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Pregnancy outcomes in antiphospholipid syndrome in a tertiary hospital: An observational study

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Abstract
Background: Obstetric complications are the hallmark of antiphospholipid syndrome. Recurrent miscarriage, early delivery, oligohydramnios, prematurity, intrauterine growth restriction, fetal distress, fetal or neonatal thrombosis, pre-eclampsia/eclampsia, HELLP syndrome, arterial or venous thrombosis and placental insufficiency are the most severe APS-related complication for pregnant women. Antiphospholipid antibodies promote activation of endothelial cells, monocytes and platelets, causing an overproduction of tissue factor and thromboxane A2. Complement activation might have a central pathogenetic role. These factors, associated with the typical changes in the hemostatic system during normal pregnancy, result in a hypercoagulable state. This is responsible of thrombosis that is presumed to provoke many of the pregnancy complications associated with APS. Obstetric care is based on combined medical-obstetric high-risk management and treatment with the association between aspirin and heparin. This review deals with the pregnancy outcomes of APLA syndrome.
Methods: This Observational study was conducted among 21 antenatal women diagnosed with antiphospholipid syndrome among 1025 AN screened women who attended antenatal clinic in Government Kilpauk Medical College Hospital, Chennai. This study was done after getting clearance from ethical committee of Government Kilpauk Medical College Hospital.
Aims & objectives
1. To study the prevalence of antiphospholipid syndrome in antenatal population attending Government Kilpauk Medical College Hospital.
2. To study the outcome of APLA syndrome in pregnancy.

Results: 21 cases of APLA details analysed
Conclusion: There exists a statistical significance between Hypertension and Non Hypertension APLA Patients with respect to different age group. Hypertension was there for 19% of APLA patients.

Keywords: APLA syndrome

Introduction
Antiphospholipid syndrome (APS) is an autoimmune condition, in which antiphospholipid antibodies (aPL) cause clinical features including thrombosis, fetal loss, and preterm delivery. Studies in large numbers of patients with APS show that they suffer both early and late fetal loss as well as complications of pregnancy such as preeclampsia. The fetal loss in patients with APS is not caused primarily by thrombosis, but by a number of biological effects of aPL that affect implantation of the embryo. These factors are not yet understood fully but include effects on trophoblast cell viability and migration, inflammation at the fetal-maternal interface, and activation of complement. The established management of pregnancy in patients with known obstetric APS is to give daily low-dose oral aspirin plus daily subcutaneous heparin. This gives a live birth rate of over 70%. The trials that led to this form of management being adopted were small but overall do support the use of the heparin/aspirin combination over aspirin alone. There is no definite evidence supporting the use of heparin plus aspirin in patients who are APLA-positive, but who have never suffered any problems in pregnancy. However, patients taking long-term warfarin for thrombotic APS should have this changed to heparin during pregnancy.

Aims &objectives
1. To study the prevalence of antiphospholipid syndrome in antenatal population attending Government Kilpauk Medical College Hospital.
2. To study the outcome of APLA syndrome in pregnancy.

Methods

This Observational study was conducted among 21 antenatal women diagnosed with antiphospholipid syndrome who attended antenatal clinic in Government Kilpauk Medical College Hospital, Chennai.

Inclusion Criteria

H/O Vascular thrombosis

Bad Obstetric history.

Elevated IgG or IgM anticardiolipin antibody (>40 GPLU or >99th percentile of healthy controls) Elevated IgG or IgM anti-β2GPI antibody (>99th percentile of healthy controls) Positive lupus anticoagulant assay (One or more of these tests must be positive on at least two occasions at least 12 weeks apart).

Techniques

Plasma samples were tested for anticardiolipin antibodies and β2GPI antibodies by recommeded methods on first visit.

Inj, Enoxaparin 5000 U/day was added to Low dose Aspirin (100 mg/day) for all pregnant APS women from the positive pregnancy test result to delivery as per Rheumatologist advise. The 2 treatments were administered at the same time Compliance with the treatment was monitored only by self-declaration by the patient. Monitoring and investigation for heparin-induced thrombocytopenia was done at regular intervals during AN visits.

Results and Discussion

Totally screened: 1025. APLA cases detected 21. Prevalence 2 percentage.

Table 1: Hypertension * Age Group

Crosstab						
			Age Group			Total
			Till 25	26-30	31-35	
htn	0	Count	3	11	3	17
		% within AGE Group	75.0%	100.0%	50.0%	81.0%
		% of Total	14.3%	52.4%	14.3%	81.0%
	1	Count	1	0	3	4
		% Within Age Group	25.0%	0.0%	50.0%	19.0%
		% of Total	4.8%	0.0%	14.3%	19.0%
Total		Count	4	11	6	21
		% within AGE Group	100.0%	100.0%	100.0%	100.0%
		% of Total	19.0%	52.4%	28.6%	100.0%

Chi square=6.408 P= 0.041, Statistically Significant.

There exists a statistical significance between Hypertension and Non Hypertension APLA Patients with respect to different age group. Hypertension was there for 19% of APLA patients.

Table 2: gravida * Age Group

Crosstab						
			Age Group			Total
			TILL 25	26-30	31-35	
g	3	Count	2	2	3	7
		% within Age Group	50.0%	18.2%	50.0%	33.3%
		% of Total	9.5%	9.5%	14.3%	33.3%
	4	Count	0	2	1	3
		% within Age Group	0.0%	18.2%	16.7%	14.3%
		% of Total	0.0%	9.5%	4.8%	14.3%
	5	Count	1	5	1	7
		% within Age Group	25.0%	45.5%	16.7%	33.3%
		% of Total	4.8%	23.8%	4.8%	33.3%
	6	Count	1	1	0	2
		% within Age Group	25.0%	9.1%	0.0%	9.5%
		% of Total	4.8%	4.8%	0.0%	9.5%
	8	Count	0	1	1	2
		% within Age Group	0.0%	9.1%	16.7%	9.5%
		% of Total	0.0%	4.8%	4.8%	9.5%
Total		Count	4	11	6	21
		% within Age Group	100.0%	100.0%	100.0%	100.0%
		% of Total	19.0%	52.4%	28.6%	100.0%

Chi square=6.5.655, P= 0.686 Statistically Not Significant.

There doesnot exists a statistical significance between Gravida of APLA Patients with respect to different age group.

Table 3: abort * Age Group

Crosstab						
			Age Group			Total
			TILL 25	26-30	31-35	
abort	0	Count	0	1	0	1
		% within Age Group	0.0%	9.1%	0.0%	4.8%
		% of Total	0.0%	4.8%	0.0%	4.8%
	1	Count	4	10	6	20
		% within Age Group	100.0%	90.9%	100.0%	95.2%
		% of Total	19.0%	47.6%	28.6%	95.2%
Total		Count	4	11	6	21
		% within Age Group	100.0%	100.0%	100.0%	100.0%
		% of Total	19.0%	52.4%	28.6%	100.0%

Chi square=0.955 P= 0.620 Statistically Not Significant.

There doesnot exists a statistical significance between Gravida of APLA Patients with respect to different age group. Abortion percentage among APLA patients were 95%.

Table 4: preterm * Age Group

Crosstab						
			Age Group			Total
			TILL 25	26-30	31-35	
preterm	.0	Count	4	5	3	12
		% within Age Group	100.0%	45.5%	50.0%	57.1%
		% of Total	19.0%	23.8%	14.3%	57.1%
	1.0	Count	0	6	3	9
		% within Age Group	0.0%	54.5%	50.0%	42.9%
		% of Total	0.0%	28.6%	14.3%	42.9%
Total		Count	4	11	6	21
		% within Age Group	100.0%	100.0%	100.0%	100.0%
		% of Total	19.0%	52.4%	28.6%	100.0%

Chi square=3.739, P= 0.154, Statistically Not Significant.

There doesnot exists a statistical significance between Preterm of APLA Patients with respect to different age group.Preterm prevalence among APLA were 42.9%.

Table 5: preec * Age Group

Crosstab						
			Age Group			Total
			Till 25	26-30	31-35	
Preec	0	Count	4	9	5	18
		% Within Age Group	100.0%	81.8%	83.3%	85.7%
		% Of Total	19.0%	42.9%	23.8%	85.7%
	1	Count	0	2	1	3
		% Within Age Group	0.0%	18.2%	16.7%	14.3%
		% Of Total	0.0%	9.5%	4.8%	14.3%
Total		Count	4	11	6	21
		% Within Age Group	100.0%	100.0%	100.0%	100.0%
		% Of Total	19.0%	52.4%	28.6%	100.0%

Chi square=0.831 P= 0.660 Statistically Not Significant.

There doesnot exists a statistical significance between Preeclampsia of APLA Patients with respect to different age group.

Table 6: hypothy * Age Group

Crosstab						
			Age Group			Total
			Till 25	26-30	31-35	
Hypothy	0	Count	4	6	5	15
		% Within Age Group	100.0%	54.5%	83.3%	71.4%
		% Of Total	19.0%	28.6%	23.8%	71.4%
	1	Count	0	5	1	6
		% Within Age Group	0.0%	45.5%	16.7%	28.6%
		% Of Total	0.0%	23.8%	4.8%	28.6%
Total		Count	4	11	6	21
		% Within Age Group	100.0%	100.0%	100.0%	100.0%
		% Of Total	19.0%	52.4%	28.6%	100.0%

Chi square=3.553 P= 0.169 Statistically Not Significant.

There doesnot exists a statistical significance between Hypothyroid of APLA Patients with respect to different age group.

Table 7: hyperthy * Age Group

Crosstab						
			Age Group			Total
			Till 25	26-30	31-35	
Hyperthy	0	Count	4	11	5	20
		% Within Age Group	100.0%	100.0%	83.3%	95.2%
		% Of Total	19.0%	52.4%	23.8%	95.2%
	1	Count	0	0	1	1
		% Within Age Group	0.0%	0.0%	16.7%	4.8%
		% Of Total	0.0%	0.0%	4.8%	4.8%
Total		Count	4	11	6	21
		% Within Age Group	100.0%	100.0%	100.0%	100.0%
		% Of Total	19.0%	52.4%	28.6%	100.0%

Chi square=2.625P= 0.269 Statistically Not Significant.

There doesnot exists a statistical significance between Hyperthyroid of APLA Patients with respect to different age group.

Conclusion

1. There exists a statistical significance between Hypertension and Non Hypertension APLA Patients with respect to different age group. Hypertension was there for 19% of APLA patients.
2. There doesnot exists a statistical significance between Gravida of APLA Patients with respect to different age group.
3. There doesnot exists a statistical significance between Gravida of APLA Patients with respect to different age group. Abortion percentage among APLA patients were 95%.
4. There doesnot exists a statistical significance between Preterm of APLA Patients with respect to different age group. Preterm prevalence among APLA were 42.9%.
5. There doesnot exists a statistical significance between Preeclampsia of APLA Patients with respect to different age group.
6. There doesnot exists a statistical significance between Hypothyroid of APLA Patients with respect to different age group.
7. There doesnot exists a statistical significance between Hyperthyroid of APLA Patients with respect to different age group.

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Conflicts of interest
There are no conflicts of interest.

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