CASE REPORT

Deep Vein Thrombosis in Anti Cardio Lipin Antibody Positive Woman: a case report

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ABSTRACT

Anti-phospholipid syndrome (APS) is an autoimmune disease with many different presentations including thrombosis and pregnancy loss. Number of antibodies are implicated in its pathogenesis most importantly antibodies against beta 2- glycoprotein I (B2-GP I). In small subset of patients with deep vein thrombosis (DVT), secondary to APS, anti cardiolipin antibodies are positive. We describe a rare case like this of APS in Pakistani woman who presented with DVT, was treated with warfarin and low molecular weight heparin in hospital and discharged on warfarin with continued follow-up. Physicians should be acutely aware of different presentations of APS and its treatment. The patient we describe has history of multiple still births but APS was only diagnosed later on when she presented to us with DVT.

Keywords: Antiphospholid syndrome, autoimmune, thrombosis

INTRODUCTION

Anti-phospholipid antibody syndrome is an autoimmune disease in which body's immune system makes autoantibodies which are detected in plasma as: lupus anti-coagulant (LA), anti-cardiolipin (aCL) or antibodies against beta-2 glycoprotein I (B2-GP I).The deep veins of the lower limbs and the cerebral arterial circulation are the most common sites of venous and arterial thrombosis, respectively. However, any tissue or organ vascular bed can be affected including placental vessels leading to fetal loss[1].

APS can occur with no underlying disease (Primary APS) or with underlying disease (secondary APS). Actual prevalence of APS is unknown in Pakistan but in a study carried out by Pakistan Armed Forces Hospital, Mianwali and CMH, Okara it was concluded that in patients with DVT, aCL antibodies are present in 2% males and 1% females[2].

We report a rare case of APS in which patient is aCL antibodies positive and presented with DVT. Also, her diagnosis was missed on recurrent abortions until it was finally brought to attention due to her DVT.

CASE REPORT

We present a case of 28years old Pakistani female who presented in out-patient department with left lower limb swelling extending up to the knee joint for the 4 days. Swelling started after she was bed ridden for 10 days, because of intra uterine death of her full term fetus. Swelling was gradual in onset with no specific aggravating or relieving factors and was associated with sudden onset of worsening left lower limb pain which was dull, localized involving knee joint, aggravated on movement and relieved only on painkillers. She denies any history of trauma, fever, infection, photosensitivity, oral contraceptive use, weight loss or appetite change and shortness of breath or chest pain, there is no family history of coagulopathy. Obstetrical history is significant for previous two still births and one IUD, no autopsy was performed on dead fetuses.

On examination she was not in acute distress. Left leg was tender, warm and swollen up to knee as compared to right leg, which was essentially normal on examination. There was no skin discoloration or varicose veins. All pulses of lower limb were palpable bilaterally including left dorsalis pedis and left posterior tibial artery.

Initial laboratory reports were significant for increased fibrin degradation products (FDPs=6999), prothrombin time (PT=145) and minimally elevated LFTs. Rest of the results including CBC, DLC and platelet count were within normal limits. Doppler ultra sound of lower limbs was performed which showed thrombus extending from left popliteal vein to left external iliac vein. Right side was normal on doppler ultra sound.

Our differential included Anti-phospholipid antibody syndrome, Deep vein thrombosis and SLE. We suspected Anti phospholipid syndrome as the most likely diagnosis. Further serum testing revealed that patient is Anti-cardiolipin (Ig M) positive while Lupus anticoagulant (LA), Anti-nuclear antibodies

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(ANA), anti-smooth muscle antibodies (ASA) and anti-mitochondrial antibodies (AMA) were negative.

The patient was started on low molecular weight heparin and warfarin with a target INR if 3.0. On post admission day 8, she was discharged on 5mg of warfarin. Her PT on discharge was 23 while INR was 2. She was counselled about complication of her condition and was asked to follow up on outpatient basis where she is doing well.

DISCUSSION

APS is an autoimmune disease which leads to arterial and venous thrombosis along with recurrent pregnancy loss. It can be primary or associated with other diseases, notably SLE. Persistently elevated APL antibodies are a laboratory prerequisite for the diagnosis of APS.

The Predominant antibodies in this disease are directed against beta 2-Glyco protein I (B2-GP I) and prothrombin[3]. Function of B2-GP I is not well understood in body. Antibodies against cardio lipin are also present in some cases. It is proposed that B2-GP I and B2-GPI antibody complex may interact with certain surface receptors on platelets and endothelium leading to prothrombic state. The possible role of complement activation in APS is also suggested as demonstrated by increased amount of complement activation products in plasma of patients with APS who have cerebral stroke[4]. Complement activation has also been hypothesized to be cause of recurrent pregnancy loss in APS.

APS can present as thrombosis, miscarriage, heart murmur, thrombocytopenia, nephropathy, unexplained adrenal insufficiency, avascular necrosis in absence of other risk factors and pulmonary hypertension. The diagnosis of APS is defined by two major components: occurrence of at least one clinical feature and presence of at least one anti-phospholipid antibody[5].

APS is treated with long term anti-coagulant therapy with INR goal 2.0-3.0 and regular monitoring. Pregnant patients are switched to low molecular weight heparin as warfarin is category X drug. Un-fractioned heparin (UFH) can also be used but, at greater intensity of usual prophylactic dose, the risk of osteopenia is higher with UFH[6]. New medications are available in market which can be given safely with less frequent monitoring. Physicians should be aware of the different presentations of APS and various antibodies involved in the pathogenesis. Pregnant patients with recurrent abortion especially in first trimester or with DVT mist be investigated for APS as a cause of condition. Moreover, patients should be explained about their limitations because of this disease and counselled accordingly.

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