Results

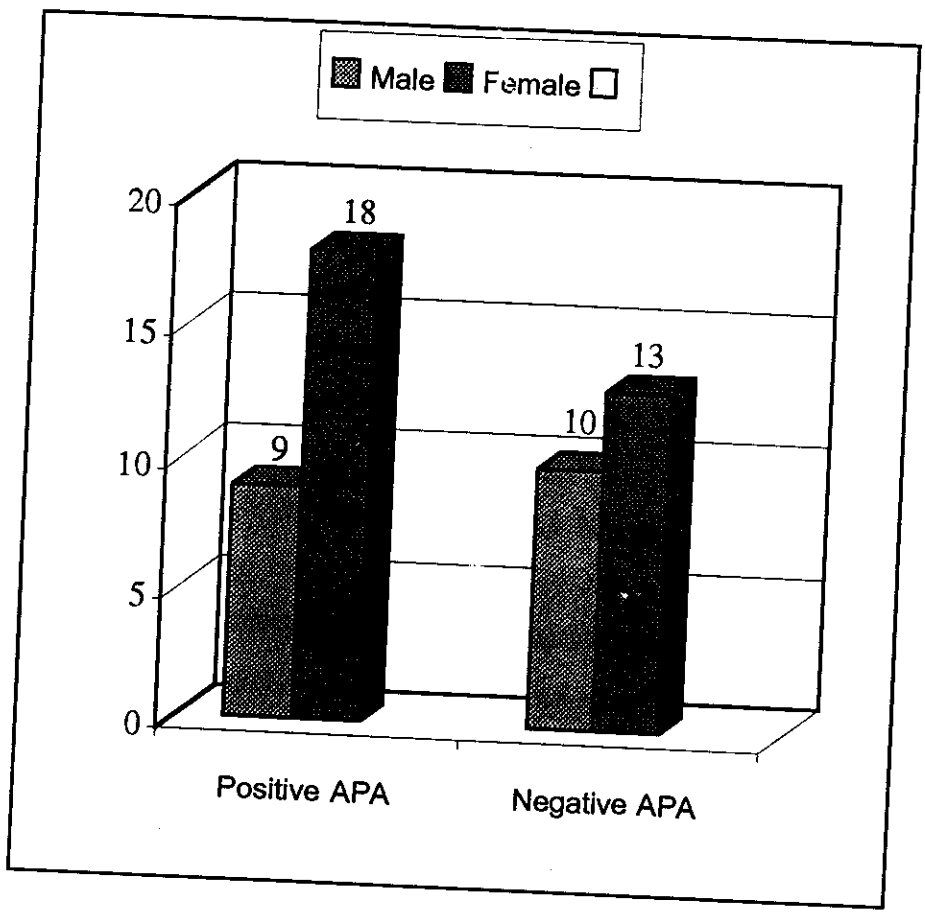

Fig (1) : Percentage of distribution of sex in relation with antiphospholipid antibodies

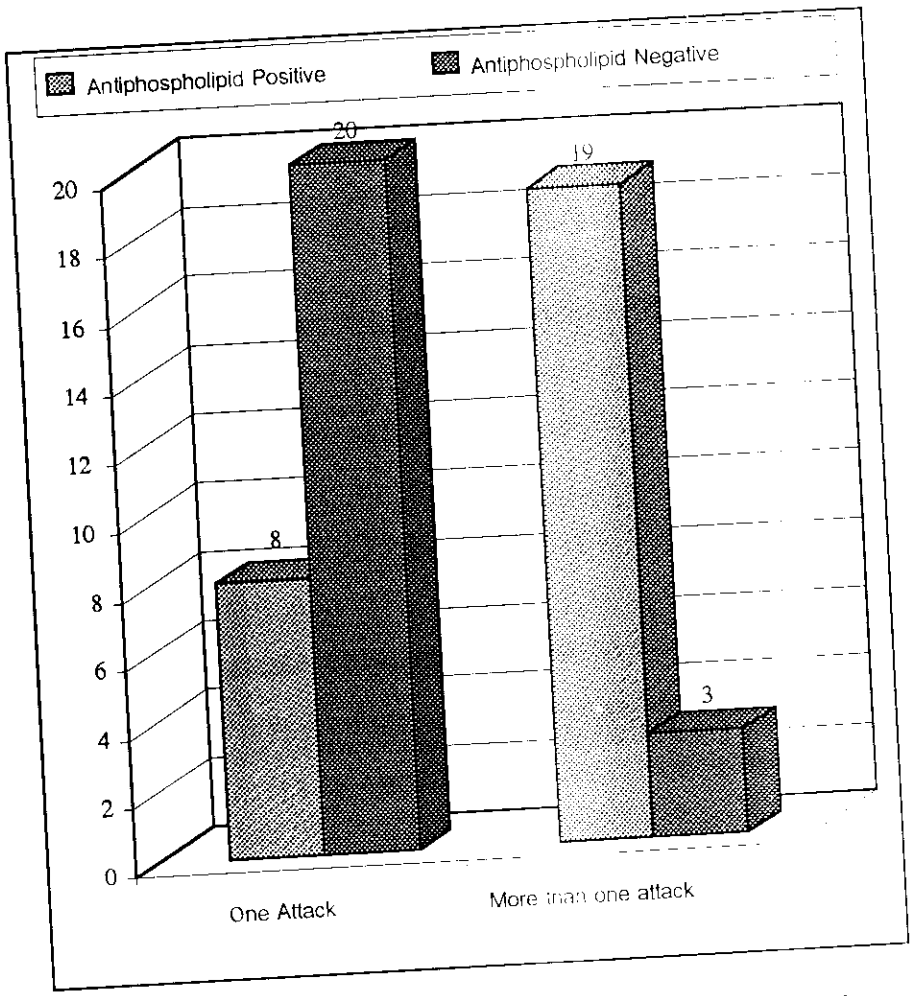

Fig (2) : Comparison between the frequency of attacks in both antiphospholipid positive patients and antiphospholipid negative patients

Table (1): Age and sex distribution in studied groups.

	Controls				Patients			
	Male		Female		Male		Female	
	$\bar{x}$	±SD	$\bar{x}$	±SD	$\bar{x}$	±SD	$\bar{x}$	±SD
Age	56.6	10.96	49.2	7 89	52.42	8.19	50.19	9.50
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Sex	5	33.3	10	66.7	19	38	31	62

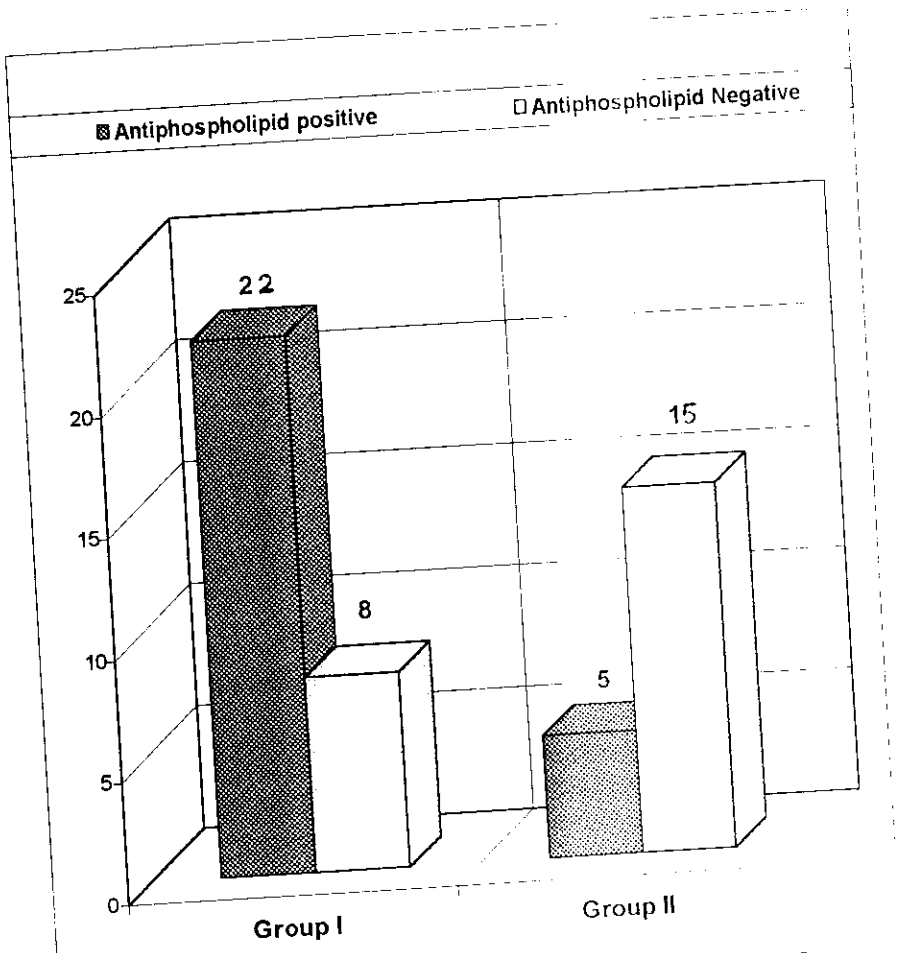

Fig. (3): Comparison between group I and group II of patients according to the presence of or absence of Antiphospholipids Abs

Table (2): Comparison between laboratory findings in control and patients.

	Control		*Patients*		*t*	*P*
	$\bar{x}$	*±SD*	$\bar{x}$	*±SD*		
PT (Seconds)	12.1	1.4	13.62	3.0	1.87	0.05*
APTT (Seconds)	31.3	4.5	36.3	13.4	1.88	0.05*
Total Cholesterol (Mg/dl)	168.3	26.6	189.3	40.8	2.88	0.01*
LDL (Mg/dl)	94.1	13.3	110.9	42.5	1.87	0.05*
HDL (Mg/dl)	51.38	5.4	54.6	15.6	2.89	0.01*
Triglycerides (Mg/dl)	102.6	25.2	122.8	30.8	1.88	0.05*
Glucose level (Mg/dl)	107.8	22.8	133.6	52.9	5.32	0.001*
Platelets count (cells/mm3)	298466.6	68837.1	191260	83968.1	5.30	0.001*
IgG "ACA" (GPL Units)	1.49	0.89	30.78	39.8	5.33	0.001*
IgM "ACA" (MPL Units)	1.42	0.28	12.4	24.81	5.33	0.001*

There is a significant difference between patients group and control group in all above parameters.

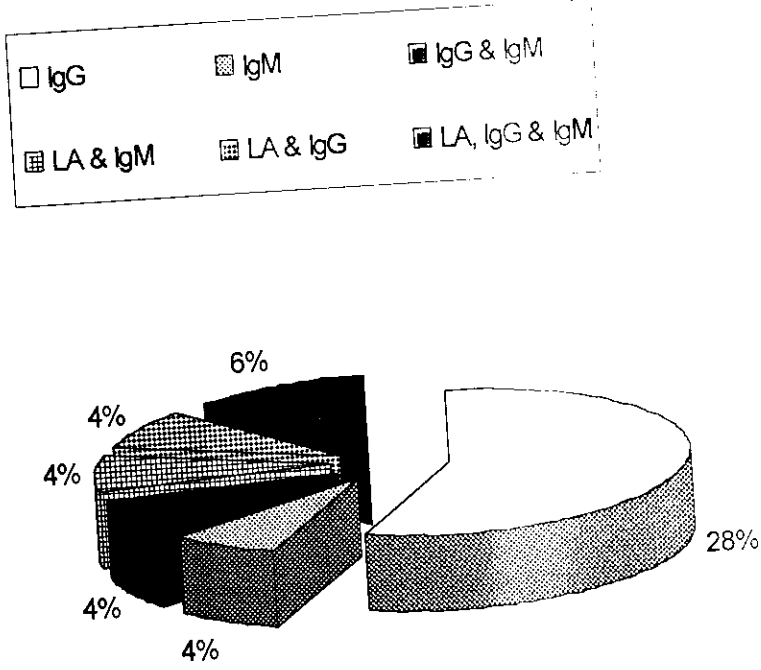

Fig. (4): Types of antiphospholipid Ab

Table (3): Comparison between laboratory findings in control and group I. (devoid of any risk factors)

	Control		Group I		T	P
	$\bar{x}$	$\pm SD$	$\bar{x}$	$\pm SD$		
PT (seconds)	12.1	1.4	13.93	3.1	1.88	0.05*
APTT (seconds)	31.3	4.5	37.0	13.4	1.87	0.05*
Total Cholesterol (Mg/dl)	168.3	26.6	183.2	22.1	1.74	0.06
LDL (Mg/dl)	94.1	13.3	103.3	23.14	1.7	0.08
HDL (Mg/dl)	51.38	5.4	55.5	12.9	1.4	0.09
Triglycerides (Mg/dl)	102.6	25.2	118.6	24.1	1.33	0.08
Glucose level (Mg/dl)	107.8	22.8	119.4	24.8	1.35	0.08
Platelets count (cells/mm3)	298466.6	71654.7	186894 .7	69376.5	5.33	0.001*
IgG "ACA" (GPL Units)	1.49	0.89	31.6	35.4	5.32	0.001*
IgM "ACA" (MPL Units)	1.42	0.28	16.83	27.1	5.32	0.001*

There is a significant difference between group I & control regarding PT, APTT, platelet count, IgG ACA, IgM ACA & no significant difference regarding the total cholesterol, HDL, LDL, triglycerides & glucose level.

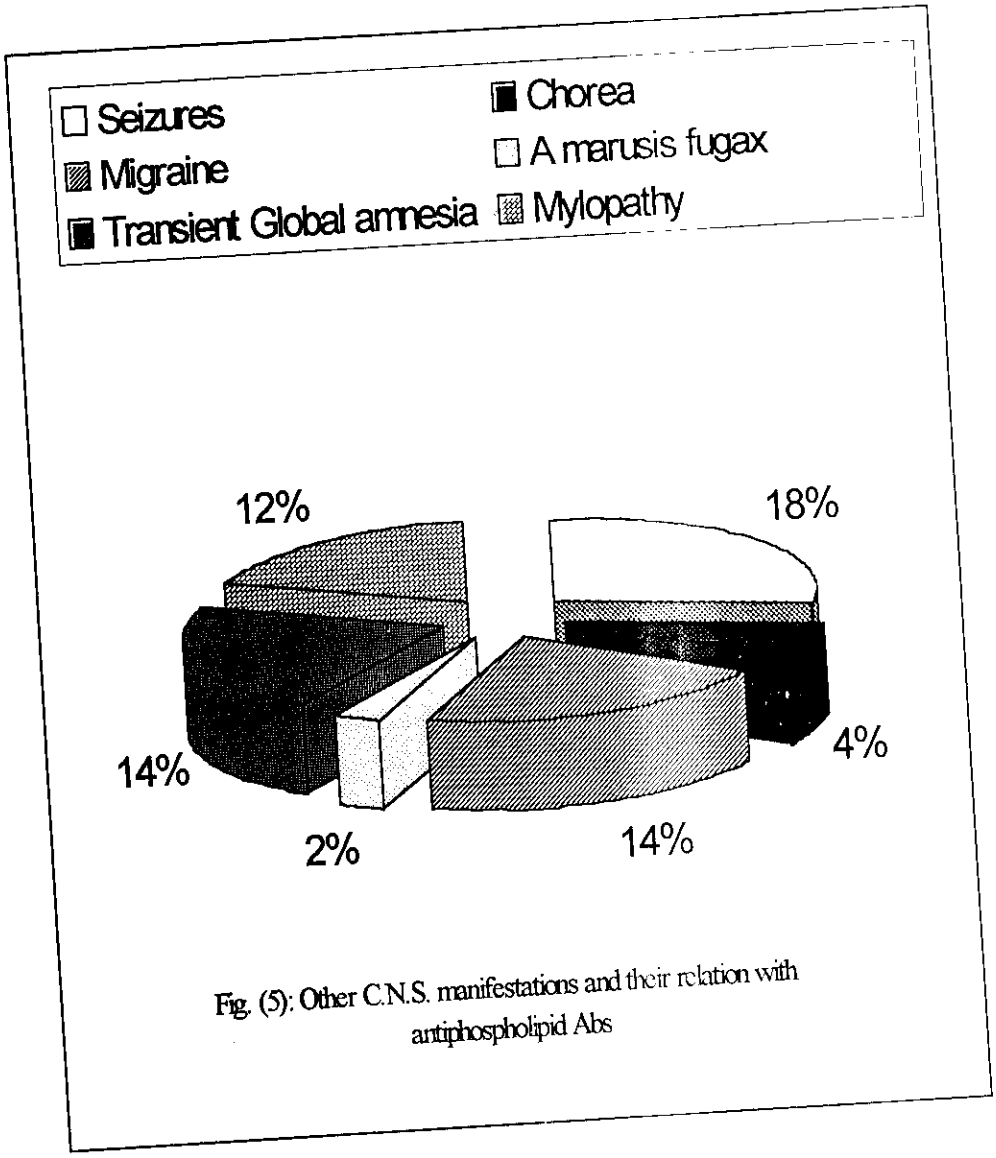

Fig. (5): Other C.N.S. manifestations and their relation with antiphospholipid Abs

Table (4): Comparison between laboratory findings in control and group II. (harbor one or more risk factors)

	Control		Group II		t	P
	$\bar{x}$	±SD	$\bar{x}$	±SD		
PT (seconds)	12.1	1.4	13.1	2.88	1.87	0.05*
APTT (seconds)	31.3	4.5	35.3	13.7	1.86	0.05*
Total Cholesterol (Mg/dl)	168.3	26.6	199.2	59.7	2.86	0.01*
LDL (Mg/dl)	94.1	13.3	123.4	61.4	2.88	0.01*
HDL (Mg/dl)	51.38	5.4	53.3	19.5	1.86	0.05*
Triglycerides (Mg/dl)	102.6	25.2	129.7	39.2	2.87	0.01*
Glucose level (Mg/dl)	107.8	22.8	156.76	75.4	5.32	0.001*
Platelets count (cells/mm3)	298466.6	68837.1	193935.5	92783.2	5.01	0.001*
IgG "ACA" (GPL Units)	1.49	0.89	29.5	47.1	5.22	0.001*
IgM "ACA" (MPL Units)	1.42	0.28	9.7	23.4	5.34	0.001*

There is a significant difference between group II and control group in all above parameters.

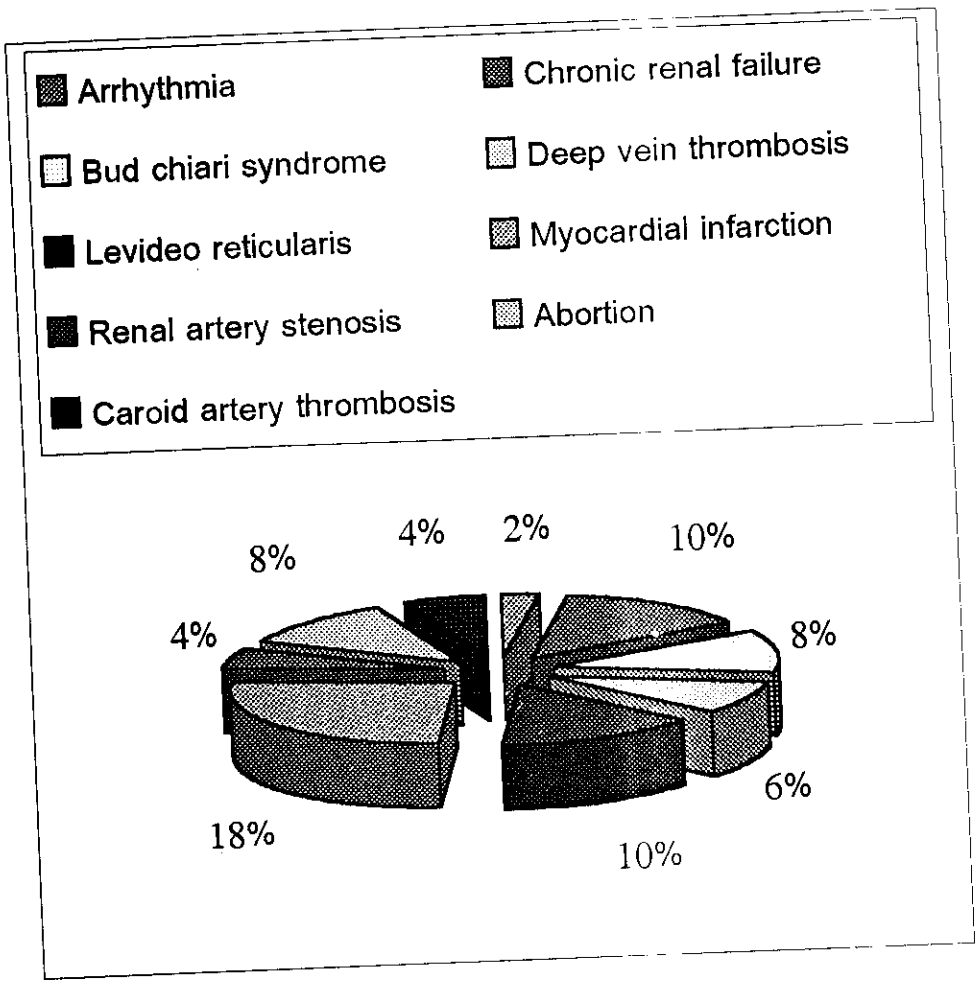

Fig (6) : Extra cerebral manifestations & their relation to antiphospholipid Abs

Table (5): Comparison between laboratory findings in group I and group II.

	Group I		Group II		t	P
	$\bar{x}$	±SD	$\bar{x}$	±SD		
PT (seconds)	13.93	3.1	13.1	2.88	1.86	0.05*
APTT (seconds)	37.0	13.4	35.3	13.7	1.87	0.05*
Total Cholesterol (Mg/dl)	183.2	22.1	199.2	59.7	2.88	0.01*
LDL (Mg/dl)	103.3	23.14	123.4	61.4	5.32	0.001*
HDL (Mg/dl)	55.5	12.9	53.3	19.5	1.86	0.05*
Triglyceride (Mg/dl)	118.6	24.1	129.7	39.2	5.30	0.001*
Glucose level (Mg/dl)	119.4	24.8	156.76	75.4	5.33	0.001*
Platelets count (cells/mm3)	186894.7	69376.5	193935.5	92783.2	5.33	0.001*
IgG "ACA" (GPL Units)	32.6	35.4	29.5	47.1	1.86	0.05*
IgM "ACA" (MPL Units)	16.83	27.1	9.7	23.4	2.88	0.01*

There is a significant difference between group I and group II in all above parameters.

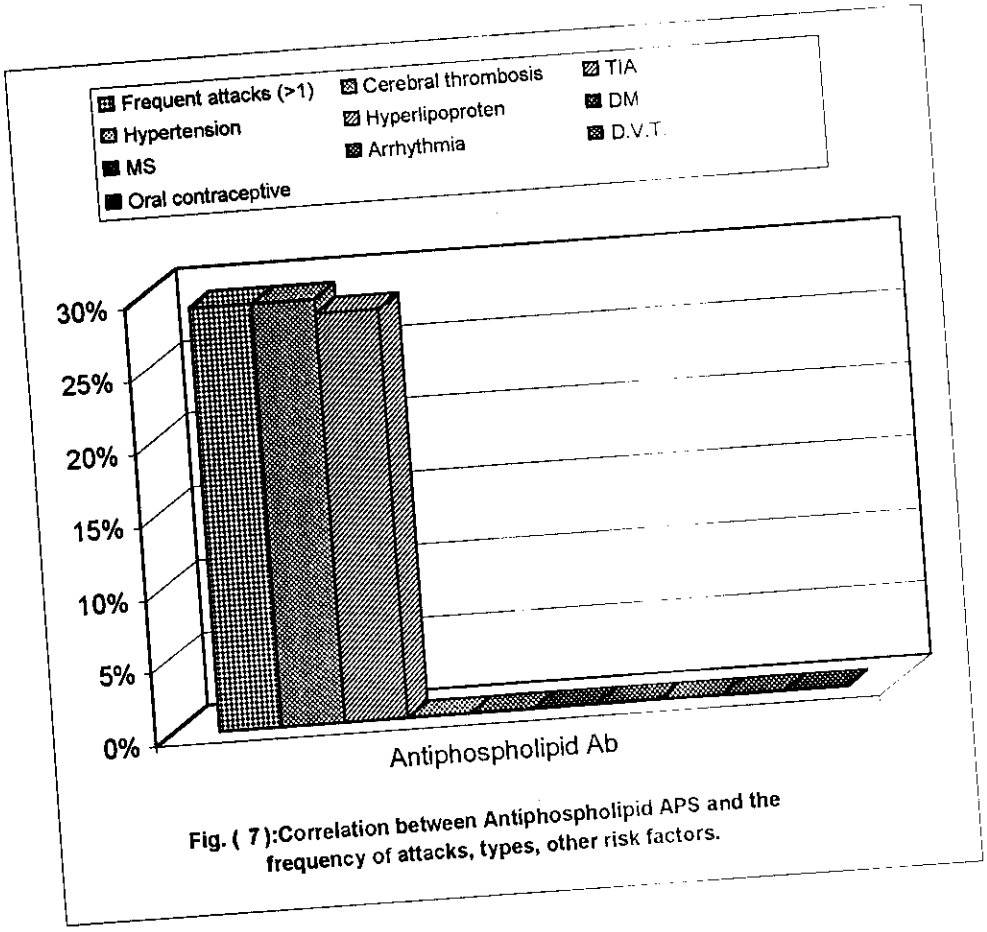

Fig. (7):Correlation between Antiphospholipid APS and the frequency of attacks, types, other risk factors.

Table (6): Comparison between laboratory findings of the antiphospholipid +ve patients & the antiphospholipid -ve patients.

	+ve test patients		-ve test patients		t	P
	$\bar{x}$	±SD	$\bar{x}$	±SD		
PT (seconds)	14.58	3.3	12.47	2.3	5.30	0.001*
APTT (seconds)	39.7	16	32.3	7.8	1.86	0.05*
Total Cholesterol (Mg/dl)	197.4	50.9	182.3	28.9	1.99	0.3
LDL (Mg/dl)	119.7	56.9	103.4	23.2	2.01	0.38
HDL (Mg/dl)	51.9	16.4	56.9	14.7	1.99	0.31
Triglycerides (Mg/dl)	125.7	26.2	120.3	34.5	1.42	0.5*
Glucose level (Mg/dl)	140.6	72.8	127.5	26.6	1.96	0.33
Platelets count (cells/mm3)	187518.5	99047.14	198652.2	63814.8	1.86	0.05*
IgG "ACA" (GPL Units)	55.7	39.8	1.56	0.81	5.31	0.001*
IgM "ACA" (MPL Units)	21.6	31.2	1.65	0.4	5.33	0.001*

There is a significant difference between laboratory findings of the antiphospholipid +ve patient and the antiphospholipid -ve patients regarding; the PT, APTT, platelets count, IgG ACA, IgM ACA & no significant difference regarding; total cholesterol, LDL, HDL, triglycerides & glucose.

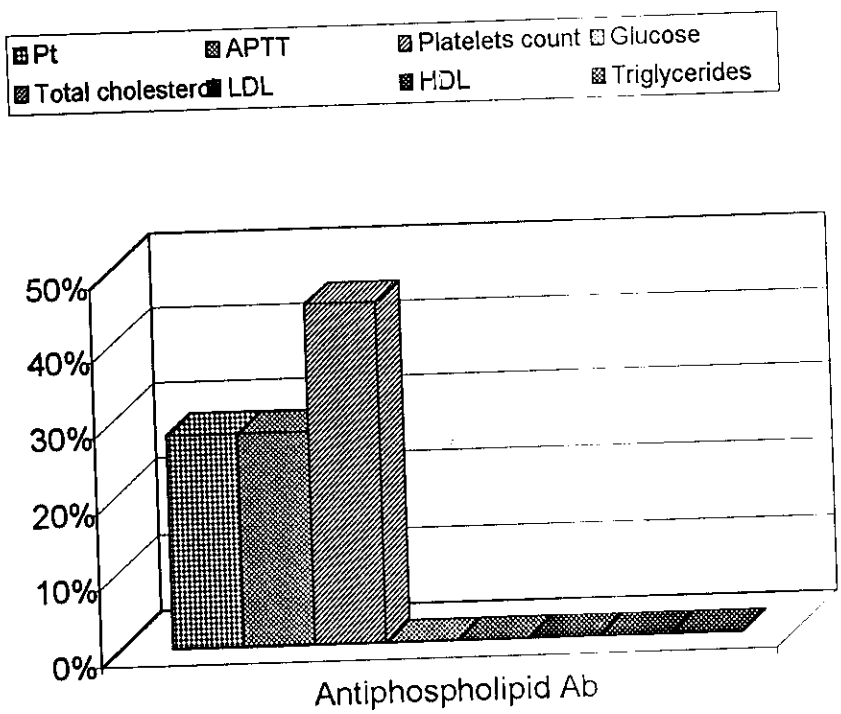

Fig. (8):Correlation between antiphospholipid Abs different laboratory test in patients with +ve anti phospholipid.

Table (7): Percentage of distribution of sex in relation with +ve antiphospholipid antibodies.

Sex / APA Antibodies	Male		Female	
	No.	%	No.	%
+ve APA	9	47.4	18	58.1
-ve APA	10	52.6	13	41.9
Total	19	100.0	31	100.0
X^2	2.92			
p	0.01*			

There is a significant difference between the distribution of antiphospholipid antibodies in both males and females . The females have more positive antiphospholipid antibodies more than the males .

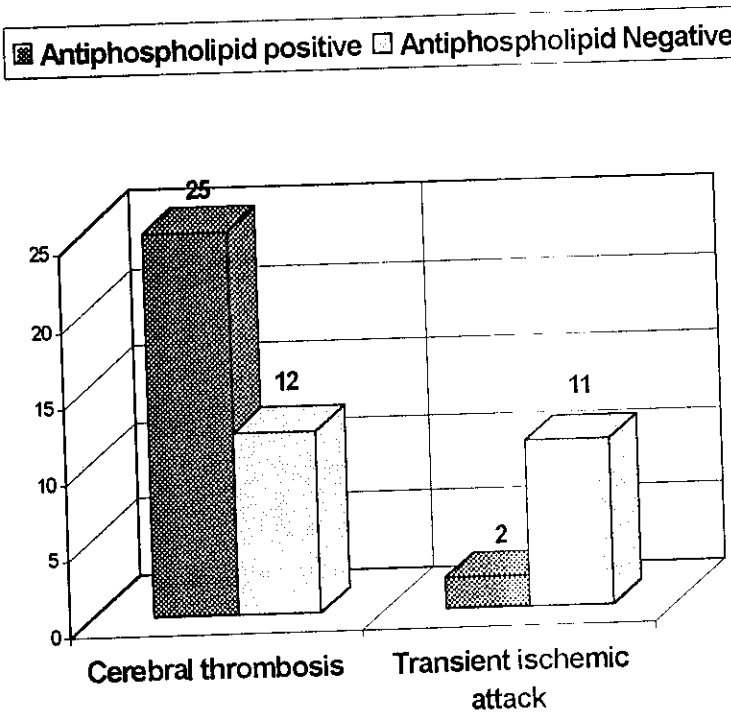

Fig (9): Prevalence of Antiphospholipid Abs in Stroke patients

Table (8): Comparison between the frequency of attacks in both antiphospholipid positive patients and antiphospholipids negative patients.

	Antiphospholipid positive		Antiphospholipid Negative	
	No.	%	No.	%
One attack	8	29.6	20	86.9
More than one	19	70.4	3	13.1
Total	27	100.0	23	100.0
X^2	3.89			
p	0.001*			

There is a significant difference between patients with one attack and more than one attack as regard to antiphospholipid.

Frequent attack were more common in antiphospholipid +ve patients than in antiphospholipid -ve patients.

Table (9): Comparison between group I of patients and group II according to the presence or absence of Antiphospholipids Abs

	Anti-phospholipid +ve patients		Anti-phospholipid -ve patients	
	No.	%	No.	%
In group I of patients	22	81.48	8	34.78
In group II of patients	5	18.52	15	65.21
Total	27	100.0	23	100.0
X^2	1.93			
p	0.05*			

There is a significant difference in the two groups of patients as regard to anti-phospholipid distribution.

Antiphospholipid Abs were more common in group I of patients than in group II of patients.

Table (10): Types of antiphospholipid Abs.

	+ve		-ve		Total	
	No.	%	No.	%	No.	%
IgG anticardiolipin	14	28.0	36	72.0	50	100.0
IgM anticardiolipin	2	4.0	48	96.0	50	100.0
IgG & IgM anticardiolipin	2	4.0	48	96.0	50	100.0
LA & IgM anticardiolipin	2	4.0	48	96.0	50	100.0
LA & IgG anticardiolipin	2	4.0	48	96.0	50	100.0
LA, IgG & IgM	3	6.0	47	94.0	50	100.0
-ve antiphosph Abs.			23	46.0	50	100.0

Type of antiphospholipid Abs according to their representations was as follow: IgG Anticardiolipin represent 14 cases (28%), IgM anticardiolipin Abs 2 cases (4%), IgG & IgM anticardiolipin Ab represent 2 cases (4%), LA & IgM ACA represent 2 cases (4%), LA & IgG ACA represent 2 cases (4%), LA, IgG, IgM ACA represent 3 cases (6%), while, -ve antiphospholipid Abs represent 23 cases (46%).

Table (11): Other C.N.S. manifestations and their relation with antiphospholipid Abs.

Other C.N.S. manifestations	+ve antiphospholipid patients	-ve antiphospholipid patients	Total	
			No.	%
Seizures	7	2	9	18.0
Chorea	2	0	2	4.0
Migraine	6	1	7	14.0
A marusis fugax	1	0	1	2.0
Transient Global amnesia	7	0	7	14.0
Mylopathy	5	1	6	12.0

Other CNS manifestations were represented in our study as follow: Seizures (18%), migraine (14%), Transient global amnesia (14%), Mylopathy (12%), chorea (4%), Amarusis fugax (2%). All of the above manifestation were more frequently recorded in patient with +ve antiphospholipid Abs than those with -ve antiphospholipid Abs.

Table (12): Extra cerebral manifestations and their relation with antiphospholipid Abs.

Extra cerebral mainifestations	+ve antiphospholipid patients	-ve antiphospholipid patients	Total	
			No.	%
Arrhythmia	1	0	1	2.0
Myocardial infarction	7	2	9	18.0
Chronic renal failure	4	1	5	10.0
Renal artery stenosis	2	0	2	4.0
Bud chiari syndrome	3	1	4	8.0
Abortion	3	1	4	8.0
Deep vein thrombosis	2	1	3	6.0
Carotid artery thrombosis	2	0	2	4.0
Levideo reticularis	5	0	5	10.0

Extra cerebral manifestations were represented in our study as follow: myocardial infaraction (18%), livideo reticularis (10%), Chronic Renal Failure (10%), Abortion (8%), budd chiari syndrome (8%), Deep vein thrombosis (6%), renal artery steonsis (4%), carotid artery thrombosis (4%), arrhythmia (2%).

All of these manifestations were more frequently recorded in patients with positive antiphospholipid Abs than patient with -ve antiphospholipid Abs.

Table (13):Correlation between LA, IgM ACA, IgG ACA and the frequency of attacks, types, other risk factors.

	Antiphospholipid Ab					
	r	p	r	p	r	p
Frequent attacks (>1)	0.29	0.05*	0.28	0.05*	0.29	0.05*
Types:						
-Cerebral thrombosis	0.29	0.05*	0.29	0.05*	-0.45	0.01*
- TIA	0.28	0.05*	-0.45	0.01*	0.29	0.05*
Other risk factors						
- Hypertension	0.21	0.09	0.21	0.09	0.2	0.1
- Hyperlipoproten	0.2	0.09	0.21	0.09	0.12	0.1
- DM	0.12	0.1	0.1	0.09	0.08	0.1
- MS	-	-	-	-	-	-
- Arrhythmia	-	-	-	-	-	-
- D.V.T.	-	-	-	-	-	-
- Oral contraceptive	0.21	0.08	0.1	0.1	0.2	0.09*

There is correlation between antiphospholipid Abs and the frequent attacks (>1 attack), cerebral thrombosis, TIA, but there is no correlation between antiphospholipid Abs & The other risk factors.

Table (14): Correlation between antiphospholipid Abs and different laboratory tests in patients with +ve anti phospholipid.

	Antiphospholipid Abs.					
	r	p	r	p	r	p
PT	0.28	0.05*	0.28	0.05*	0.28	0.05*
APTT	0.28	0.05*	0.26	0.05*	0.29	0.05*
Platelets count	-0.45	0.01*	-0.27	0.05*	-0.29	0.05*
Glucose	-0.11	0.1	-0.13	0.09	-0.05	0.5
Total cholesterol	0.28	0.06	0.1	0.07	0.28	0.06
LDL	0.19	0.1	0.2	0.1	0.11	0.09
HDL	-0.12	0.1	-0.12	0.08	-0.2	0.06
Triglycerides	0.13	0.1	0.16	0.09	0.21	0.08

There is +ve correlation between Antiphospholipid Abs and PT, APTT, platelet count, and no correlation with Glucose, total Cholesterol, LDL, HDLand triglycerides.

Table (15): Prevalence of antiphospholipid Abs in stroke patients.

Type of stroke patients	Antiphospholipid Abs		Total	
	+ve	-ve	No.	%
Cerebral thrombosis	25	12	37	74.0%
Transient ischemic attack (TIA)	2	11	13	26.0%

Cerebral thrombosis represented 74% of stroke patients, while transient ischemic attack represented only in 26% of stroke patients. Antiphospholipid Abs were more prevalent in cerebral thrombosis patients than in transient ischemic attack patients.

Table(16): Regression analysis of different variables significance related to antiphospholipid antibodies.

	IgG		IgM	
	r	p	r	p
IgG				
IgM	0.43	0.01*		
LA	0.39	0.05*	0.2	0.05*

There is a significant correlation between the antiphospholipid antibodies.

RESULTS

The results of our study was as follow: -

Table 1 show age & sex distribution in both patients & controls;

Regarding the age:

The mean ($\bar{X}$) of age of male controls was: 56.6±SD=10.96.

& the mean ($\bar{X}$) of age of female controls was 49.2, ±SD=7.89

on the other hand:

the mean ($\bar{X}$) of age of male patients was 52.42, ±SD=8.19

& the mean ($\bar{X}$) of age of female patients was; 50.19, ±SD: 9.50

Regarding the sex:

The number of male controls was 5 (33.3%) & The number of female controls was 10 (66.7%) On the other hand: the number of male patients was 19 (38%) & the number of female patients was 31 (62%)

Comparison between patients & controls, regarding the laboratory findings were shown in table 2: there was a significant difference between patients & controls in all mentioned test: PT, APTT, total cholesterol, LDL, HDL, triglycerides, Glucose level, platelets count, IgG ACA, IgM ACA PT was significantly increased in patients than in control (mean of patients = 13.62±SD=3, while mean of controls = 12.1±SD=1.4, t=1.87 p = 0.05*).

APTT was significantly increased in patients than in controls (mean of patients = 36.3±SD=13.4, while mean of controls = 31.3±SD=4.5, t=1.88 p = 0.05*).

Total cholesterol was highly significant increased in patients than in controls (mean of patients = 189.3 ±SD=40.8 while mean of controls = 168.3±SD 26.6, t = 2.88, p = 0.01*).

LDL was significantly increased in patients than in controls (mean of patients = 110.9±SD=42.5 while mean of controls = 94.1±SD=13.3, t = 1.87 p = 0.05*).

HDL was highly significant increased in patients than in controls (mean of patients = 54.6±SD=15.6, while mean of controls = 51.38±SD=5.4, t = 2.89 p=0.01*).

Triglycerides was significantly increased in patients than in controls (mean of patients = 122.8±SD=30.8 while mean of controls = 102.6±SD=25.2, t=1.88 p=0.05*).

Glucose level was highly significant increased in patients than in controls (mean of patients = 133.6±SD 52.9 while mean of controls = 107.8±SD=22.8, t = 5.32, p=0.001*).

Platelets count was highly significant decreased in patients than in controls (mean of patients = 191260 ±SD 83968.1 while mean of controls = 298466.6 ±SD 68837.1, t=5.30 p=0.001*).

IgG ACA (anticardiolipin antibodies) was highly significant increased in patients than in controls (mean of patients = 30.78 ±SD=39.8 while mean of controls = 1.49±SD=0.89, t=5.33, p=0.001*).

IgM ACA was high significantly increased in patients than in controls (mean of patients = 12.4 ±SD 24.81 while mean of controls = 1.42±SD 0.28, t=5.33 p=0.001*).

Comparison between laboratory findings in Group 1 of patients & controls were shown in Table 3:

PT was significantly increased in Group 1 than in controls (mean of Group 1 = 13.93±SD 3.1, while mean of controls = 12.1 ±SD 1.4, t = 1.88 p 0.05*).

APTT was significantly increased in Group 1 than in controls (mean of Group 1 = 37±SD 13.4, while mean of controls = 31.3±SD 4.5, t = 1.87, p = 0.05*).

There was no significant difference between Group 1 and controls regarding total cholesterol, LDL, HDL, triglycerides & glucose level (p > 0.05)

Platelets counts was highly significant decreased in Group 1 than in controls (mean of group 1 = 186894.7±SD 69376.5 while mean of controls = 298466.6±SD 71654.7, t = 5.33, p=0.001*).

IgG ACA was highly significant increased in Group 1 than in controls (mean of group 1 = 31.6±SD 35.4 while mean of controls = 1.49±SD 0.89, t=5.332, p=0.001*).

IgM ACA was highly significant increased in Group 1 than in controls (mean of group 1=16.83 ±SD 27.1 while mean of controls = 1.42±SD 0.28, t=5.32, p=0.001*).

Comparison between laboratory findings in Group 2 of patients & the controls was shown in Table 4:

PT was significantly increased in Group 2 than in controls (mean of group 2 = 13.1 ± SD 2.88, while mean of controls = 12.1 ±SD 1.4, t = 1.87, p = 0.05*).

APTT was significantly increased in Group 2 than in controls (mean of group 2 = 35.3±SD 13.7, while mean of controls = 31.3±SD 4.5, t=1.86, p = 0.05*).

Total cholesterol was highly significant increased in Group 2 than in controls (mean of group 2 = 199.2 ±SD 59.7 while mean of controls = 168.3±SD 26.6, t = 2.86, p= 0.01*).

LDL was high significantly increased in Group 2 than in controls (mean of group 2 = 123.4±SD 61.4 while mean of controls = 94.1±SD 13.3, t=2.88, p=0.01*).

HDL was significantly increased in Group 2 than in controls (mean of group 2 = 53.3±SD 19.5, while mean of controls = 51.38 ±SD 5.4, t=1.86, p = 0.05*.

Triglycerides was highly significant increased in Group 2 than in controls (mean of group 2 = 129.7±SD 39.2 while mean of controls = 102.6±SD 25.2, t = 2.87, p = 0.01*).

Glucose level was high significantly increased in Group 2 than in controls (mean of group 2 = 156.76 ±SD 75.4, while mean of controls = 107.8±SD22.8, t = 5.32, p = 0.001*).

Platelets count was high significantly decreased in Group 2 than in controls (mean of group 2 = 193935.5±SD 92783.2 while mean of controls = 298466.6±SD68837.1, t = 5.01, p = 0.001*).

IgG ACA was high significantly increased in Group 2 than in controls (mean of group 2 = 29.5±SD 47.1 while mean of controls = 1.49±SD 89, t = 5.22, p = 0.001*).

IgM ACA was high significantly increased in Group 2 than in controls (mean of group 2 = 9.7±SD 23.4 while mean of controls = 1.42±SD 0.28, t = 5.34, p = 0.001*).

Comparison between laboratory findings in Group 1 and group 2 was shown in Table 5:

PT was significantly increased in Group 1 than in Group 2 (maen of group 1=13.93±SD 3.1, while mean of group 2 = 13.1 ±SD 2.88, t=1.86, p=0.05*)

APTT was significantly increased in Group 1 than in Group 2 (mean of group 1=37±SD 13.4, while mean of group 2 =35.3 ±SD 13.7, t=1.87, p=0.05*).

Total cholesterol was significantly increased in Group 2 than in Group 1 (mean of group 1=183.2±SD 22.1, while mean of group 2 = 199.2 ±SD 59.7, t=2.88, p=0.01*)

LDL was high significantly increased in Group 2 than in Group 1 (mean of group 1=103.3 ±SD 23.14, while mean of group 2 = 123.4 ±SD 61.4, t=5.32, p=0.001*)

HDL was significantly increased in Group 1 than in Group 2 (mean of group 1=55.5±SD 12.9, while mean of group 2 = 53.3 ±SD 19.5, t=1.86, p=0.05*)

Triglycerides was significantly increased in Group 2 than in Group 1 (mean of group 1=118.6±SD 24.1, while mean of group 2 = 129.7 ±SD 39.2, t=5.30, p=0.001*)

Glucose level was high significantly increased in Group 2 than in Group 1 (mean of group 1=119.4±SD 24.8, while mean of group 2 = 156.76 ±SD 75.4, t=5.33, p=0.001*)

Platelets count was high significantly decreased in Group 1 than in Group 2 (mean of group 1=186894.7±SD 69376.5, while mean of group 2 = 193935.5 ±SD 92783.2, t=5.33 p=0.001*)

IgG ACA was significantly increased in Group 1 than in Group 2 (mean of group 1=32.6±SD 35.4, while mean of group 2 = 29.5 ±SD 47.1, t=1.86, p=0.05*)

IgM ACA was significantly increased in Group 1 than in Group 2 (mean of group 1=16.83±SD 27.1, while mean of group 2 = 9.7 ±SD 23.4, t=2.88, p=0.01*)

Comparison between laboratory findings of the antiphospholipid +ve patients & patients with –ve antiphospholipid was shown in Table 6:

PT was high significantly increased in +ve patients than in –ve patients (mean for +ve patients = 14.58±SD 3.3 while mean of –ve patients = 12.47±SD 2.3, t=5.30, p=0.001*).

APTT was significantly increased in +ve patients than in –ve patients (mean for +ve patients = 39.7±SD 16 while mean of –ve patients = 32.3±SD 7.8, t=1.86, p=0.05*).

There was no significant difference between +ve APA patients & -ve APA patients regarding; total cholesterol, HDL, LDL, triglycerides & glucose level (p > 0.05).

Platelets count was significantly decreased in +ve patients than in –ve patients (mean for +ve patients =187518.5±SD 99047.14 while mean of –ve patients = 198652.2±SD 63814.8, t=1.86, p=0.05*).

IgG ACA was high significantly increased in +ve patients than in –ve patients (mean for +ve patients =55.7±SD while mean of –ve patients = 1.56±SD 0.81, t=5.31, p=0.001*).

IgM ACA was high significantly increased in +ve patients than in –ve patients (mean for +ve patients =21.6±SD 31.2 while mean of –ve patients =1.65±SD 0.4, t=5.33, p=0.001*).

The percentage of distribution of sex in relation with +ve antiphospholipid Abs was shown in table 7: males having +ve APA was 9 patients (47.4%), while females having +ve APA was 18 patients (58.1%) on the other hand; males having –ve APA was 10 patients (52.6%) while females having –ve APA was 13 patients (41.9%), the antiphospholipid Abs were much significantly increased in females than in males (p=0.01*, X^2 = 2.92).

Comparison between the frequency of attacks in both antiphospholipid +ve & antiphospholipid –ve patients was shown in t able 8:
The number of antiphospholipid +ve patients having more than one attack = 19 patients (70.4%) & the number of antiphospholipid –ve patients having more than one attack = 3 patients (13.1%) the frequent attacks are much significantly increased in antiphospholipid +ve patients than in antiphospholipid -ve patients (p = 0.001*, X^2 = 3.89) (further details are seen in table 8).

Comparison between group 1 and group 2 according to the presence or absence of antiphospholipid Abs was seen in table 9:

Where the antiphospholipid +ve patients (27 patients, 54% of total patients population), were distributed as follows: 22 of them was in group 1(81.48%) & only 5 of them were in group 2 (18.52%).

i.e. there is a significant difference in the two groups of patients regarding antiphospholipid distribution, the antiphospholipid Abs were significantly increased in group 1 of patients than in group 2 ($p = 0.05^*$, $X^2 = 1.93$) (further details are seen in table 9).

Types of antiphospholipid Abs were seen in table 10 where:

IgG anticardiolipin alone represented 14 cases i.e. 28% of total patient's population.

IGM anticardiolipin alone represented 2 cases i.e. 4% of total patient's population.

IgG & IgM ACA represented 2 cases i.e. 4% of total patient's population.

LA (lupus anticoagulant) & IgM ACA represented 2 cases i.e. 4% of total patients population.

LA & IgG ACA represented 2 cases i.e. 4% of total patients population.

LA&IgG, IgM ACA represented 3 cases i.e. 6% of total patient population.

The –ve Antipholipid ABS patients represented 23 patient (46%)

Other CNS manifestations & their relation to antiphospholipid Abs were seen in table 11.

Seizures were reported in 9 cases (18% of patients population)

Chorea was reported in 2 cases (4% of patient population) migraine in 7 cases (14% of patient's population).

Amarusis fugax in 1 case (2%) transient global amnesia in 7 cases (14%) mylopathy in 6 cases (12%).

All the above manifestations were more frequently reported in patients with +ve antiphospholipid Abs than in patients with _ve antiphospholipid Abs (further details are seen in table 11).

Extra cerebral manifestations & their relation to antiphospholipid Abs were reported in table 12, where:

Arrhythmia was reported only in 1 patient (2%)

Myocardial infarction in 9 patients (18%).

Chronic renal failure in 5 patients (10%).

Renal artery stenoises in 2 patient (4%)

Bud chiari syndrome in 4 patients (8%)

Abortion in 4 patients (8%)

Dep vein thrombosis in 3 patients (6%).

Carotid artery thrombosis in 2 patients (4%).

Levideo reticularis in 5 patients (10%)

All the above manifestations were more frequently recorded in patients with +ve Antiphospholipid Abs than in patients with –ve Antiphospholipid Abs.

Correlation between lupus anticoagulant (LA) & IgG, IgM anticardiolipin & the frequency of attacks, type of cerebral ischemia & other risk factors was shown in t able 13: where there is a correlation

between antiphospholipid Abs & the frequent attacks (>1) (for LA r = .29, p =0.05*, for IgM ACA: r = 0.28, p = 0.05* & for IgG ACA; r=0.29, p=0.05*) & cerebral thrombosis (for LA; r=0.29, p=0.05*, for IgG ACA; r=-0.45 p=0.01*) & TIA (for LA; r=0.28, p=0.05)* for IgM ACA; r= –0.45, p=0.01*, for IgG ACA; =0.29, p=0.05*) but there was no correlation between the antiphospholipid Abs & other risk factors (hypertension, hyperlipoproteinemia, DM, MS, Arrhythmia, DVT, oral contraceptives). (further details are seen in table 13).

Correlation between antiphospholipid Abs (LA, IgM ACA, lgG ACA) & different laboratory tests: in patients with +ve antiphospholipid Abs was shown in table 14:

Where there was a correlation between APA & PT APTT, platelets count. But no correlation with glucose, total cholesterol, LDL, HDL & triglycerides (further details are seen in table 14).

Prevalence of APAs in stroke patients was shown in table 15:
Patients of our study (stroke patients) were either having cerebral thrombosis (37 patients, 74%) or transient ischmic attacks TIA (13 patients, 26%).

Among the 37 patients with cerebral thrombosis: 25 patients had +ve APAs, while among the 13 TIA patients 2 had a +ve APAs, so the APAs were more prevalent in cerebral thrombosis patients than in transient ischemic attacks patients (further details are seen in table 15).

Regression analysis of different variable significance related to antiphospholipid Abs (table 16) show significant correlation between APAs (LA, IgG ACA, IgM ACA) for IgG & IgM (r = 0.43, p=0.01*).

For IgM & LA (r=0.39, p=0.05*)

For IgG, LA (r=0.2, p=0.05*).