

RESULTS

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The results of the present work can be described as follow:

Table (1): Show the number, age and sex of different group of the work

	Total number	Age	Male		Female	
			Number	Age	Number	Age
Reference group	20	30-57	12	30-53	8	31-57
Study group I	20	23-57	14	28-57	6	23-52
Study group II	80	21-59	47	21-59	33	21-56
Study group III	18	32-59	11	32-59	7	29-56

Table (2): Show the sex statistical difference between different groups of the study.

	χ^2	P-value
Reference & gp. I	0.44	> 0.05 N.S.
Reference & gp. II	0.010	> 0.05 N.S.
Reference & gp. III	0.05	> 0.05 N.S.
gp. I & II	0.851	> 0.05 N.S.
gp. I & III	0.33	> 0.05 N.S.
gp. II & III	0.034	> 0.05 N.S.

Table (3): Show the mean and Standard deviation as well as the T- test & P value of clinical chemical studied parameters among study group I and reference group.

	Reference group	Study group I	T	P-value
	Mean $\pm$ S.D	Mean $\pm$ S.D.		
T. Bil.	0.58 $\pm$ 0.1989	2.205 $\pm$ 1.7361	4.1586	< 0.001 H.S.
D. bil.	0.1135 $\pm$ 0.0376	1.46 $\pm$ 1.2107	4.9716	< 0.001 H.S.
AST	33.6 $\pm$ 4.9884	135.7 $\pm$ 113.7093	4.0117	< 0.001 H.S.
ALT	29.95 $\pm$ 6.5653	128.6 $\pm$ 133.8013	3.2933	< 0.01 H.S.
ALP	55.25 $\pm$ 16.0783	135.85 $\pm$ 58.5332	5.9382	< 0.001 H.S.
γ G.T.	24.9 $\pm$ 3.1439	67.45 $\pm$ 38.2987	4.9519	< 0.001 H.S.
α G.S.T.	1322.6 $\pm$ 184.2965	2185.75 $\pm$ 662.3945	5.6143	< 0.001 H.S.
T.G.S.T.	8.07 $\pm$ 1.8236	16.89 $\pm$ 6.4824	5.8574	< 0.001 H.S.
Age	41.15 $\pm$ 7.6315	39.85 $\pm$ 10.1943	0.4565	> 0.05 N.S

Table (4): Show the mean and standard deviation as well as the T -test & p-value of clinical chemical studied parameters among study group II and reference group.

	Reference group	Study group II	T	P-value
	Mean $\pm$ S.D	Mean $\pm$ S.D.		
T. Bil.	0.58 $\pm$ 0.1989	3.1488 $\pm$ 3.2	3.5746	< 0.001 H.S.
D. bil.	0.1135 $\pm$ 0.0376	1.8422 $\pm$ 2.3083	3.3364	< 0.001 H.S.
AST	33.6 $\pm$ 4.9884	112.075 $\pm$ 87.5873	3.9901	< 0.001 H.S.
ALT	29.95 $\pm$ 6.5653	110.1875 $\pm$ 96.2927	3.7102	< 0.001 H.S.
ALP	55.25 $\pm$ 16.0783	106.8625 $\pm$ 48.6493	4.6656	< 0.001 H.S.
γ G.T.	24.9 $\pm$ 3.1439	62.4750 $\pm$ 36.8421	4.5398	< 0.001 H.S.
α G.S.T.	1322.6 $\pm$ 184.2965	2020.9750 $\pm$ 706.6675	4.4235	< 0.001 H.S.
T.G.S.T.	8.07 $\pm$ 1.82360	15.2850 $\pm$ 6.9164	4.6091	< 0.001 H.S.
Age	41.15 $\pm$ 7.6315	39.5750 $\pm$ 10.8555	0.6111	> 0.05 N.S.

Table (5): Show the mean and standard deviation as well as the T-test & p-value of clinical chemical studied parameters among study group III and reference group.

	Reference group	Study group III	T	P-value
	Mean $\pm$ S.D	Mean $\pm$ S.D.		
T. Bil.	0.58 $\pm$ 0.1989	1.0833 $\pm$ 0.5512	3.8213	< 0.001 H.S.
D. bil.	0.1135 $\pm$ 0.0376	0.3889 $\pm$ 0.3692	3.3214	< 0.01 H.S.
AST	33.6 $\pm$ 4.9884	54.1111 $\pm$ 44.0052	2.0729	< 0.05 S.
ALT	29.95 $\pm$ 6.5653	44.944 $\pm$ 35.1057	1.8768	< 0.05 S.
ALP	55.25 $\pm$ 16.0783	76.3333 $\pm$ 42.035	2.0827	< 0.05 S.
γ G.T.	24.9 $\pm$ 3.1439	36.2222 $\pm$ 18.0866	2.7577	< 0.01 H.S.
α G.S.T.	1322.6 $\pm$ 184.2965	1798.8889 $\pm$ 713.5754	2.8841	< 0.01 H.S.
T.G.S.T.	8.07 $\pm$ 1.8236	12.9 $\pm$ 7.0063	2.9771	< 0.01 H.S.
Age	41.15 $\pm$ 7.6315	43.6111 $\pm$ 8.4166	0.9455	> 0.05 N.S.

Table (6): Show the mean & Standard deviation as well as the T test & P value of clinical chemical studied parameters among study group I and study group II.

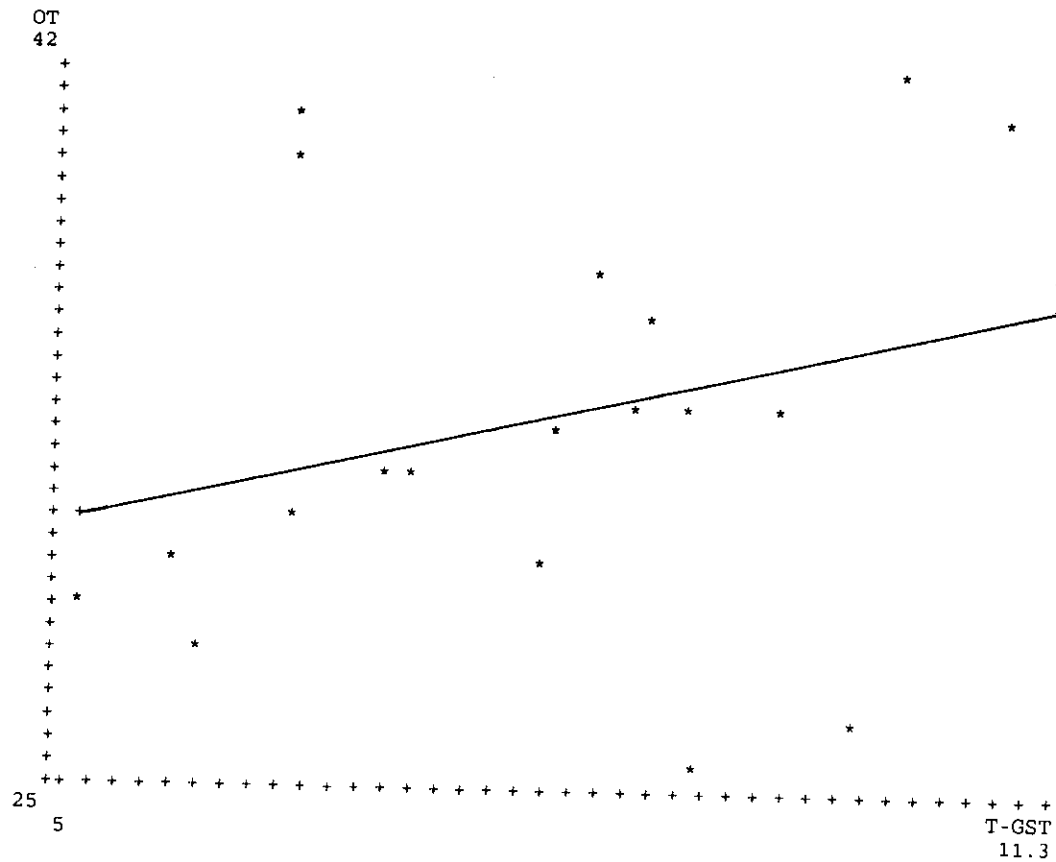
	Study group I	Study group II	T	P-value
	Mean $\pm$ S.D	Mean $\pm$ S.D.		
T. Bil.	2.205 $\pm$ 1.7361	3.1488 $\pm$ 3.2	1.2697	> 0.05
D. bil.	1.46 $\pm$ 1.2107	1.8422 $\pm$ 2.3083	0.7145	N.S.
AST	135.7 $\pm$ 113.7093	112.075 $\pm$ 87.5873	1.0137	> 0.05
ALT	128.6 $\pm$ 133.8013	110.1875 $\pm$ 96.2927	0.704	N.S.
ALP	135.85 $\pm$ 58.5332	106.8625 $\pm$ 48.6493	2.2862	> 0.05
γ G.T.	67.45 $\pm$ 38.2987	26.4750 $\pm$ 36.8421	0.536	N.S.
α G.S.T.	2185.75 $\pm$ 662.3945	2020.975 $\pm$ 706.6675	0.8923	> 0.05
T.G.S.T.	16.89 $\pm$ 6.4824	15.2850 $\pm$ 6.9164	0.9394	N.S.
Age	39.85 $\pm$ 10.1943	39.5556 $\pm$ 10.7889	0.1104	> 0.05
				N.S.

Table (7): Show the mean & standard deviation as well as the T -test & p-value of clinical chemical studied parameters among study group I and study group III

	Study group I	Study group III	T	P-value
	Mean $\pm$ S.D	Mean $\pm$ S.D.		
T. Bil.	2.205 $\pm$ 1.7361	1.0833 $\pm$ 0.5512	2.6216	< 0.001 H.S.
D. bil.	1.46 $\pm$ 1.2107	0.3889 $\pm$ 0.3692	3.6015	< 0.001 H.S.
AST	135.7 $\pm$ 113.7093	54.1111 $\pm$ 44.0052	2.8547	< 0.001 H.S.
ALT	128.6 $\pm$ 133.8013	44.9444 $\pm$ 35.1057	2.5709	< 0.001 H.S.
ALP	135.85 $\pm$ 58.5332	76.3333 $\pm$ 42.035	3.5635	< 0.001 H.S.
γ G.T.	67.45 $\pm$ 38.2987	36.2222 $\pm$ 18.0866	3.1542	< 0.001 H.S.
α G.S.T.	2185.75 $\pm$ 662.3945	1798.8889 $\pm$ 713.5754	1.7331	< 0.05 S
T.G.S.T.	16.89 $\pm$ 6.4824	12.9 $\pm$ 7.0063	1.8235	< 0.05 S
Age	39.85 $\pm$ 10.1943	43.6111 $\pm$ 8.4166	1.2320	> 0.05 N.S

Table (8): Show the mean & standard deviation as well as the T-test & P-value of clinical chemical studied parameters among study group II and study group III.

	Study group II Mean $\pm$ S.D	Study group III Mean $\pm$ S.D.	T	P-value
T. Bil.	3.1488 $\pm$ 3.2	1.0833 $\pm$ 0.5512	2.7187	< 0.001 H.S.
D. bil.	1.8422 $\pm$ 2.3083	0.3889 $\pm$ 0.3692	2.6532	< 0.01 H.S.
AST	112.075 $\pm$ 87.5873	54.1111 $\pm$ 44.0052	2.7235	< 0.01 H.S.
ALT	110.1875 $\pm$ 96.29270	44.9444 $\pm$ 35.1057	2.823	< 0.01 H.S.
ALP	106.8625 $\pm$ 48.6493	76.3333 $\pm$ 42.035	2.4614	< 0.01 H.S.
γ G.T.	62.475 $\pm$ 36.8421	36.2222 $\pm$ 18.0866	2.9359	< 0.01 H.S.
α G.S.T.	2029.975 $\pm$ 706.6675	1798.8889 $\pm$ 713.5754	1.2513	> 0.05 N.S
T.G.S.T.	15.285 $\pm$ 6.9164	12.9 $\pm$ 7.0063	1.3188	> 0.05 N.S
Age	39.575 $\pm$ 10.8555	43.6111 $\pm$ 8.4166	1.4784	> 0.05 N.S



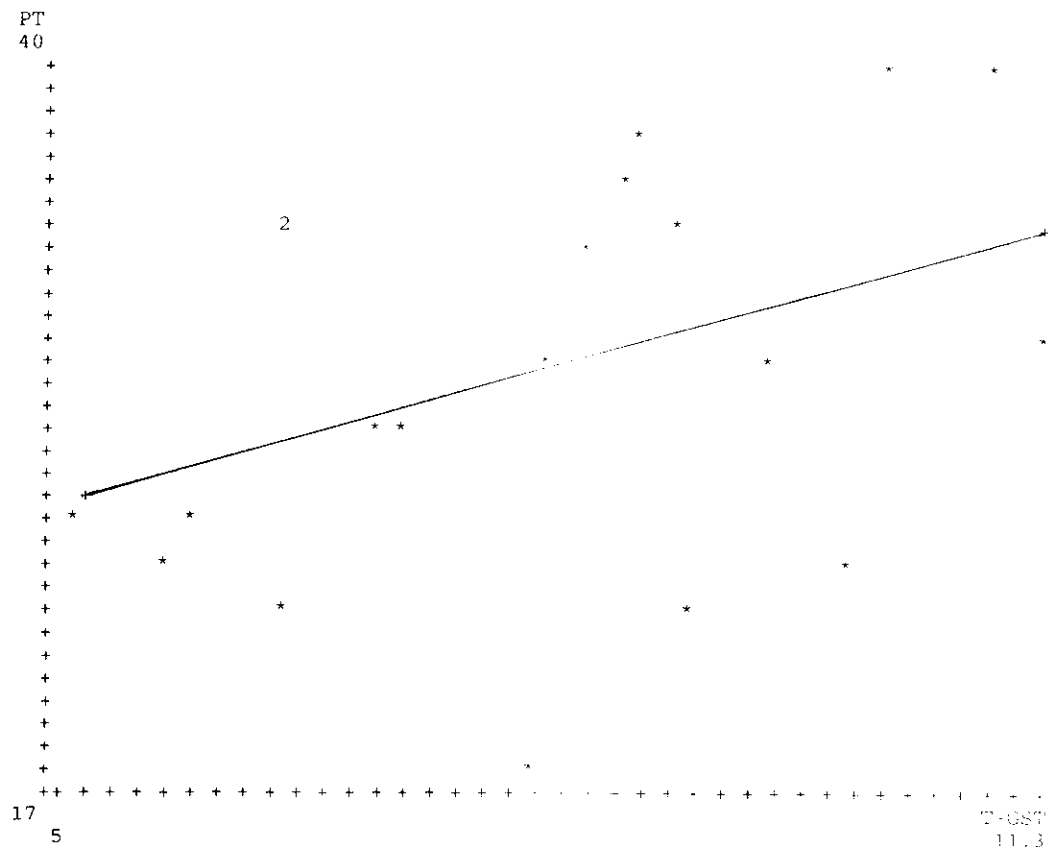


Fig. (7): Regression analysis showing correlation between ALT (PT) and T-GST among reference group (Intercept = 18.165; SLOPE = 1.4604; $r = 0.4056$).

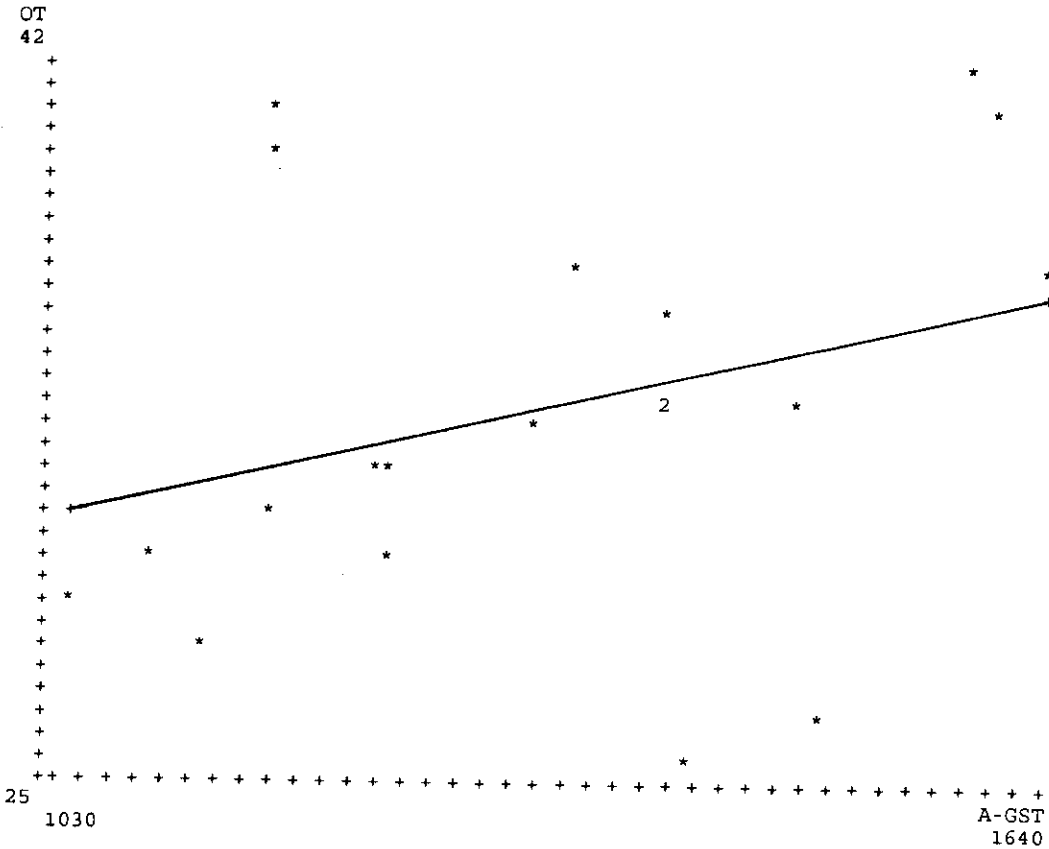


Fig. (8): Regression analysis showing correlation between AST (OT) and A-GST among reference group (Intercept = 21.697; SLOPE = 0.0089; $r = 0.3325$).

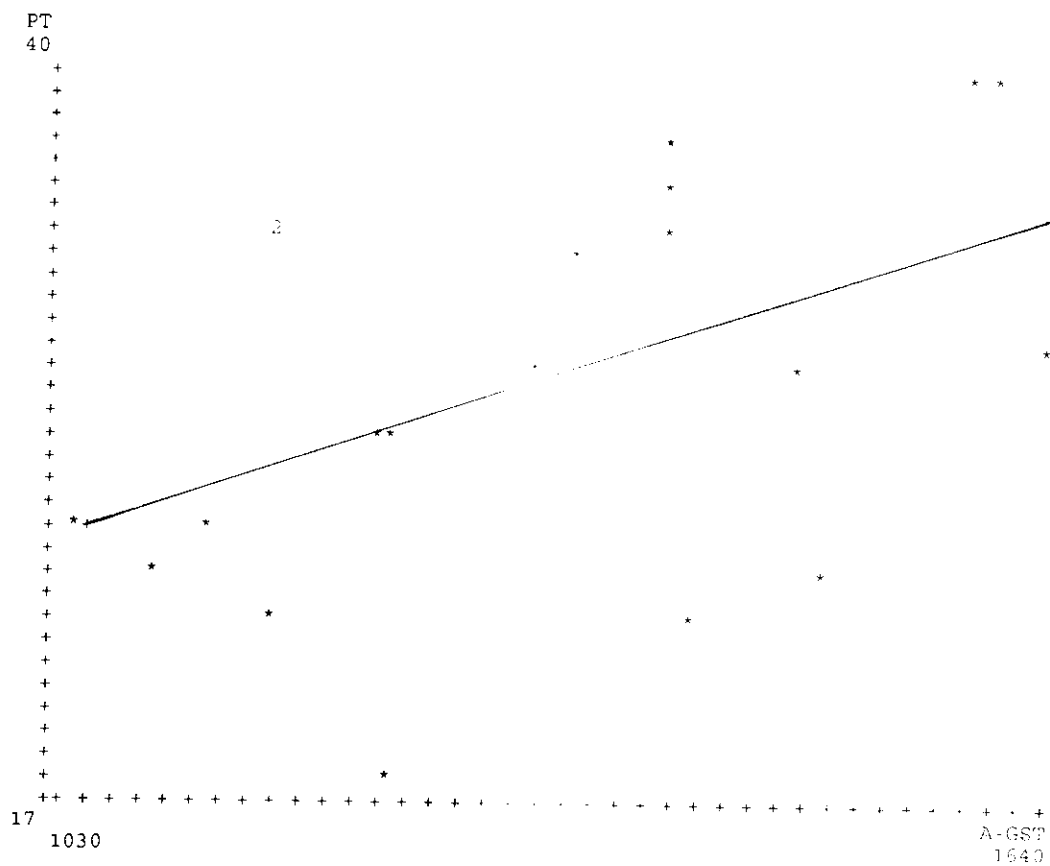


Fig. (9): Regression analysis showing correlation between ALT (PT) and A-GST among reference group (Intercept = 7.743; SLOPE = 0.0017; $r = 0.4713$).

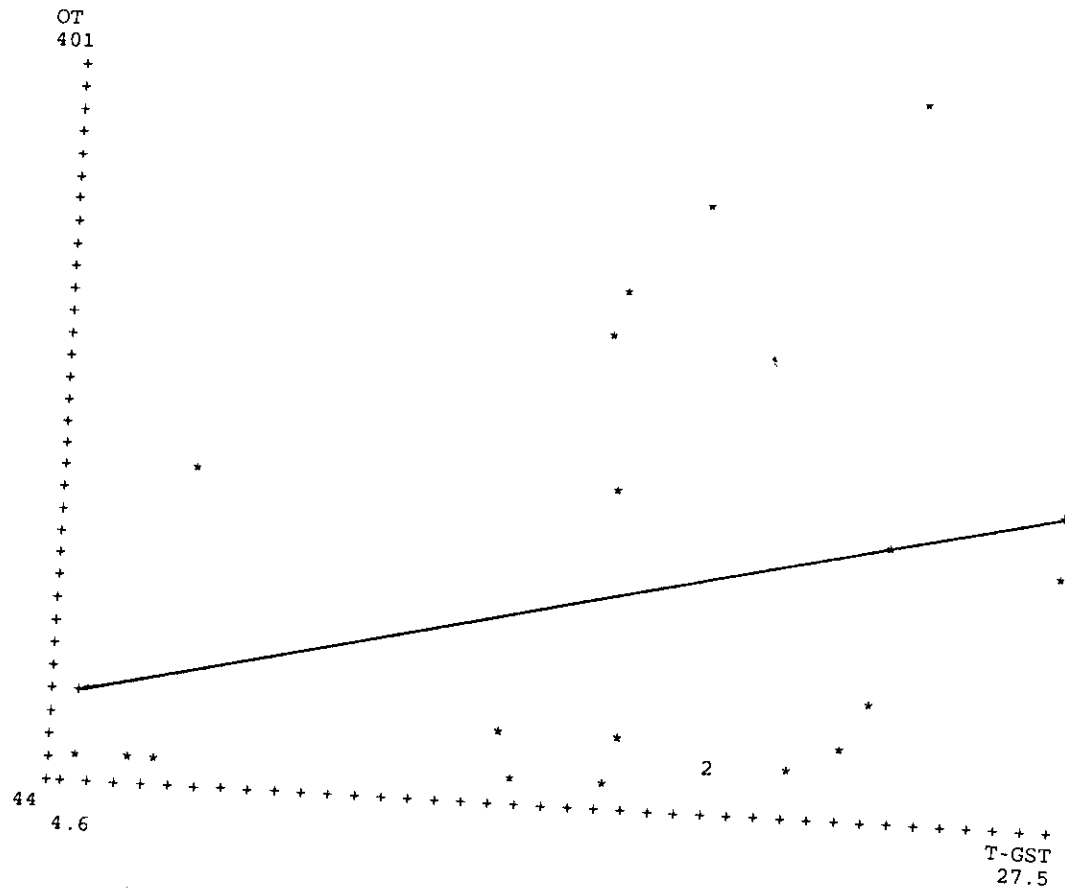


Fig. (10): Regression analysis showing correlation between AST (OT) and T-GST among study group I patients (Intercept = 51.128; SLOPE = 5.0072; $r = 0.2855$).

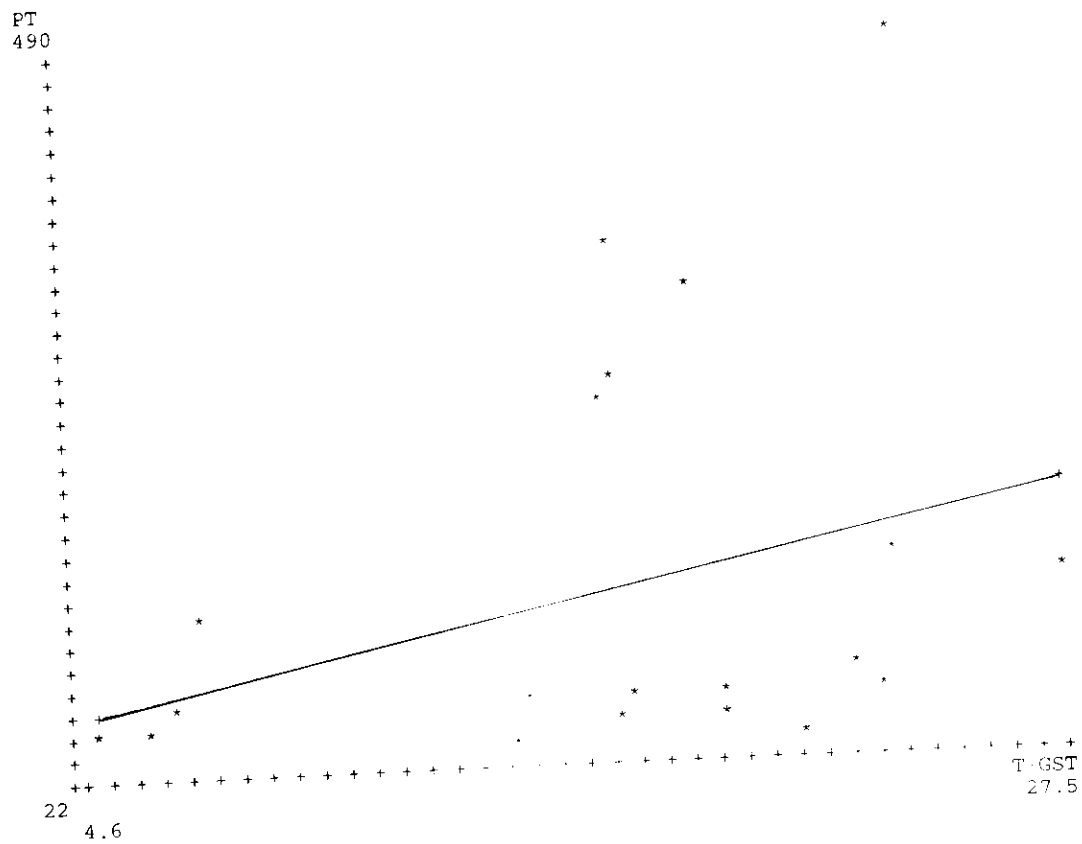


Fig. (11): Regression analysis showing correlation between ALT (PT) and T-GST among study group I patients (Intercept = 32.455; SLOPE = 5.924; $r = 0.2758$).

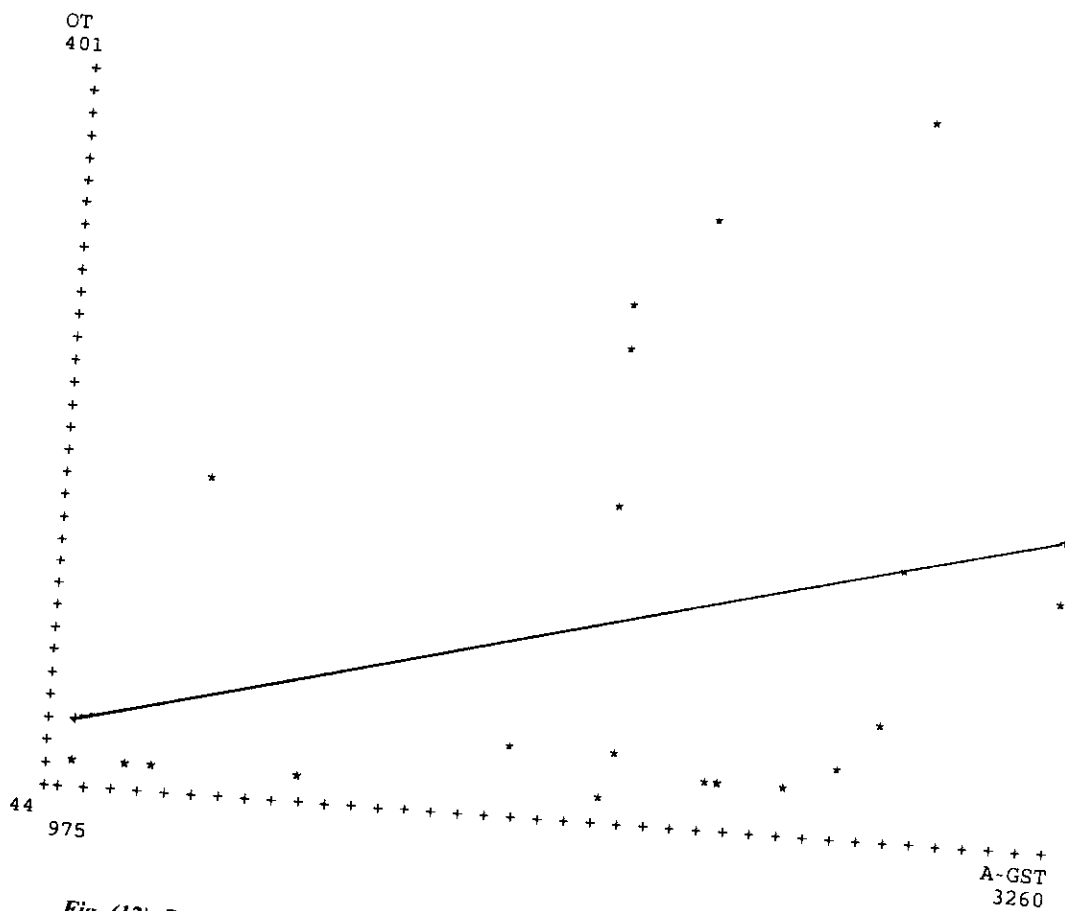


Fig. (12): Regression analysis showing correlation between AST (OT) and A-GST among study group I patients (Intercept = 20.472; SLOPE = 5.2718; $r = 0.3071$).

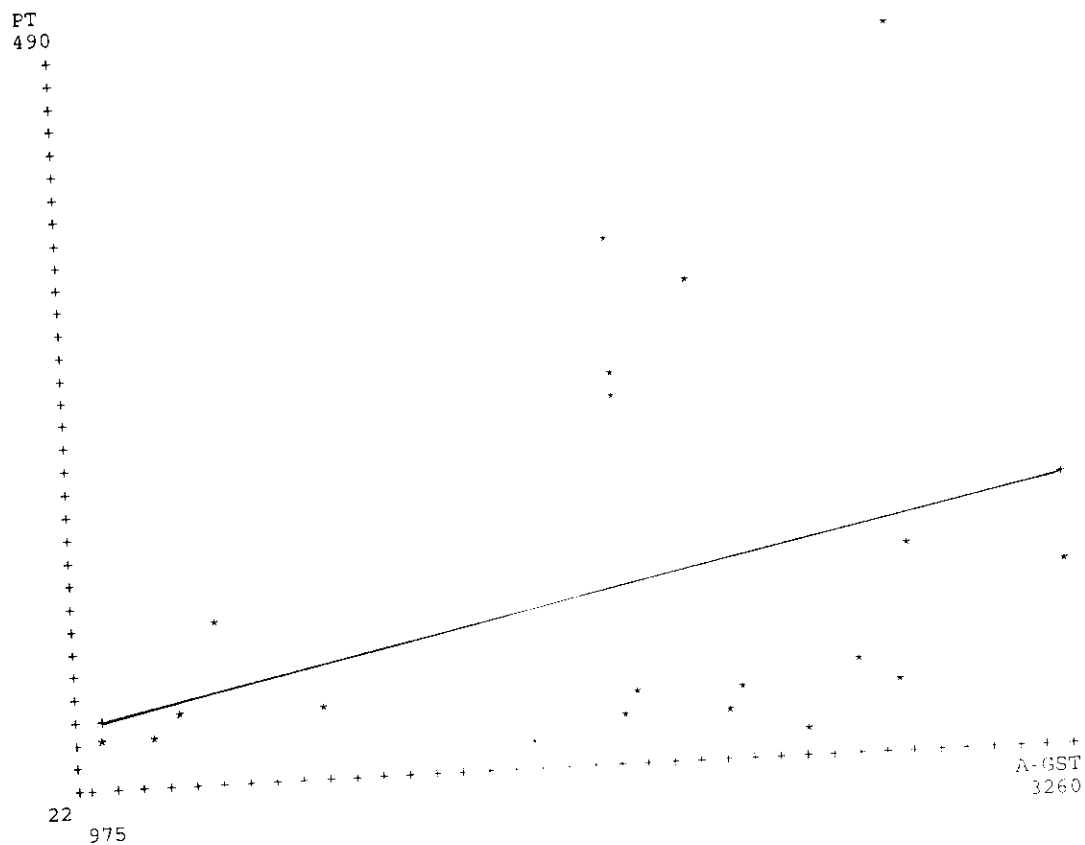


Fig. (13): Regression analysis showing correlation between ALT (PT) and A-GST among study group I patients (Intercept = 13859; SLOPE = 0.0582; $r = 0.2881$).

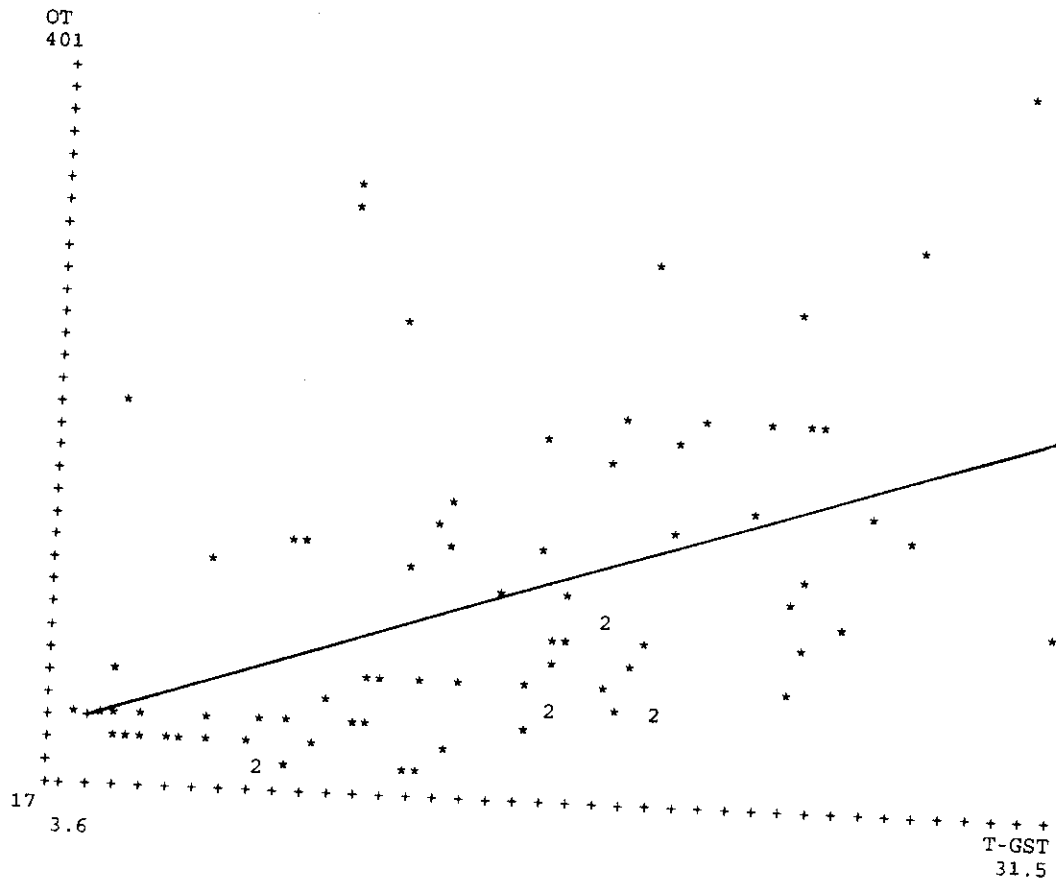


Fig. (14): Regression analysis showing correlation between AST (OT) and T-GST among study group II patients (Intercept = 17.642; SLOPE = 6.1782; $r = 0.4879$).

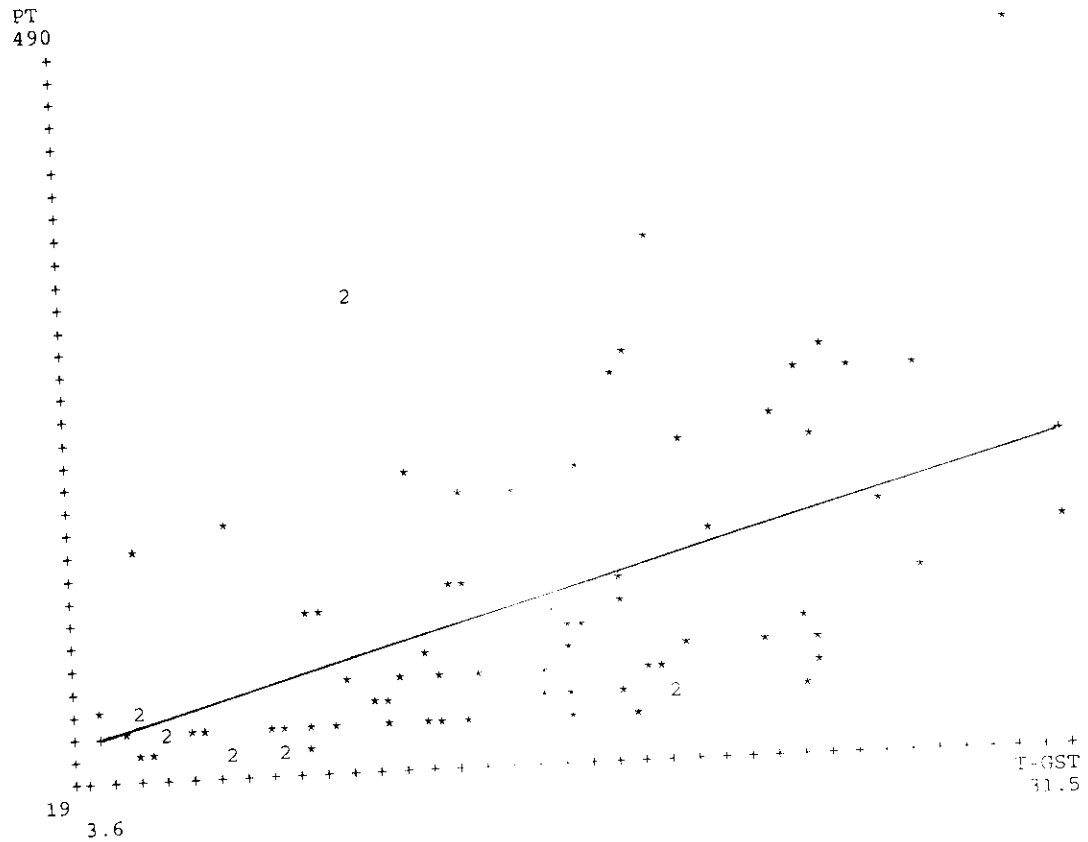


Fig. (15): Regression analysis showing correlation between ALT (PT) and T-GST among study group II patients (Intercept = 4.6555; SLOPE = 6.9043; $r = 0.4959$).

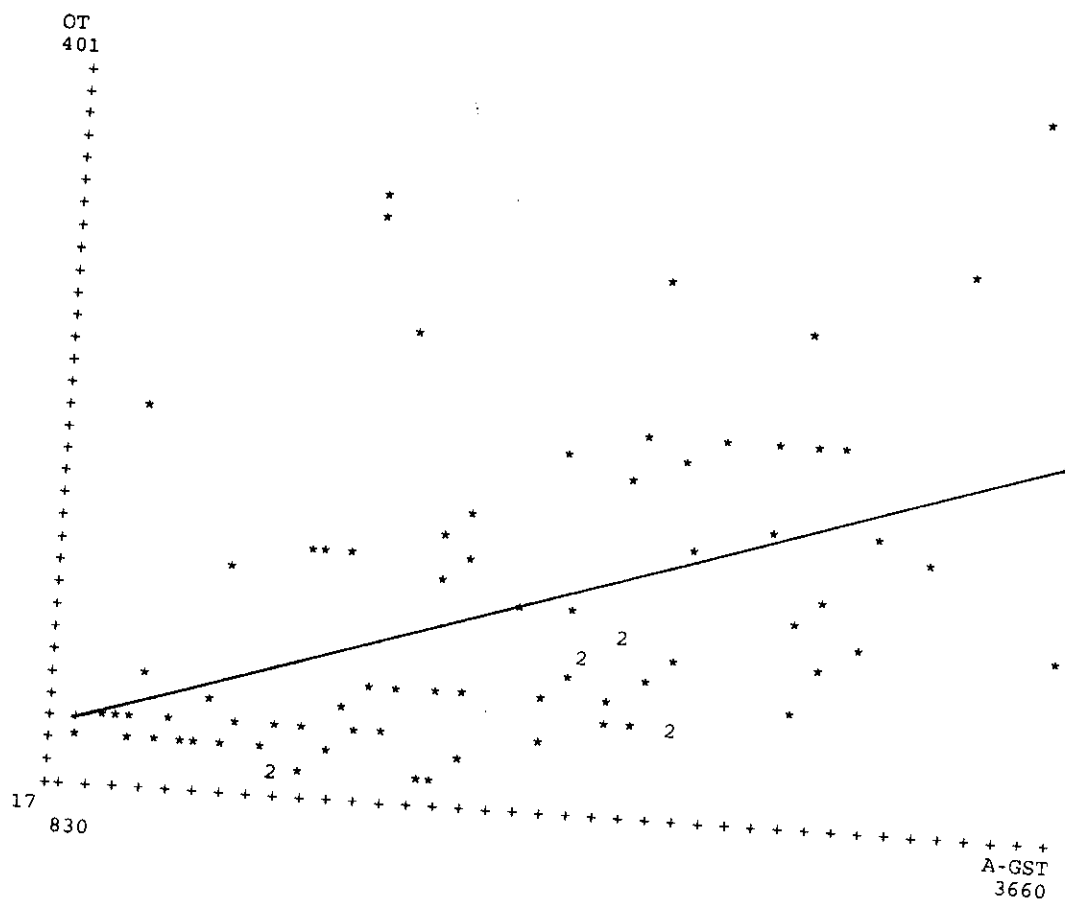


Fig. (16): Regression analysis showing correlation between AST (OT) and A-GST among study group 11 patients (Intercept = -10.999; SLOPE = 0.6063; $r = 0.4892$).

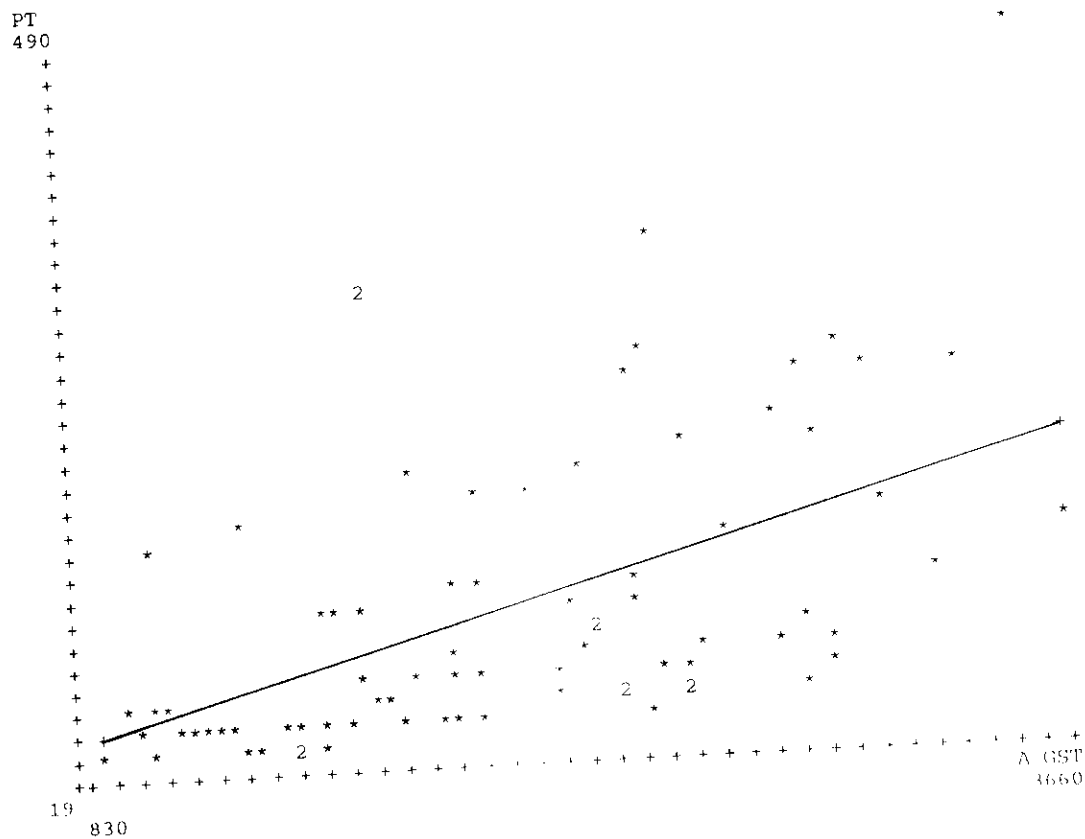


Fig. (17): Regression analysis showing correlation between ALT (PT) and A-GST among study group II patients (Intercept = -28.38; SLOPE = 6.8261; $r = 0.5010$).

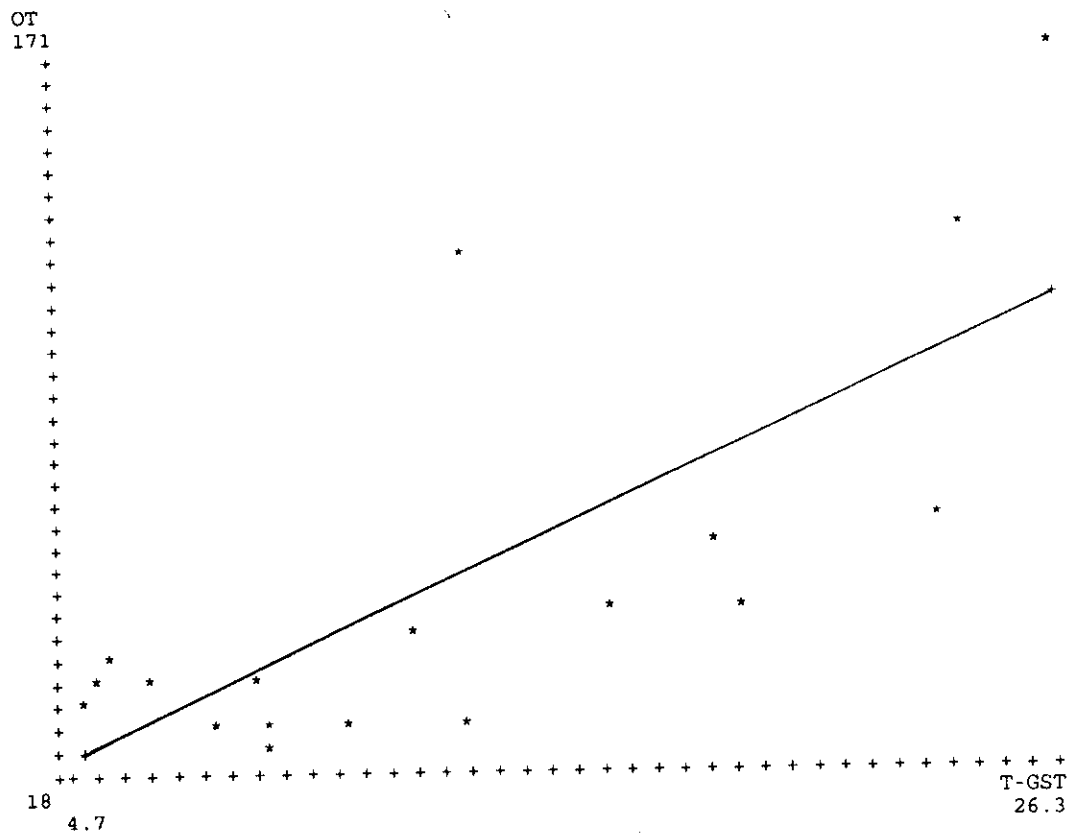


Fig. (18): Regression analysis showing correlation between AST (OT) and T-GST among study group III patients (Intercept = -6.027; SLOPE = 4.6618; $r = 0.7422$).

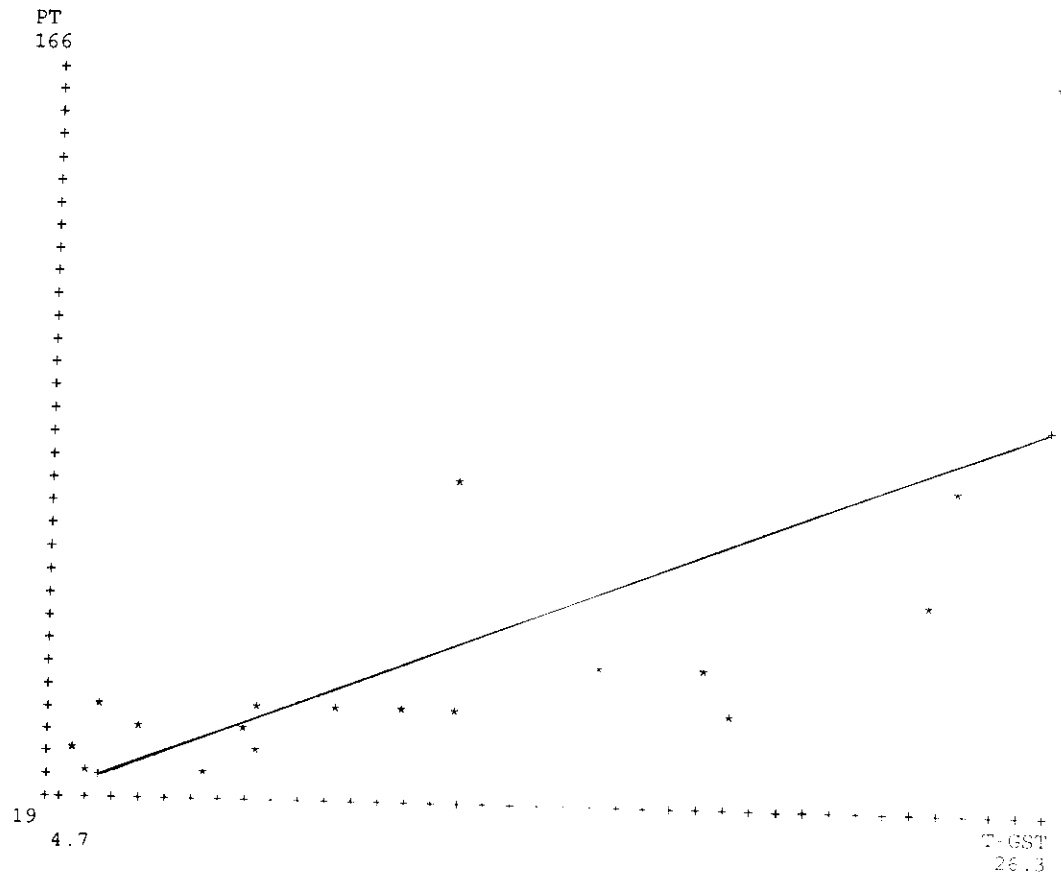


Fig. (19): Regression analysis showing correlation between ALT (PT) and T-GST among study group III patients (Intercept = -1.802, SLOPE = 3.6237; $r = 0.7232$).

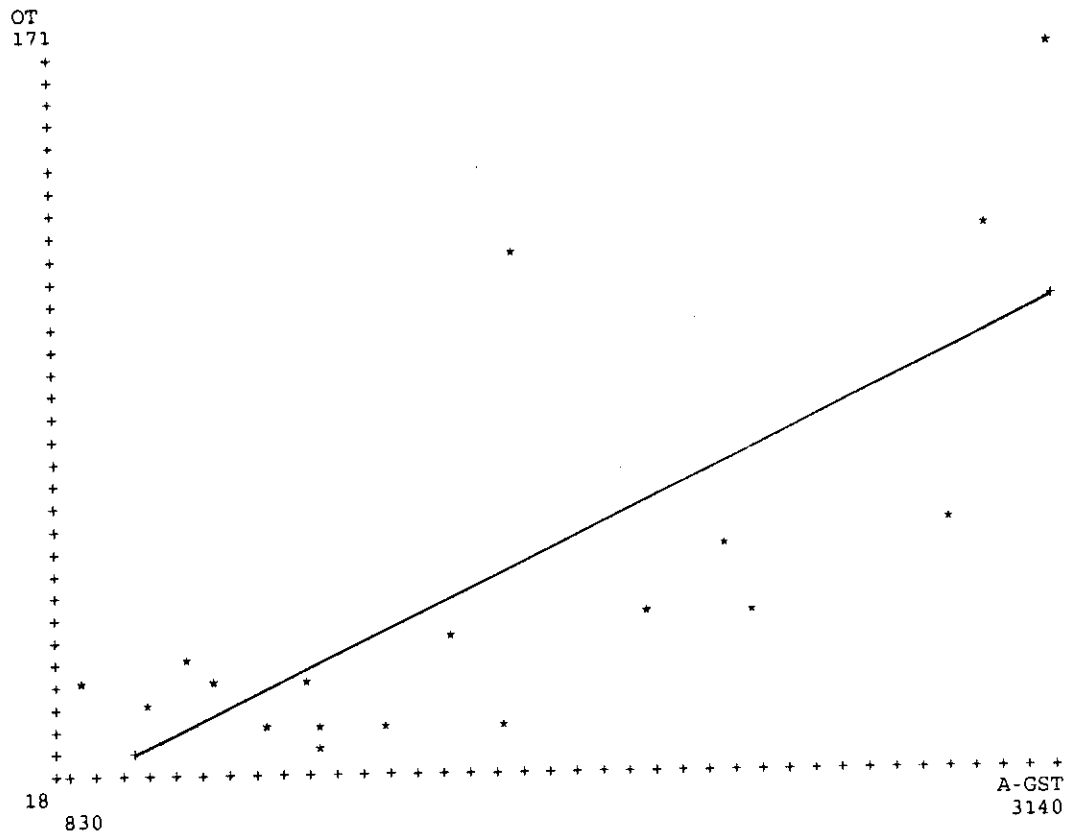


Fig. (20): Regression analysis showing correlation between AST (OT) and A-GST among study group III patients (Intercept = 27.84; SLOPE = 0.0456; $r = 0.7387$).

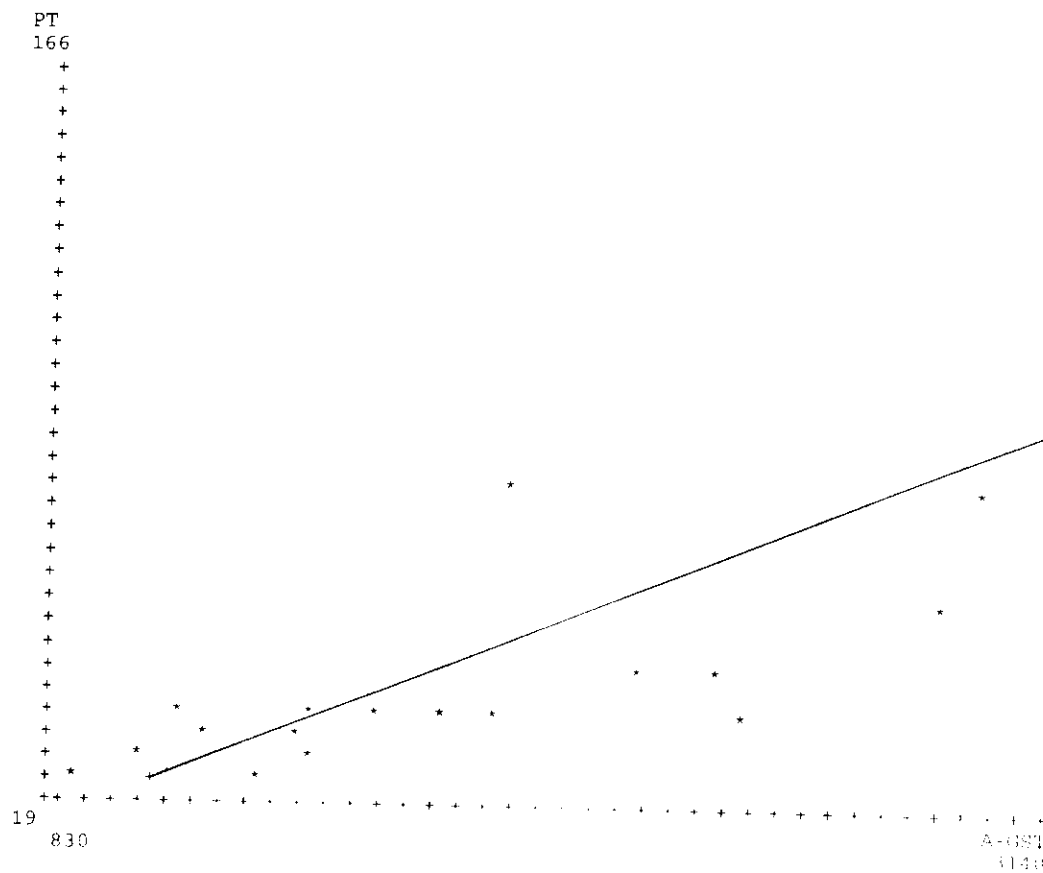


Fig. (21): Regression analysis showing correlation between ALT (PT) and A-GST among study group III patients (Intercept = -18.86; SLOPE = 0.0355; $r = 0.7210$).

Table (9): Show the sensitivity, of the studied parameters in study group I.

	Sensitivity
T. Bil	75 %
D. Bil.	100%
AST	90%
ALT	70%
ALP.	80%
γ G.T	85%
α GST	75%
T.GST	80%

Specificity was defined to be 100% as the cases were already selected.

Table (10): Show the sensitivity, of the studied parameters in study group II

	Sensitivity
T. Bil	65 ⁰ %
D. Bil.	81.25%
AST	72.5%
ALT	63.75%
ALP.	57.5 ⁰ %
γ G.T	83.75%
α GST	65 ⁰ %
T.GST	66.25%

Specificity was defined to be 100% as the cases were already selected.

Table (11): Show the sensitivity, of the studied parameters in study group III.

	Sensitivity
T. Bil	16.6' %
D. Bil.	38.8' %
AST	38.8' %
ALT	22.2' %
ALP.	27.7' %
γ G.T	61.1' %
α GST	50%
T.GST	50%

Specificity was defined to be 100% as the cases were already selected.

