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Original Research Paper

Cardiology

APLA SYNDROME PRESENTING WITH ACUTE STENT THROMBOSIS IN A 46-YEAR-OLD FEMALE: A CASE REPORT

T Nihal Muniah	Final Year General Medicine Resident – SVS Medical College
Medhasa Gillela	MBBS
Nalla Prathyusha	MBBS
B Mounika	Consultant Cardiologist – SVS Medical College

ABSTRACT Antiphospholipid Antibody Syndrome is a multisystem autoimmune disorder of hypercoagulability with various clinical manifestations. Few estimations show that incidence of Antiphospholipid antibody syndrome is about 5 new cases per 100,000 persons per year.[1] The syndrome can occur in isolation as Primary Antiphospholipid antibody syndrome or Secondary to connective tissue disorders. It is characterized by antiphospholipid antibodies which play role in thrombus formation, microvascular injury and accelerated atherogenesis. Acute myocardial infarction can be a first presentation although it is a rare manifestation. We report a case of 46-year-old female with Myocardial Infarction with past history of usage of oral contraceptive pills (OCP), normal obstetric history. In-situ thrombus occluding the 60% of right coronary artery was noticed and was planned for Percutaneous coronary intervention (PCI). Stent to the RCA was done and then patient had acute stent thrombosis for which a rescue PCI was done. This acute stent thrombosis raised a high suspicion for a hypercoagulable state. During the procedure skin tightness was noticed in the right fore-arm and investigations were sent for further evaluation then diagnosed with Antiphospholipid antibody syndrome, managed accordingly and is on regular follow up. This report is a rare case of Antiphospholipid antibody syndrome with normal obstetric history and presenting with Acute stent thrombosis in a middle-aged female which could have been unforeseen and could have led to serious catastrophic complications without proper required management.

KEYWORDS : Antiphospholipid antibody syndrome, Antiphospholipid antibody, Acute myocardial infarction, Antiphospholipid antibody syndrome with myocardial infraction, Antiphospholipid antibody syndrome in female, Stent thrombosis, Oral contraceptive pills, Percutaneous coronary intervention.

INTRODUCTION

Anti-Phospholipid Antibody Syndrome (APS) is a multi-systemic autoimmune disorder of hypercoagulability characterized by a combination of arterial and venous thrombosis and gestational complications (recurrent fetal loss, premature birth) often accompanied by thrombocytopenia and persistent elevation of serum antiphospholipid antibodies. The syndrome can occur in isolation or in association with connective tissue disorders like systemic lupus erythematosus in 40% of the cases.[2] Cardiac manifestations can occur in Antiphospholipid Antibody syndrome due to immune mediated or thrombotic mechanisms, some of them include Myocardial Infarction, Cardiomyopathy, Intra-cardiac Thrombus, Valve thickening and dysfunction, Early Bypass Graft failure, Micro and macrovascular coronary artery disease and premature atherosclerosis. Myocardial infarction can develop in about 2.8% of patients with Antiphospholipid antibody syndrome especially in young age.[3] Although Myocardial Infarction is uncommon it can be the first presenting symptom in APS. Clinician should be aware that any failure or delay to recognize APS as an underlying cause to the various presenting symptoms may lead to loss of opportunity to prevent life threatening complications and must be aware that multi-disciplinary therapeutic approach is necessary in these cases. Herein we report a rare case of Antiphospholipid antibody syndrome in a middle-aged female presenting with Acute stent thrombosis who initially presented as ST-elevation Myocardial Infarction with normal obstetric history.

CASE STUDY

A 46-year-old female came to our ER with complaints of giddiness associated with nausea since the past one hour and with history of loss of consciousness for about 5-10 minutes before she came to the hospital. There were no complaints of chest pain, shortness of breath, vomiting, fever, sweating and abdominal pain. She is a known diabetic for 5 years and is on regular Metformin therapy. History of regular OCP usage. She has no other comorbidities and no addictions. Her vitals on examination, Blood Pressure was 90/60mmhg; Pulse Rate = 90bpm which was regular; saturation was maintaining at room air; random blood sugars were 173mg/dl and systemic examination was unremarkable.

An Electrocardiogram was done which showed 2mm ST elevations in Lead II, Lead III, Lead aVF; Lead III elevations greater than Lead II; Reciprocal changes were present in Lead I and aVL.

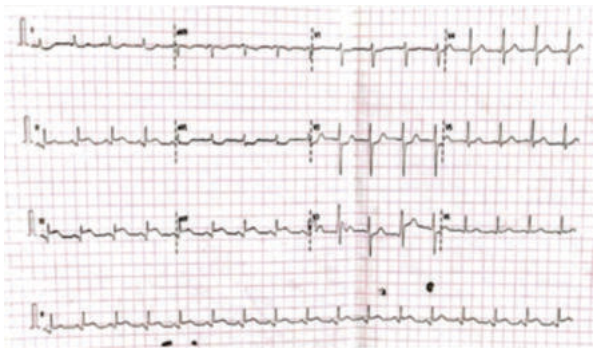

Figure 1: ECG showing 2mm ST elevations in lead II, lead III, lead aVF; Lead III elevations greater than Lead II, Reciprocal changes in Lead I and aVL.

Provisional diagnosis of Inferior Wall Acute ST-elevation Myocardial Infarction was made and high doses of antiplatelets and statins were given along with supportive therapy. Angiogram revealed proximal 60% occlusion in the RCA. Primary PCI was done on and within 6 hours patient had chest discomfort and breathlessness and we had high suspicion for acute stent thrombosis. While performing Check Angiogram, considerable tightness of skin over the right forearm was noticed and when inquired about this she gave history of similar complaints for the past 1 month. Angiogram revealed total occlusion of Right coronary artery. Rescue PCI was performed and stenting was done to both proximal and

distal RCA. Antinuclear Antibody profile was done which showed borderline positive Anti SS-B, Anti Scleroderma-70, Anti-Ribosomal P Protein and strong positive Anti-Centromere Protein B. Provisional diagnosis of limited cutaneous systemic sclerosis was made and the patient was then started on Methotrexate and Hydroxychloroquine as per the Rheumatologist's advice and APLA panel was then planned. Anticardiolipin Antibody IgA and Anti B2- Glycoprotein 1 IgM was positive and a diagnosis of APLA Syndrome was made. She was then started on Anti-Coagulation with Heparin and Acitrom. Initial INR was 1.25 and Acitrom dosage was then titrated to maintain a target INR between 2 to 3. Patient is now in regular follow up with us.

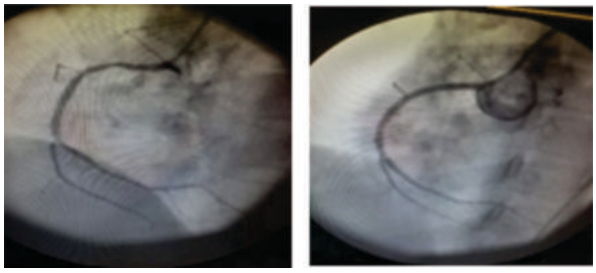

Figure 2 and 3: Pre-stenting and Post-stenting Coronary Angiogram images.

DISCUSSION

APS is characterized by the presence of Antiphospholipid Antibodies (APLA) mainly Anticardiolipin antibody, Lupus Anticoagulant, Antibeta-2 Glycoprotein I. [4] APLA causes arterial and venous thrombosis and most commonly manifests with Deep vein thrombosis, Pulmonary thromboembolism, Stroke, Gestational complications.[2]

The actual incidence of APS is unknown. Estimates have indicated an incidence of around 5 new cases per 100,000 persons per year with a prevalence of around 40-50 cases per 100,000 persons.[1] It is more common in females than in males with a ratio of 3.5:1.[8] Venous thrombosis usually Deep vein thrombosis (DVT) is the most common APS clinical manifestation. In the arterial system, the central nervous system is the most commonly affected site. Stroke is the most frequent arterial clinical manifestation. There is some association between APS and Pregnancy morbidity, approximately 10-15% of women with recurrent miscarriages are found to have positive APLA and diagnosed to have obstetric APS.[9] APS rarely has cardiac manifestations. APS has shown to have high rate of recurrence and long-term anticoagulation with Vitamin K Antagonists (VKA) is the standard care for patients with thrombosis.

Our case shows that Acute coronary syndrome can occur in a patient even without any conventional atherosclerotic risk factors or preexisting structural heart disease. Patients with APS and arterial thrombosis should be given either low-dose aspirin with standard-intensity warfarin (INR range 2 to 3) or warfarin at an INR >3, according to recommendations from the 13th and 16th International Congresses on Antiphospholipid Antibodies.

CONCLUSION

Antiphospholipid antibody syndrome in females most typically presents with obstetric complications. Though myocardial infarction is uncommon, statistics show that it can occur for the first time in a young age. This case report makes it very clear that any indication of the presence of a connective tissue disorder at any age, even without any symptoms shouldn't go unrecognized because they might manifest in a plethora of ways, particularly in this instance given the high mortality rate associated with APS. Therefore, additional assessment, diagnosis, and multidisciplinary management should be carried out. Anticoagulant medication is indicated even after PCI in every case of Acute Myocardial Infarction in APS. It is advised to use antiplatelet and anticoagulant medication for a long term.

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