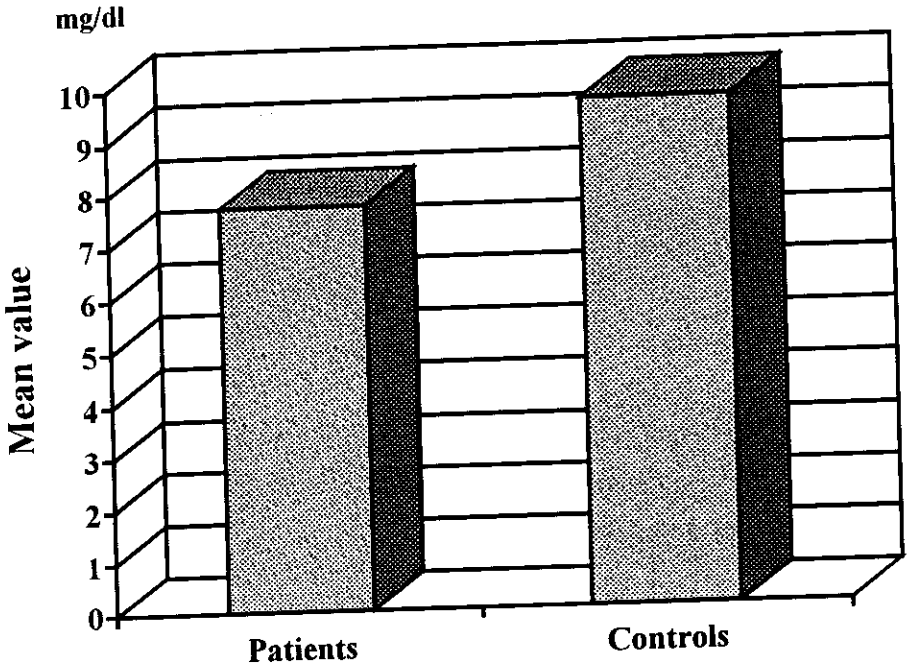

Figure (1): Total serum calcium in patients and controls

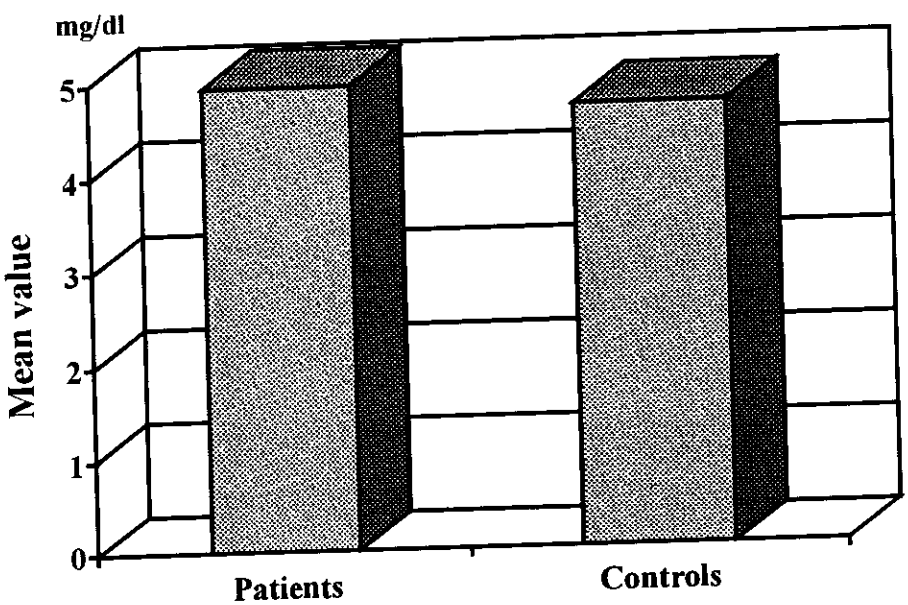

Figure (2): Serum phosphorus in patients and controls

Table (6): Serum level of PTH (pg/ml) in patients and controls

	Mean	SD	Range	
			Minimum	Maximum
Patients (n = 30)	78.54	16.73	53.2	121.8
Controls (n = 15)	45.36	20.66	15.8	87.3
t-test 5.80 P < 0.001				

P < 0.001 = extremely significant

Table (7): Serum level of $1,25(OH)_2D$ (pg/ml) in patients and controls

	Mean	SD	Range	
			Minimum	Maximum
Patients (n = 30)	27.19	4.79	16.9	34.6
Controls (n = 15)	31.49	4.92	23.5	39.5
t-test 2.82 P < 0.01				

P < 0.01 = highly significant

Table (8): Correlation between total serum calcium and other laboratory data of the nephrotic patients

Variable	Total serum calcium	
	r	P
Proteinuria	-0.29	> 0.05
Total plasma protein	0.37	< 0.05
S. albumin	0.46	< 0.05
S. cholesterol	-0.43	< 0.01
S. creatinine	0.07	> 0.05
S. phosphorus	-0.63	< 0.001
S. level of PTH	-0.77	< 0.001
S. level of $1,25(OH)_2D$	0.69	< 0.001

P > 0.05 = insignificant

P < 0.05 = significant

P < 0.01 = highly significant

P < 0.001 = extremely significant

Table (9): Correlation between serum phosphorus and other laboratory data of the nephrotic patients

Variable	Serum phosphorus	
	r	P
Proteinuria	0.24	> 0.05
Total plasma protein	-0.26	> 0.05
S. albumin	-0.35	> 0.05
S. cholesterol	0.16	> 0.05
S. creatinine	-0.036	> 0.05
S. level of PTH	0.73	< 0.001
S. level of $1,25(OH)_2D$	-0.64	< 0.001

P > 0.05 = insignificant

P < 0.001 = extremely significant

Table (10): Correlation between serum level of PTH and other laboratory data of the nephrotic patients

Variable	Serum level of PTH	
	r	P
Proteinuria	0.46	< 0.05
Total plasma protein	-0.47	< 0.01
S. albumin	-0.53	< 0.01
S. cholesterol	0.35	> 0.05
S. creatinine	-0.01	> 0.05
S. level of 1, 25 $(OH)_2D$	-0.79	< 0.001

P > 0.05 = insignificant

P < 0.05 = significant

P < 0.01 = highly significant

P < 0.001 = extremely significant

Table (11): Correlation between serum level of 1,25 $(OH)_2D$ and other laboratory data of the nephrotic patients

Variable	serum level of 1,25-$(OH)_2D$	
	r	P
Proteinuria	-0.38	< 0.05
Total plasma protein	0.42	< 0.05
S. albumin	0.48	< 0.01
S. cholesterol	-0.40	< 0.05
S. creatinine	0.005	> 0.05

P > 0.05 = insignificant

P < 0.05 = significant

P < 0.01 = highly significant

Table (12): Distribution of nephrotic patients by histopathologic findings

Histopathologic finding	No	%
Minimal change glomerulopathy	3	15.8
Focal segmental glomerulosclerosis	11	57.9
Mesangial proliferative glomerulonephritis	2	10.5
Membranous glomerulonephritis	2	10.5
Membranoproliferative glomerulonephritis	1	5.3
Total	19	100

Table (13): Comparison between patients with MCNS (group I) and patients with other renal lesions (group II)

Variable	Group I (n = 14)	Group II (n = 16)	Comparison	
	Mean ± SD	Mean ± SD	t	P
Total serum calcium	7.69 ± 0.35	7.79 ± 0.42	0.72	> 0.05
S. phosphorus	5.02 ± 0.68	4.88 ± 0.49	0.65	> 0.05
S. level of PTH	78.81 ± 18.70	78.31 ± 15.43	0.08	> 0.05
S. level of $1,25(OH)_2D$	26.92 ± 5.28	27.43 ± 4.48	0.28	> 0.05

P > 0.05 = insignificant