

## Management of Antiphospholipid Antibody Syndrome - Secondary Infertility W.S.R. To BOH Through Ayurvedic Protocol - A Single Case Study

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### ABSTRACT:

Anti-phospholipid antibody (APLA) syndrome is defined by the presence of thrombo-embolic complications and pregnancy morbidity in the presence of persistently increased titers of APLA syndrome. As recurrent miscarriage, IUD of an infant or death at birth has always been a devastating experience for the mother and of concern in clinical practice, All these mortality remains a challenge in the care of pregnant women worldwide, particularly for those who had history of adverse outcome in previous pregnancies (BOH). This case is an ideal example of *sapraja* and is successfully managed with *ayurveda* therapy. Patient was having the complaints of Antiphospholipid antibody syndrome- secondary infertility with BOH since last 6 years with mental disturbance, poor appetite & sleep and constipation. Considering clinical features *vata*, *kapha*, *artava* involved in pathology. Patient was treated with *virechana* and 2 courses of *kala basti* followed by tab *Garbhpal ras* 125mg, 2BD after meal with warm water, *Chitrakadi vati* 500mg, 2BD before meal with warm water, *Lakshmanarishta* 25ml BD after meal with warm water and *Bijadharakyoga* 6gm, BD before meal with warm water. During treatment patient got relief from signs and symptoms and got fruitful pregnancy and delivered healthy baby within 12 month. Hence it was concluded that above therapy is highly effective in the management of secondary infertility and got significant result in both subjective and objective parameters.

**KEYWORDS:** *APLA, Bijadharakyoga, Chitrakadi vati, Garbhpal ras, Kala basti, Lakshmanarishta, Virechana.*

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### INTRODUCTION:

Pregnancy is unique, exciting and joyous time in woman's life as it highlights woman's amazing creative power. Many of auto

immune diseases have predisposition for woman in their child bearing age. Antiphospholipid antibody syndrome is an autoimmune, hyper coagulable state caused

by Antiphospholipid antibodies. Pregnancy related complications are such as miscarriage, stillbirth, Intra I.U.D (Intra uterine death) etc. It is one of the few treatable causes of pregnancy loss and successful pregnancy rates of 70% or more can be achieved with appropriate treatment. In *Ayurveda*, the chronology of this disease can be understood as follows- Due to repeated bad dietary habits and lifestyle changes for a long term will lead in the formation of *agnimandya*, which lead to the formation of free radicals damaging the body habits and lifestyle changes for a long te in this condition they affect the immune cells, then these free radicals directly or after the influence of defective immune cellation of ful pregnancy rates of 70% or more can *bedhamani pratichaya* by forming unwanted clots and leads to the *vimargamana* of these clots form remote location to the main vital organs of the body and creating a condition of *strotorodha* there which will lead to blockage and reduce blood supply of the vital organs of the body and causing the manifestations of Antiphospholipid syndrome. As modern science doesn't have any treatment for this disease only a symptomatic treatment but in *ayurveda* it can be treated if we treat the *ama dosha* of the body and clear out the channels of the blood. This can be done with the help of various purification methods like *shodhanakriyas- Virechana, KalaBasti* and medicines which will digest the *ama dosha* of the body and help in healthy progeny.

**CASE REPORT:**

A 35year old female patient with registration no 16131/577 (OPD/IPD) came to Government Ayurved hospital, Panigate, Vadodara, Gujarat. Patient was unable to conceive since last 6 years with one miscarriage in 2016 and one IUD in 2017. She was detected with Antiphospholipid

antibody syndrome (APLA Syndrome) in 2017 after IUFD investigations. She was suffering from poor appetite, sleep disturbance and constipation. Patient was also psychologically upset since last 2 year. She had used various allopathic medicines. But she was not found result. Hence she came to GAH, Vadodara, Gujarat, India to get result on the day of 12/01/21.

Ultrasonography suggested no any abnormality in uterus. HSG (hysterosalpingography) suggested bilateral fallopian tubal patency. The semen analysis of the partner was normal. She had no previous medical or surgical illness. On examination, it was found that she was belonging to *Vatakaphaja Prakriti* and there was no abnormal finding seen in general and systemic examination. Menstrual history was 3 to 4 day per 25 to 28 day, regular, moderate, painless before treatment. During per speculum examination, no abnormality found. As per vaginal examination, uterus was Anteflex Anteverted and no tenderness was found in cervix. BP was 110/76 mmHg, pulse was 82/min, weight was 62 kg and height was 165 cm.

**Obstetrics History:**

- G4/P1/L2/A2
- A1- 3mGA due to absence of heartbeats
- A2- Intra uterine fetal death due to congenital Anomaly
- L1- Full term normal delivery at hospital, 13 years back (Male baby)
- L2- Full term normal LSCS at hospital on 14<sup>th</sup> September 2022 (Male baby)

**Investigations:**

- Hematology and Urine (R/M) parameters were found within normal limit.

- Blood sugar as well Thyroid function tests were also in normal range.
- In Hormonal study, S. FSH, S. LH, S. Prolactin and AMH during follicular phase were found absolutely in normal limit.
- In USG, TVS (UT & Ad), was also found normal.
- In HSG- normal finding.
- Seminogram of patient's husband was also found normal.

#### THERAPEUTIC INTERVENTION:

patient was treated on IPD basis.

*Garbhapal ras*, *Chitrakadi vati*, *Lakshmanarishtam* and *Bijadharakyoga* were selected for oral administration. *Triphala tablet* was given in the quantity of 2 at night with luke warm water.

#### B) Panchakarma therapy & its drugs:

- *Virechanakarma* and 2 courses of *kala basti* in the interval of 3 months.

- *Panchakarma* was selected on the basis of its properties useful in pacifying vitiated *Doshas*.

#### Internal Therapy:

Oral medications were selected on the basis of their properties useful in pacifying vitiated *doshas Vattaja and Kaphaja* in this patient.

**Ahara and vihara (diet and mode of life) advised during treatment: Pathya (regimen to be follow):** green gram, ghee, rice, wheat, green vegetables, fruits, nuts, plenty of water, night sleep (8 hours), exercise, asana (*siddhasana, dhanurasana, savasana, vajrasana*), pranayama (*bhramari, anuloma-viloma*).

**Apathya (regimen to be restricted):** bakery items, oily foods, bread, curd, day time sleep, night awakening, stress.

**Follow up:** Every 15 days

Table-1: Internal medications

Medicines	Ingredients	Form	Properties	Dose	Route of administration & anupana
<b>Garbhapal Ras (B.R)</b>	<i>Hingula, naga bhasma, vanga bhasma, twak, shunti, maricha, pippali, dhanyaka, draksha, devadaru, loha bhasma, sweta aparajita</i>	Tablet	<i>Kaphavata shamaka</i>	125mg	2BD orally with warm water after meal
<b>Chitrakadi Vati C.S.chi:15/96)</b>	<i>Chitraka, pippali mula, yava kshara, sarjikshara, sauvarchala, saindhava, shunti, maricha, pippali, hingu, ajamoda, matulunga rasa, dadima rasa</i>	Tablet	<i>Kaphavata shamaka, pitta vardhaka</i>	500mg	2BD orally with warm water before meal
<b>Bijadharak yoga (Anubhuta)</b>	<i>Shatapushpa, Shatavari, Yastimadhu, Variyali, Shunti</i>	Powder	<i>Kaphavata Shamaka</i>	6gm	BD orally with warm water

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					before meal
<b>Lakshamanarish tam B.R. 66/119-121</b>	<i>Laxmana, Guda, Dhataki, Mustaka, Madhuka, Bala, Amalaki, Nisha, Bilva, Chandana, Daruharidra, Triphala</i>	Arishta	<i>Tridoshahara</i>	25ml	BD orally with equal quantity of warm water after meal

**Table-2: Criteria for selection of Panchakarma & its drugs**

Pancha karma	Drugs	Quantity	Days
<b>Snehapana</b>	<i>Phalagritta</i>	30,60,90,110,120ml	5 day
<b>Virechana</b>	<i>Trivrut avaleha</i>	90gm	1 day
<b>Kala basti</b>	<b>Asthapana-</b> makshika, Saindhava, <u>Sneha:</u> (Dashmoola taila) <u>Kalka:</u> (shatapushpa, shatavari, yasthimadhu, variyali, trikatu) <u>Kashaya:</u> (Dashamooladi) Gomuta- <b>Anuvasana</b> Dashmoola taila	40gm 5gm 60ml  10,10,5,10,5gm  350ml  50ml 60ml	16 basti course  (2 courses in the interval of 3 months)

**Table-3: Phospholipid Syndrome Panel Before and during the treatment**

Phospholipid Syndrome Panel	12/01/2021 (Clot Detection)	17/06/2021 (Clot Detection)	31/12/2021 (Clot Detection)
<b>APTT - LA responsive</b>	35.6 sec	37.4 sec	37.2 sec
<b>APTT-control</b>	25.7 sec	26.5 sec	23.9 sec
<b>Lupus Anticoagulant Screen (LA1, DRVVT)</b>	82.5 seconds	77.7 seconds	69.7 seconds
<b>Lupus Anticoagulant Confirmation (LA2)</b>	34.6 seconds	35.6 seconds	36.3 seconds
<b>LA1:LA2 Ratio</b>	<b>2.38</b>	<b>2.18</b>	<b>1.92</b>

\*APTT = Activated Partial Thromboplastin Clotting Time

**Toprani Advanced Lab Systems**  
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**Dr. Harsukh Toprani** M.D.  
**Dr. Tushar Toprani** M.D.

Lab Ref No. : **R860504**  
Age / Sex : 34 Year(s) / Female  
Pt. Id :  
Reg. Date : 12/01/2021 08:07  
Accession No. : 10  
Report Status : Final

12 HRS FASTING

**COAGULATION**

Specimen : CITRATE PLASMA LA	Coll. 12/01/2021 08:25 Lab Collection	Result(s)	Biological Reference Interval (LABI)
Test Parameter			
Phospholipid Syndrome Panel			
APTT (Test), LA responsive	35.6 Sec	21.6 - 31.0	(Out Detection)
APTT (Control)	25.7 Sec		(Out Detection)
Lupus Anticoagulant Screen (LA1, DRVVT)	82.5 Seconds	32.1 - 44.7	(Out Detection)
Lupus Anticoagulant Confirmation (LA2)	34.6 Seconds	28.4 - 36.0	(Out Detection)
LA1 : LA2 Ratio	2.38	1.00 - 1.40	See below for interpretation

**Lupus Anticoagulant detected.**  
Followup case Old No K194015 - 05/03/2019  
Findings Discussed.  
Needs clinical correlation

Test note  
Interpretation of LA 1 : LA 2 ratio  
≥ 1.40 : Presence of Lupus Anticoagulant likely  
≤ 1.40 : Absence of Lupus Anticoagulant

Tests are done using Russell's Viper Venom test as per recommendations of International Society of Thrombosis and Hemostasis.  
Collection, storage and processing of sample are important. Mild abnormalities may not be clinically significant.  
This could be due to transient reasons. Kindly contact the lab if required.  
The diagnosis of APS requires at least one of the clinical criteria plus the presence of either a LA or an ACL.  
The LA or ACL must be shown to persist for at least six weeks before the diagnosis of APS may be made.  
Test could be abnormal if patient is on anticoagulants. These need to be stopped for at least 12 days.  
Lupus among studies can be done if anti coagulants cannot be stopped which though not conformatory helps in evaluation.  
Associated tests: ACL Ig G & Ig M / Anti Beta 2 glycoprotein Ig G & Ig M (not available in lab)

— End Of COAGULATION Report —

Dr. Biren Bhatt  
MBBS, DCP (Path)  
GMC No. G-18376  
Reported On : 13/01/2021

Figure- 1: USG scan- 12-1-21

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**Dr. Harsukh Toprani** M.D.  
**Dr. Tushar Toprani** M.D.

Lab Ref No. : **R978695**  
Age / Sex : 34 Year(s) / Female  
Pt. Id :  
Reg. Date : 17/06/2021 08:09  
Accession No. : 10  
Report Status : Final

12 HRS FASTING

**COAGULATION**

Specimen : CITRATE PLASMA LA	Coll. 17/06/2021 08:20 Lab Collection	Result(s)	Biological Reference Interval (LABI)
Test Parameter			
Phospholipid Syndrome Panel			
APTT (Test), LA responsive	37.4 Sec	21.6 - 31.0	(Out Detection)
APTT (Control)	26.5 Sec		(Out Detection)
Lupus Anticoagulant Screen (LA1, DRVVT)	77.7 Seconds	32.1 - 44.7	(Out Detection)
Lupus Anticoagulant Confirmation (LA2)	35.6 Seconds	28.4 - 36.0	(Out Detection)
LA1 : LA2 Ratio	2.18	1.00 - 1.40	See below for interpretation

**Lupus Anticoagulant detected**  
Followup case Old No : K194015 (05/03/2019) and R860504 (12/01/2021).  
Test note

Interpretation of LA 1 : LA 2 ratio  
≥ 1.40 : Presence of Lupus Anticoagulant likely  
≤ 1.40 : Absence of Lupus Anticoagulant

Tests are done using Russell's Viper Venom test as per recommendations of International Society of Thrombosis and Hemostasis.  
Collection, storage and processing of sample are important. Mild abnormalities may not be clinically significant.  
This could be due to transient reasons. Kindly contact the lab if required.  
The diagnosis of APS requires at least one of the clinical criteria plus the presence of either a LA or an ACL.  
The LA or ACL must be shown to persist for at least six weeks before the diagnosis of APS may be made.  
Test could be abnormal if patient is on anticoagulants. These need to be stopped for at least 12 days.  
Lupus among studies can be done if anti coagulants cannot be stopped which though not conformatory helps in evaluation.  
Associated tests: ACL Ig G & Ig M / Anti Beta 2 glycoprotein Ig G & Ig M (not available in lab)

— End Of COAGULATION Report —

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GMC No. G-18376  
Reported On : 19/06/2021 17:07

Figure- 2: USG scan- 17-6-21

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**Dr. Harsukh Toprani** M.D. (Path & Bs)  
**Dr. Tushar Toprani** M.D. (Path)  
GMC No. G-18376

Lab Ref No. : **K290353**  
Age / Sex : 34 Year(s) / Female  
Pt. Id :  
Reg. Date : 31/12/2021 06:42  
Accession No. : 10  
Report Status : Final

12 HRS FASTING

**COAGULATION**

Specimen : CITRATE PLASMA LA	Coll. 31/12/2021 08:59 Lab Collection	Result(s)	Biological Reference Interval (LABI)
Test Parameter			
Phospholipid Syndrome Panel			
*APTT (Test), LA responsive	37.2 Sec	21.6 - 31.0	(Out Detection)
*APTT (Control)	21.9 Sec		(Out Detection)
*Lupus Anticoagulant Screen (LA1, DRVVT)	69.7 Seconds	32.1 - 44.7	(Out Detection)
*Lupus Anticoagulant Confirmation (LA2) 36.3 Seconds		28.4 - 36.0	(Out Detection)
*LA1 : LA2 Ratio	1.91	1.00 - 1.40	See below for interpretation

**Lupus Anticoagulant detected.** May follow up & repeat after 12 weeks.  
Needs clinical correlation.  
Followup case.

— End Of COAGULATION Report —

Dr. Biren Bhatt  
MBBS, DCP (Path)  
GMC No. G-18376  
Reported On : 31/12/2021 10:30

Figure- 3: USG scan- 31-12-21

**DIYAM IMAGING**  
Passion | Dedication | Precision  
Digital X-ray | High Resolution Sonography | White Body Color Doppler | Advanced 3D/4D Sonography | USS Gated Procedure | Radiological Procedure

**Dr. Alpesh Pancholi** M.D. (Radiology)  
Reg. No. G-55848  
Consultant Pathologist & Sonologist  
Certified Sonologist for Fetal Medicine Foundation, UK

**First Trimester Screening Report**

**Vimma Vimma**  
Date of birth : 11 October 1988, Examination date : 25 March 2022  
Address : Vadodra

Referring doctor : Dr. Shubh Bhal D  
Mobile phone : 9624501834  
Address : Dwaraksh Hospital

**Maternal / Pregnancy Characteristics:**  
Racial origin : South Asian (Indian, Pakistani, Bangladeshi)  
Parity : 2, Spontaneous deliveries between 35-37 weeks : 1, 31-35 weeks : 0, Deliveries at or after 37 weeks : 1.  
Maternal weight : 53.3 kg, Height : 154.0 cm.  
Smoking in this pregnancy : no, Diabetes Mellitus : no, Chronic hypertension : no, Systemic lupus erythematosus : yes, Autoimmune thyroid disease : no, Preeclampsia in previous pregnancy : no, Previous small baby : yes, Patient's mother had preeclampsia : no, Method of conception : Spontaneous.

Last period : 01 January 2022  
EDD by dates : 08 October 2022

**First Trimester Ultrasound:**  
US machine : GE Voluson E8 BT 19, Probe : C2-9, Visualization : good  
Gestational age : 12 weeks + 2 days from CRL, from BPD  
EDD by dates : 05 October 2022

**Findings**  
Fetal heart activity : Alive fetus visualized  
Fetal heart rate : 175 bpm  
Crown-rump length (CRL) : 60.8 mm  
Nuchal translucency (NT) : 1.9 mm  
Biparietal diameter (BPD) : 18.4 mm  
Ductus Venosus (PV) : 1.050 posterior low normal  
Placenta : Anterior, low normal  
Cord : 3 vessels  
Chromosomal markers : Normal karyotype present, Trisomy 21/18/13 : normal  
Fetal anatomy : Skullbrain : appears normal, Spine : appears normal, Heart : 4-chamber Heart appears normal, Abdominal wall : appears normal, Stomach : visible, Bladder / Kidneys : Bladder visible, Hands : both visible, Feet : both visible

Uterine artery PI : 2.62 equivalent to 1.270 MUM  
Mean Arterial Pressure : 84.9 mmHg equivalent to 0.370 MUM  
Endocervical length : 60.9 mm

**Risks / Counseling:**  
Operator : Alpesh Pancholi, FMP No. 82548  
Condition : Trisomy 21  
Background risk : 1:375  
Adjusted risk : 1:7495

Page 1 of 2 printed on 25 March 2022 - Vimma Vimma examined on 25 March 2022

Figure- 4: 25-3-22 Pregnancy Scan



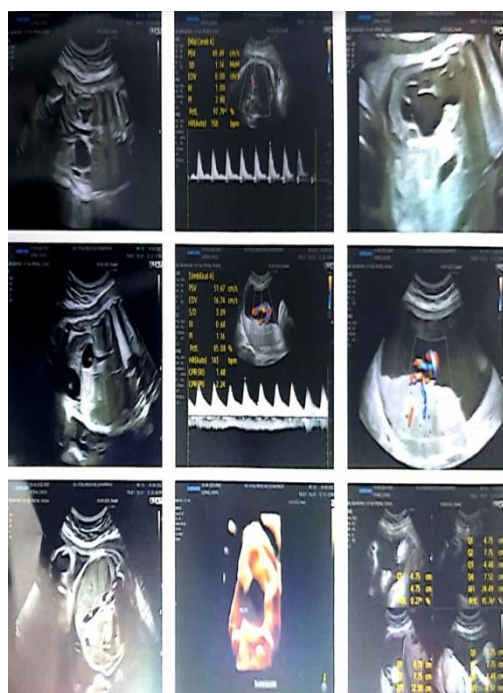


Figure- 5: Anomaly Scan Doppler study



Figure- 6: Delivery on 14-9-22 baby boy 3.5kg

#### OBSERVATION AND RESULTS:

- Data based on clinical presentation were collected before and during treatment and are presented in the tabular form. (Table-3)
- On 2<sup>nd</sup> February, 2022, patient conceived & USG conformation was done on 11<sup>th</sup> February, 2022.
- Patient had delivered a full term normal baby boy through LSCS having 3.5kg weight on 14<sup>th</sup> September, 2022 without any complications at private hospital in Baroda.
- Baby cried well immediate after delivery with the APGAR score 10/10. Both newborn and mother are stable and excellent in condition now.
- Patient had relieved from symptoms like poor appetite, sleep disturbance and constipation as well psychological upsets during the treatment.

- No significant complication is evident during the course of study.

#### DISCUSSION:

Auto-immune diseases are associated with formation of autoantibodies against self-body organs and tissues due to the altered or mutation in the immune cells. One of such auto-immune conditions found associated with these lifestyle disorders is antiphospholipid syndrome.

**Virechana** removes the *Avarana* produced by *Kledaka Kapha* and pacifies the vitiated *pratilomavayu*.

For conception proper functioning of reproductive system, Menstruation, healthy ovum & sperm are of prime importance. (*Garbha Sambhav Samagri*). It is very necessary for embedding fertilized zygote in the uterine wall, as well as it should have proper elasticity needed for the growth of the Foetus. Keeping this thing in mind **basti** had given to the patient *Garbhashaya* i.e. uterus provides nourishment and space for

growing foetus in it. General **basti** regulates the nervous control & regulates CNS controlling the pelvic organs. Hence by governing HPO axis through hypothalamus it helps in maintenance of follicular growth. **Snehapan** regulates the digestive activity, clean alimentary tract, physical strength. **Phalagrutha** were helped to bring balance & strength to the menstrual system because it contains anabolic action it increases more secretory units. In **Chitrakadi vati** by its lekhana properties all the catabolic phenomenon of the body are taken as the result of agni, so it was one the most suitable drugs to evaluate its effect for rupturing follicle. **Garbhapalaras** works as uterine tonic and **Bhijadharakayoga** having the properties to enhances the reproductive functions through this which is helped in the infertility. **Lakshmanarishtam** with **Lakshmana** as its main ingredient, balances the three *doshas* in the body, ensures quality of the sperm and ovum and prepares the womb for pregnancy and child birth.

#### CONCLUSION:

In Allopathic medicine, the patient with Antiphospholipid syndrome has to take a long-term anticoagulant therapy, which significantly affects the life of the persons affected with syndrome as they are prone to bleeding risks due to the effect of blood thinner medicines. Whereas in *Ayurveda* this syndrome is treated with natural herbal formulation which doesn't cause such side effects to the body and efficiently helps in treating Antiphospholipid syndrome with a holistic approach of herbal medications, lifestyle and dietary modifications. All above mentioned *Ayurvedic* therapy and drugs work best for *Kaphaja* and *Vattaja dushti* which we can correlate to APLA and show excellent result on *raktva vaha* as well *artava vaha strotasadushti*.

#### CONSENT OF PATIENT:

The consent of patient has been taken for publication and procedure without disclosing the identity of patient.

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