R E S U L T S

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Table number 1 shows the mean, the standard deviation and the range of protein creatinine ratio (PTN/CR), the urinary protein secreted in 24 hours (PTN 24 hr.), the urinary protein secreted at night (PTN 12 n.) and urinary protein secreted during day (PTN 12 d.) in the control group. Table no. 2 shows the same data in the nephrotic group, while Table no. 3 represents the nephritic group. Level above 0.33 in PTN/CR ratio points to diseased child, while level above 5.88 ($\pm$ 6) points to nephrotic patients.

Table no. 4 shows the higher levels of PTN/CR ratio, PTN 24 hr., PTN 12 n., and PTN 12 d. in the nephrotic group in comparison to the control group.

Table no. 5 shows the same data in the nephritic group and the control group. The two tables show statistical significance difference ($P < 0.001$).

Table no. 6 shows statistical significant higher levels of PTN/CR ratio, PTN 24 hr., PTN 12 d. and PTN 12 n. In nephrotic group they are (4.01 ± 2.6, $100.81 \pm 45,68$, 100.07 ± 59.61 and 99.62 ± 59.84 respectively), while in the nephritic patients they are (1.34 ± 1.52, 24.43 ± 19.54, 15.18 ± 13.7 and 24.49 ± 24.12 respectively) where P is <0.0001. Higher levels were recorded in nephrotic patients rather than nephritic patients.

Figure no. 1 shows regression analysis between PTN/CR ratio and PTN 24 hr. in the control group. It reveals a higher correlation between PTN/CR ratio and PTN 24 hr. secreted in urine of normal subjects where r = 0.4795 and P = < 0.000001. From this figure we can predict either PTN 24 hr. or PTN/CR ratio according to the following equation : $y = X + (0.0018 \times 9.66)$, where y = PTN/CR ratio and X = PTN 24 hr. On the other hand, statistical correlation had been found between PTN/CR ratio and PTN 12 d. and PTN 12 n., but their predictive effect on PTN/CR ratio could not be achieved statistically as shown in Table 7.

Figure no. 2 shows regression analysis between PTN/CR ratio and PTN 24 hr. in nephritic group. The same higher correlation was also found between PTN/CR ratio and PTN 24 hr. (r = 0.91194).

The predictive equation in this group is as follow: $y = X + (0.268 \times 4.384)$.

The PTN 12 d. and PTN 12 n. show an individual higher variation so that their predictive values on PTN/CR ratio could not be achieved as shown in Table no. 8.

Figure no. 3 shows regression analysis between PTN/CR ratio and PTN 24 hr. in the nephrotic group.

Table (1): Statistical analysis to protein/creatinine ratio and proteinuria in the control cases.

Number of cases : 65 Number of variables : 4

Control						
No.	Name	N	Mean	Std. Dev.	Minimum	Maximum
1	PTN/CR	64	0.0710	0.0681	0.0000	0.3300
2	PTN 24 hr.	64	5.5292	3.3823	0.0000	13.3800
3	PTN 12 n.	64	5.3528	3.2794	0.0000	15.8300
4	PTN 12 d.	64	5.6142	3.4930	0.0000	14.1600

Table (2): Statistical analysis to protein/creatinine ratio and proteinuria in the nephrotic group.

Number of cases : 33 Number of variables : 4

Nephrotic

Mo.	Name	N	Mean	Std. Dev.	Minimum	Maximum
1	PTN/CR	32	4.0120	2.4642	1.0500	13.7900
2	PTN 24 hr.	32	100.8097	45.6814	0.0720	204.1600
3	PTN 12 n.	32	100.0730	59.6096	0.0000	245.9500
4	PTN 12 d.	32	99.6196	59.8400	0.0000	333.3300

Table (3): Statistical analysis to protein/creatinine ratio and proteinuria in the nephritic group.

Number of cases : 13 Number of variables : 4

Nephritic

No.	Name	N	Mean	Std. Dev.	Minimum	Maximum
1	PTN/CR	12	1.3392	1.5164	0.3500	5.8800
2	PTN 24 hr.	12	24.4250	31.5412	1.8700	119.0000
3	PTN 12 n.	12	15.1808	22.6610	1.0000	79.3600
4	PTN 12 d.	12	24.4925	43.7221	0.0000	159.7300

Table (4): Statistical analysis of PTN/CR ratio and proteinuria in the control group and the nephrotic patients.

	Normal	Nephrotic	t	p
PTN/CR				
X	0.071	4.01	12.9	<0.000001
S.D.	0.06	2.5		
PTN 24 hr.				
X	5.53	100.81	16.68	<0.00000001
S.D.	3.38	45.68		
PTN 12 n.				
X	5.35	100.07	12.7	<0.000000001
S.D.	3.27	59.61		
PTN 12 d.				
X	5.61	99.62	12.4	<0.0000000001
S.D.	3.49	59.84		

Table (5): Statistical analysis of PTN/CR ratio and proteinuria in the control group and in the nephritic patients.

	Normal	Nephritic	t	P
PTN/CR				
X	0.071	1.34	6.86	<0.000001
S.D.	0.06	1.52		
PTN/24 hr.				
X	5.53	24.43	8.78	<0.0000001
S.D.	3.38	19.54		
PTN/12 n.				
X	5.35	15.18	4.48	<0.0001
S.D.	3.27	13.7		
PTN/12 d.				
X	5.61	24.49	3.49	<0.00001
S.D.	3.49	24.12		

Table (6): Statistical analysis of PTN/CR ratio and proteinuria in both nephritic and nephrotic groups.

	Nephrotic	Nephritic	t	P
PTN/CR				
X	4.01	1.34	3.5	<0.0001
S.D.	2.5	1.52		
PTN 24 hr.				
X	100.81	24.43	5.32	<0.0000001
S.D.	45.68	19.54		
PTN 12 n.				
X	100.07	15.18	4.77	<0.000001
S.D.	59.61	13.7		
PTN 12 d.				
X	99.62	24.49	3.95	<0.00001
S.D.	59.84	24.12		

Table (7): Factors of correlation with protein content in control group.

Factors	r	P	SEE
PTN 24 hr.	0.47947	<0.000001	0.06
PTN 12 n.	0.40629	<0.05	
PTN 12 d.	0.43590	<0.001	

SEE = standard error of estimation.

Table (8): Factors of correlation with protein content in the nephritic group.

Factors	r	P	SEE
PTN 24 hr.	0.91194	0.00001	0.65
PTN 12 n.	0.79554	<0.001	
PTN 12 d.	0.88801	<0.000001	

Table (9): Factors of correlation with protein content in the nephrotic group.

Factors	r	P	SEE
PTN 24 hr.	0.39635	<0.05	
PTN 12 n.	0.29635	<0.05	
PTN 12 d.	0.29635	<0.05	

Table (10): Factors of correlation with protein content in the 3 studied groups.

Factors	r	P	SEE
PTN 24 hr.	0.66684	<0.0001	1.69
PTN 12 n.	0.56458	<0.001	
PTN 12 d.	0.65456	<0.0001	

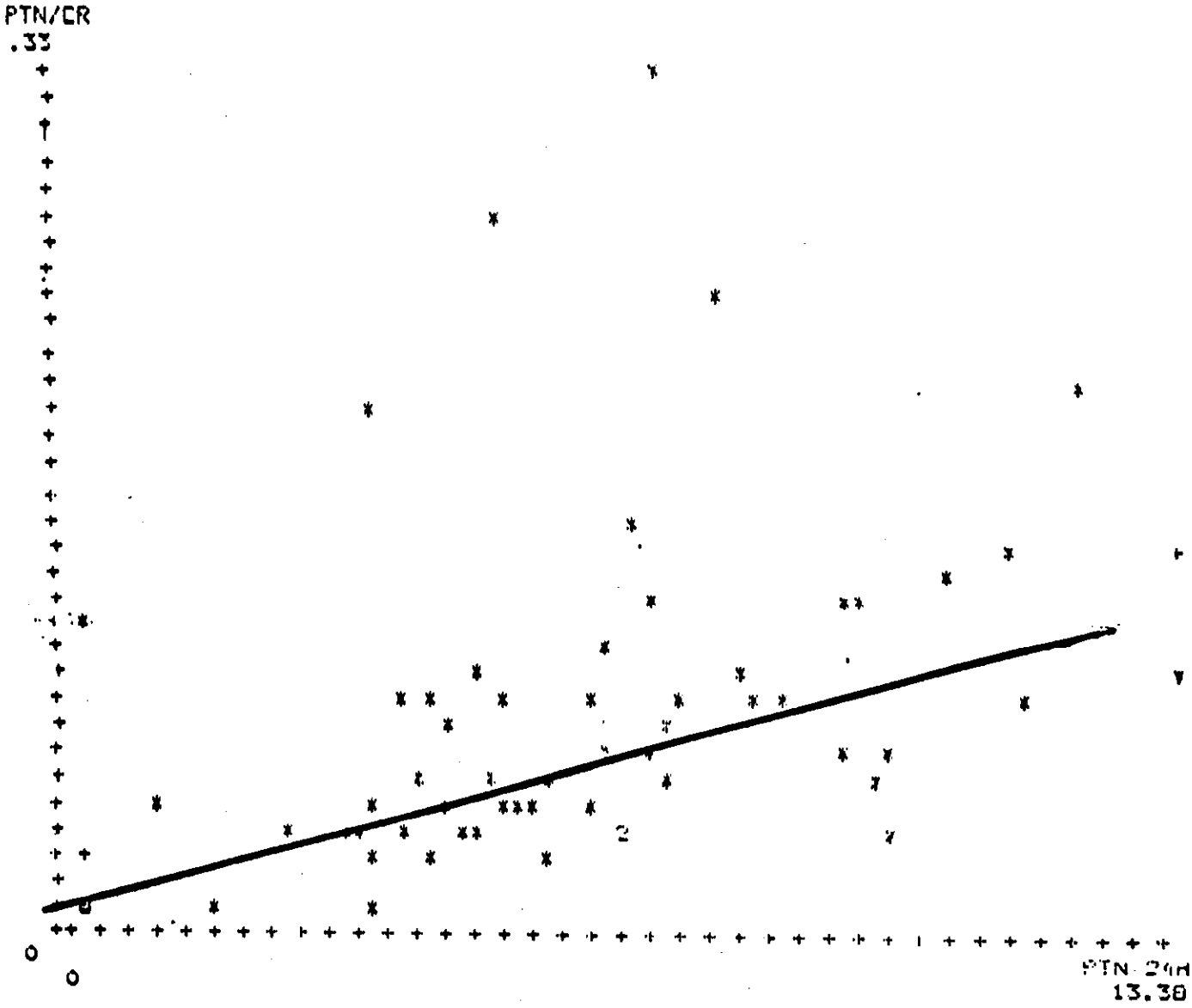

Fig. (1): Relation between protein/creatinine ratio and PTN 24 hr. in control group.

Regression equation (shown by +'s on scatterplot):

Intercept. = 1.7586827843421E-02 Slope = 9.6601662136406E-03

r = .4795 r squared = .2299.

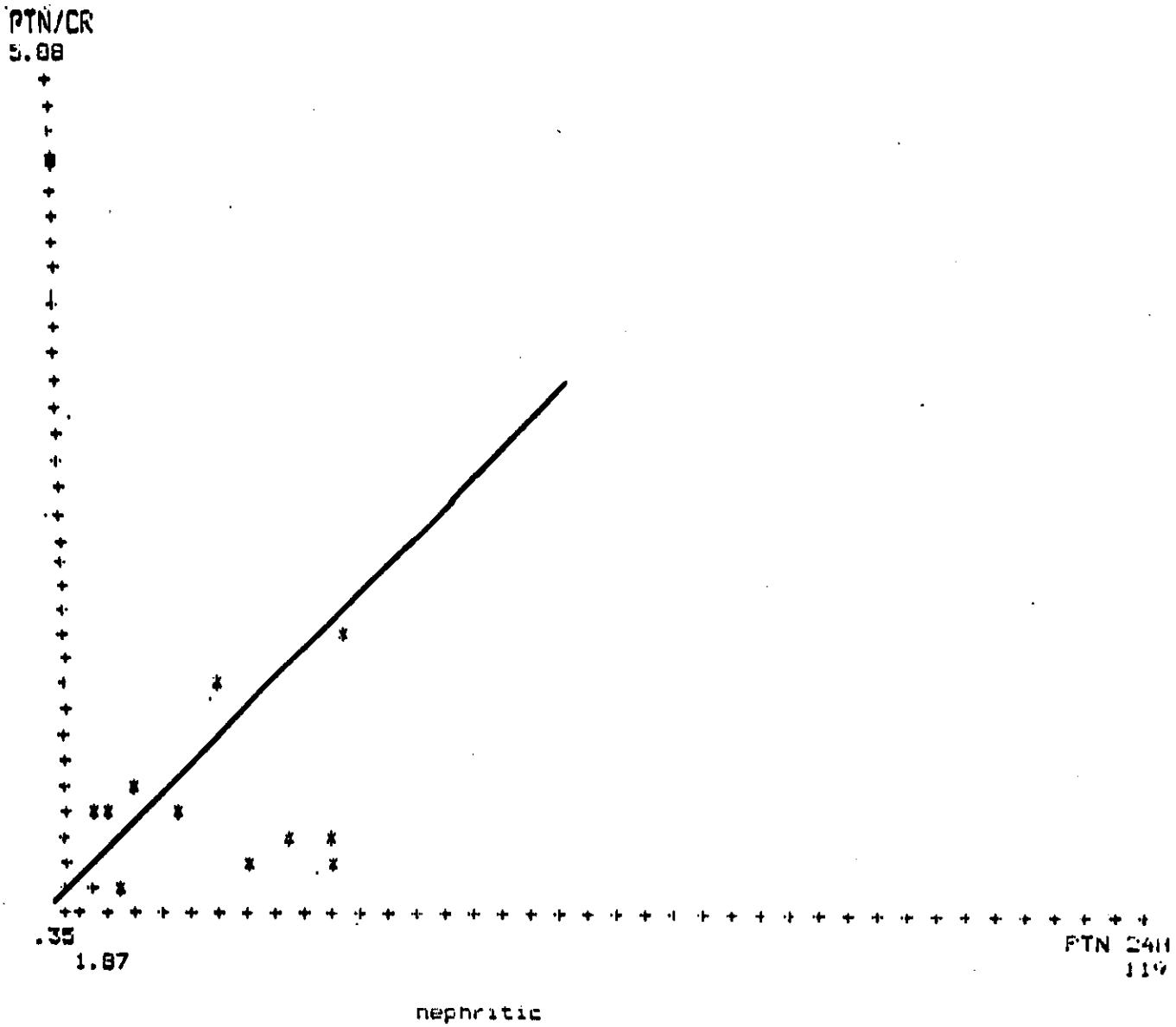

Fig. (2): Relation between protein/creatinine ratio and PTN 24 hr. in nephritic group.

Regression equation (shown by +'s on scatterpint):

Intercept. = .2683069252214 Slope = 4.3842773447094E-02

r = .9119 r squared = .8316

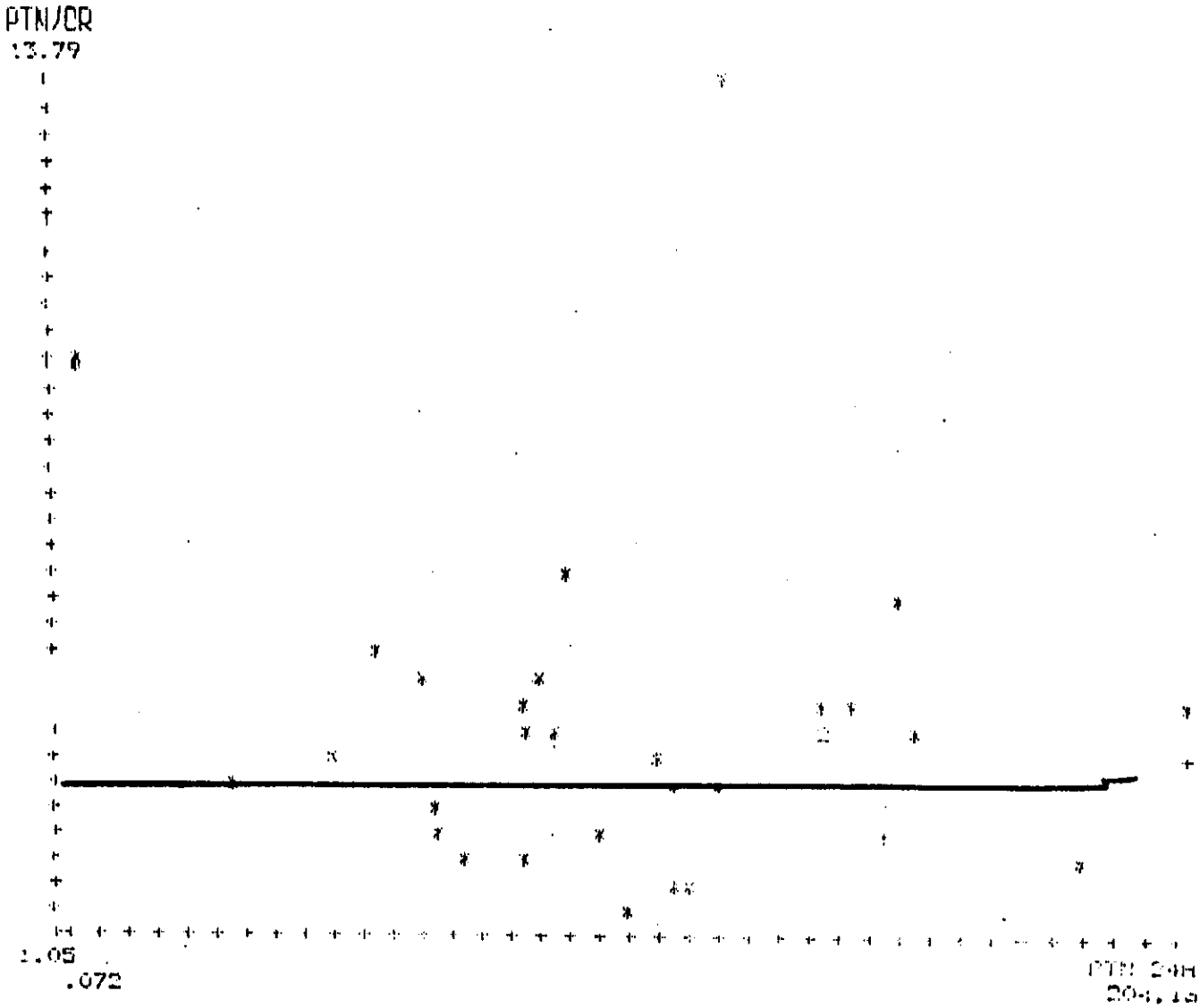

Fig. (3): Relation between protein/creatinine ratio and PTN 24 hr. in nephrotic group.

Regression equation (shown by +'s on scatterplot):

Intercept. = 4.6141460558815 Slope =-5.9730989895271E-03

r = -.1107 r squared = .0123

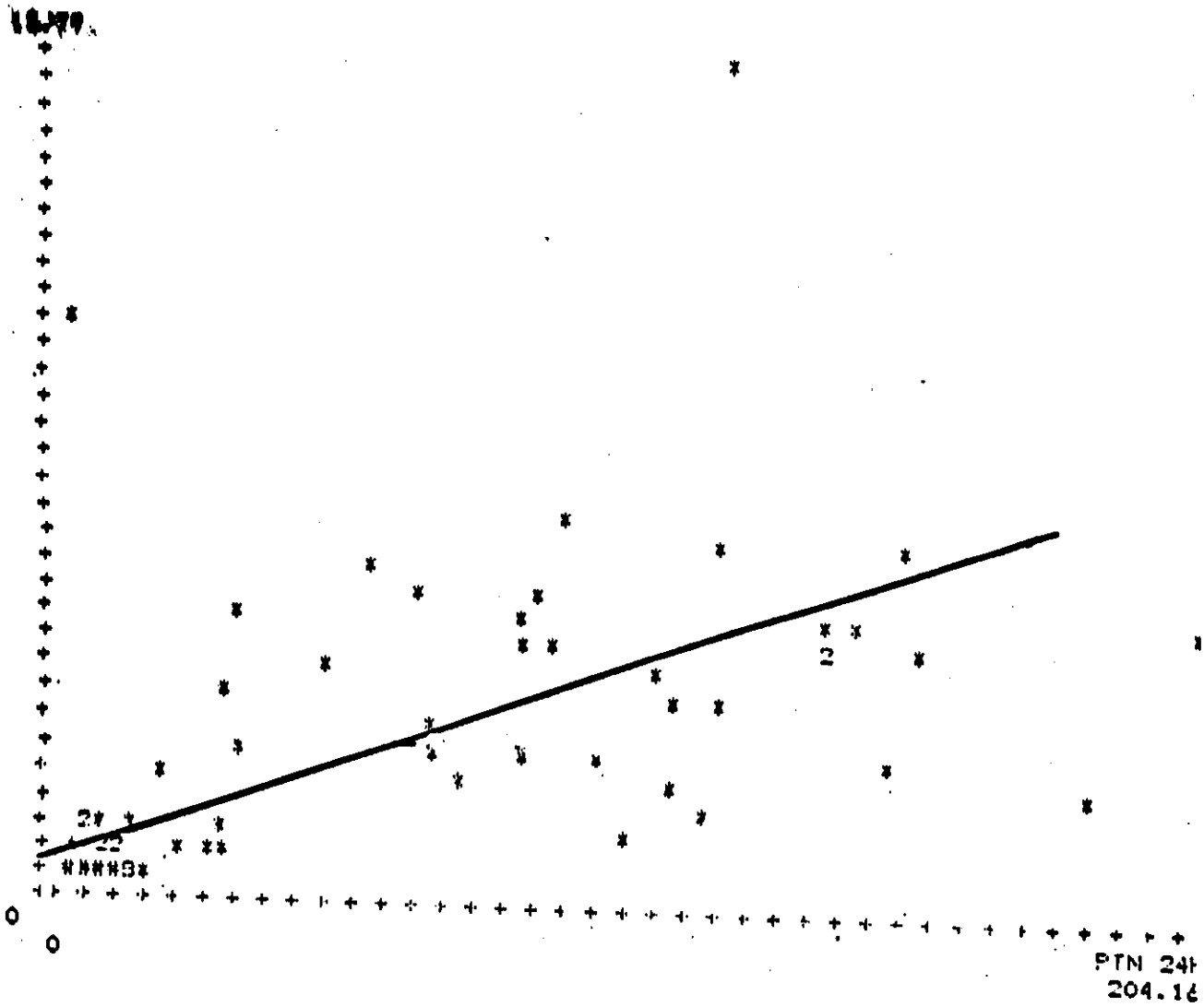

Fig. (4): Relation between protein/creatinine ratio and PTN 24 hr. in the 3 studied groups.

Regression equation (shown by +'s on scatterplot):

Intercept. = .3086246724541 Slope = 2.9865775660678E-02

r = .6668 r squared = .4447