Case Report

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Primary Antiphospholipid Antibody Syndrome: A Case Report

Internal Medicine Section

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ABSTRACT

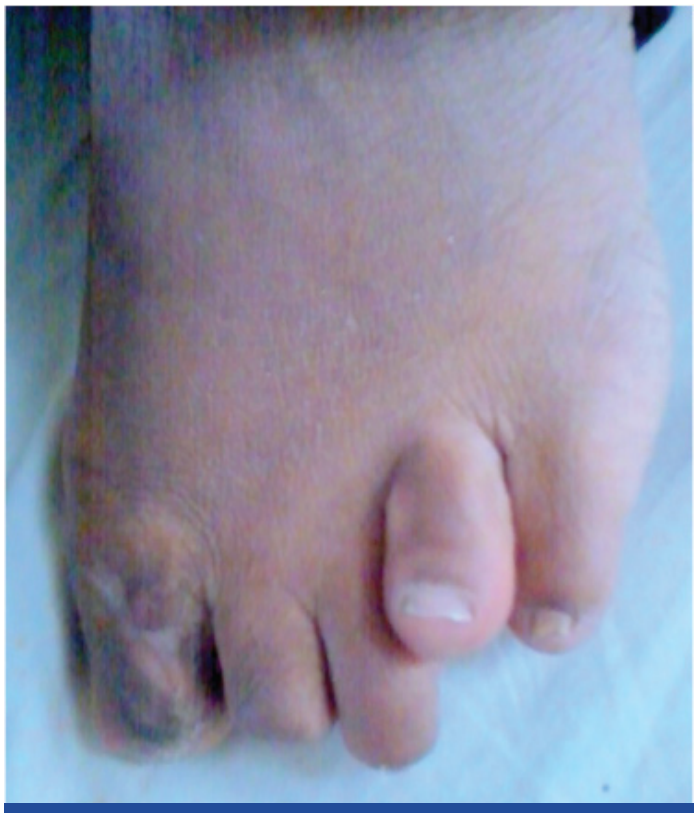
Primary Antiphospholipid antibody syndrome is a rare disease associated with thromboembolic events which may affect either the arterial or the venous vasculature. It presents with an increased risk of thrombosis in pregnant woman leading to repeated fetal losses. We present here a case of primary antiphospholipid antibody syndrome in young women who had previous event of gangrene of toes leading to their amputation and repeated fetal losses.

Keywords: Fetal loss, Lupus antibody, Thrombosis, Vasocclusive events

CASE REPORT

A 22-year-old female with seven months of amenorrhea presented with chronic headache since the past four months. She has been diagnosed with high blood pressure since the same time. She had a complete spontaneous pregnancy loss at six weeks of gestation, one year back. She also had vasculopathy of distal anterior and posterior tibial arteries which resulted in the obstruction of the arteries and gangrene of first 3 toes of left foot for which she underwent disarticulation [Table/Fig-1].

Her blood pressure recording was 140/100 mm of Hg, pulse rate was 88/min. Fundus examination was normal. Detailed general physical and systemic examination revealed no abnormal findings except the amputed toes in left foot from previous thromboembolic event. All peripheral pulses were well felt. On abdominal examination, fundal height corresponded to 28 weeks of gestation, fetal heart sounds were heard and regular.



[Table/Fig-1]: First three toes amputed secondary to micro thrombi induced gangrene

Her complete blood count, liver function test renal function test, glucose tolerance test were all within the normal limits. Ultrasonogram showed single live fetus of 28 weeks gestational age with adequate amniotic fluid and placenta well above the internal os. PT INR (Partial Thromboplastin/International Normalised ratio) was 1.12 on admission.

In view of previous spontaneous abortion with simultaneous thrombotic event a complete antinuclear antibody profile was done. She was strongly positive for Lupus antibody, Anti Cardiolipin antibody and ds DNA antibody with deficiency of factor II, V, X. She was diagnosed with Primary APLA syndrome and put on oral warfarin 5mg OD to be taken on alternate days and antihypertensives labatelol 100mg, nifedepine 20 mg twice daily. She was admitted for further monitoring. The patient was discharged after four days with adequate control of blood pressure. She was counseled about the risks of pregnancy loss. She was continued on Warfarin 7.5mg OD to be taken on alternate days and methyl dopa 500mg three times a day with Aspirin 75 mg OD.

The patient presented with inability to appreciate fetal movements one month after she was discharged. She was diagnosed with intrauterine death and the fetus was expelled after induction. The patient was immediately started on low molecular weight heparin 40mg twice a day subcutaneously for 7 days and continued with warfarin 5mg OD to maintain a PT/INR between 2-3. The patient was counseled about the nature of the disease and need for continued medication. She was explained about the risks involved with further pregnancies. She was advised against combined pills for birth control, other methods like progestin only pills, an intrauterine device, condoms, a diaphragm or tubectomy were advised. In case she desired to become pregnant inspite of the known risks she was advised to consult regarding switching over from warfarin to heparin.

DISCUSSION

The occurrence of APLA associated with vasocclusive events without any underlying disease process is termed the primary antiphospholipid antibody syndrome [1]. The clinical criteria for its diagnosis include evidence of thrombosis like peripheral gangrene secondary to venous arterial or small vessel thrombosis. Repeated fetal loss before 10 weeks or unexplained after 10 weeks. Laboratory criteria include presence of anticardiolipin antibodies (IgG or IgM isotype in medium to high titers), Lupus antibody, prolonged aPTT (activated partial thromboplastin time), and Dilute Russell's viper venom time, kaolin clotting time, Dilute PT on 2 or more occasions 6 weeks apart [2].

Various theories have been proposed to explain the formation of APLA. Auto immunity against self phospholipids may give rise to an escaped clone before it is corrected. This may occur during apoptosis of senile or defective cells when the inner membrane phospholipids are exposed in apoptotic blebs due to delay in clearing such cells, as seen during overloading of clearing system. The final hypothesis states that APLA may be a result of cross-reacting antibodies induced by exogenous sources [3].

The pathogenesis of these APLA to cause thrombotic events is not fully understood. Activation of endothelial cells by interaction with beta 2-glycoprotein I triggering coagulation pathways coupled with inhibition of antithrombin III, activated protein C, inhibition of fibrinolysis and interference with tissue factor and thrombin promote thrombosis [4]. According to another postulated hypothesis thrombocyte aggregation within the vascular bed with thrombosis caused by a secondary hit such as minimal vascular injury or transient hypotension sets the stage for extensive microthrombi [5].

The most commonly detected subgroups of antiphospholipid antibodies are anti beta 2 glycoprotein 1, lupus anticoagulant and anticardiolipin antibodies. Deep vein thrombosis of the legs is the most common manifestation of the antiphospholipid syndrome occurring in 30 to 55 percent of patients [6]. Arterial thromboses are less common and most frequently manifest with features consistent with ischemia or infarction. The brain is the most common site accounting for almost 50 percent of arterial occlusions. Rarely, it can involve the peripheral arteries presenting with gangrene as it occurred in this case one year ago. Cerebral venous thrombosis is not associated with any identifiable cause in 20-25% of cases and a thorough investigation to identify the aetiological factor is warranted in every case to rule out primary APLA [6]. Other prominent manifestations of the APLA syndrome include thrombocytopenia and haemolytic anaemia. Pregnancy in APLA syndrome patients presents with increased risk for fetal loss. Multiple infarctions of the placenta due to micro thrombi is a frequent finding in APLA patients, if placental infarction is extensive it may cause severe growth retardation of the fetus leading to repeated pregnancy losses [7]. Toxemia of pregnancy is also commonly seen in such patients. Since pregnancy is a hypercoaguable state presence of APLA can precipitate thromboembolic events at anytime of the pregnancy or during the immediate postpartum period [3]. With the availability of safer and efficient anticoagulation successful pregnancy can now be planned in patients with APLA. Low-molecular-weight heparin is the anticoagulant of choice in the treatment of pregnant women with the APLA syndrome [8].

CONCLUSION

Primary antiphospholipid antibody syndrome is a rare condition and should be suspected when there are clinical symptoms such as deep vein thrombosis, arterial occlusive events, recurrent fetal loss, vasospastic phenomenon or transient ischemic attacks without any underlying condition causing hypercoagulability. Continued anticoagulation helps prevent any thrombotic events and successful pregnancy can be possible with proper selection of anticoagulants early in pregnancy with minimal risks to both mother and baby.

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