

Case Report

Asherson's syndrome: A Case Report

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Abstract: Catastrophic APS (CAPS) is the most severe form of Antiphospholipid antibody syndrome with multiple organ involvement which occurs over a short period of time, usually associated with microthrombosis. We report a case of CAPS in a 39 year old male patient admitted with sudden onset of altered sensorium developing after pain in right lower limb over a period of 5 days. Past history of stroke was present which was not evaluated. Patient was in altered sensorium with bluish discoloration of right thigh and leg. Lower limb arterial Doppler study revealed extensive thrombosis of right Popliteal, femoral, iliac arteries extending in to distal aorta. Computerized Tomography of Brain revealed multiple infarcts in Brain i.e. Right middle cerebral artery, Left posterior Cerebral artery, with a midline shift of 8 mm. Patient also had deranged renal function. ECG, Echocardiography and cardiac enzymes revealed Inferior wall Myocardial Infarction. Patient's Lupus anticoagulant (LA) was positive with elevated IgG (29.6 U/ml (n-[0.1-15]) aCL antibodies with normal IgM and anti-b-2 glycoprotein-1 IgG/IgM antibodies. Patient expired due to Multi organ dysfunction Syndrome (MODS). Definite CAPS is defined as thromboses in 3 or more organs developing within a week, microthrombosis in at least one organ and persistent aPL positivity. Young patients with thrombosis should be evaluated for the relatively common disease of APS as mortality of CAPS is about 50%.

Keywords: Antiphospholipid antibody Syndrome, Aortic Thrombosis, Cerebral Infarcts, β 2 Glycoprotein 1 antibodies, Asherson's syndrome, Renal Failure, Multi organ Dysfunction syndrome (MODS).

INTRODUCTION

Antiphospholipid syndrome (APS) is an autoimmune multisystem disorder that manifests as recurrent venous or arterial thrombosis and/or fetal loss [1], Characterized by persistently elevated levels of antibodies directed against membrane anionic phospholipids (i.e., anticardiolipin [aCL] antibody, antiphosphatidylserine) or their associated plasma proteins, predominantly beta-2 glycoprotein I (apolipoprotein H); or evidence of a circulating anticoagulant [2].

APS occurs in isolation (Primary Antiphospholipid Syndrome) or in association with connective tissue diseases (Secondary Antiphospholipid Syndrome), particularly systemic lupus erythematosus [2]. Manifestations in APS may include myocardial infarction (MI) [3], valve thickening/dysfunction, angina, Cardiomyopathy, vegetations, coronary bypass graft thrombosis, intracardiac thrombus and pulmonary embolism/hypertension, cerebrovascular accident [CVA], sinus thrombosis, seizures, chorea, reversible cerebral vasoconstriction syndrome [1].

CASE REPORT

A 39 year old male patient was brought to Emergency room in a state of altered sensorium referred from outside hospital. History from relatives revealed that he is a driver by occupation with history of smoking since 2 years (1 pack years). Patient was non-specifically sick since 20 days with nausea and vomiting. Patient complained of pain in right foot and leg which extended mid thigh over a period of 5 days. Patient developed altered sensorium and shortness of breath since 2 days for which he was admitted in local hospital. Past history of Left Hemiparesis was present 4 years ago which improved over a period of 1 year. Patient was not evaluated at that time.

Clinical examination revealed that patient's Glasgow Coma Scale (GCS) was E₂V₁M₂. Patient was kept under mechanical ventilation. Tachycardia, Hypotension, cold clammy extremities was present. Examination of lower limbs revealed absent dorsalis pedis, Popliteal and femoral pulses in right side along with feeble pulses in left lower limb. Bluish discoloration of right lower limb from foot till mid

thigh was present. Patient developed black discoloration of right foot on day 2 of admission suggestive of gangrene.

Electrocardiogram of patient showed ST segment elevation in leads II, III and aVF, ST-T changes in I, aVR and V1-V5. Laboratory findings were as follows: CK: 3001 U/L, CK-MB: 431 U/L, Troponin: >100 ng/mL and echocardiography showed Inferior wall and anteroseptal hypokinesia with an ejection fraction of 30–40%. Investigations revealed total white blood cell count of 14,100 /mm³, Hemoglobin of 10mg/dl and platelet count was 99,000. The arterial blood gases had pH of 7.31, a PO₂ of 75 mmHg, PCO₂ of 35.5mmHg and 17.9 mmol/l of bicarbonate. Renal function test was abnormal with Creatinine of 4.1mg/dl and Blood urea of 120mg/dl. Liver function test was normal.

CT brain showed large Right Middle cerebral artery infarct, left sided midline shift of 8mm, subacute left posterior cerebral artery infarct, Old infarct with gliosis on right side (Images 4 and 6). Patient's Lupus anticoagulant (LA) was positive with elevated IgG

(29.6 U/ml (n-[0.1-15]) aCL antibodies with normal IgM and anti-b-2 glycoprotein-1 IgG/IgM antibodies.

Rheumatologic tests showed normal Thyroid and Lipid profile (low density lipoprotein (LDL): 166 mg/dL, triglyceride (TG): 162 mg/dL, high density lipoprotein (HDL): 44 mg/dL, HbA1C: 5.9%). Patient had normal complement 3C (C3C): 1.66 g/L (0.9–1.8), complement 4C (C4C): 0.37 g/L (0.1–0.4), protein C: 131% (70–140%), protein S: 53% (60–123%), Homocysteine: 11.1 μmol/L (0–15 μmol/L), anti-Sjogren Syndrome A (SSA): 0.256 (<1) and anti-Sjogren Syndrome B (SSB): 0.351 (<1).

Patient was given Alteplase 100mg over a period of 1.5 hours with 15mg bolus. Patient was started on heparin infusion. In spite of treatment, Condition of patient deteriorated on 2nd day with oliguria, shock and Multiple Organ Dysfunction Syndrome (MODS). Patient required blood transfusion, inotropic support and crystalloids which did not improve his condition. Patient expired on 3rd day due to MODS.



Fig-1: Bluish discoloration of Right Lower Limb of patient

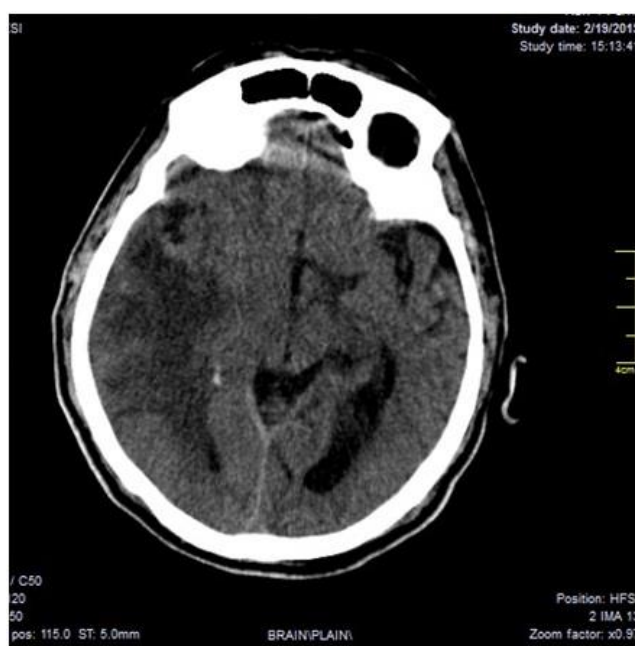


Fig-2a: Computerized tomography of Brain showing multiple Infarcts



Fig-2b: Computerized tomography of Brain showing midline shift



Fig-3: Gangrene and discoloration of Right foot

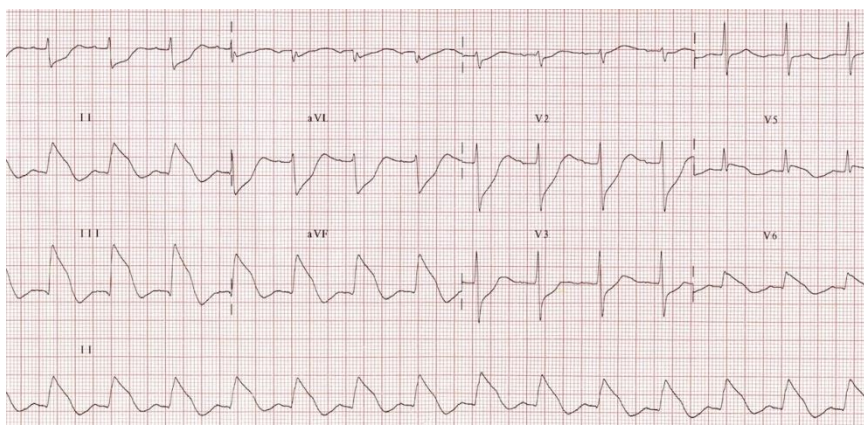


Fig-4: Electrocardiography showing Inferior wall Myocardial Infarction

DISCUSSION

APS syndrome is the cause of 14% of all strokes, 11% of myocardial infarctions, 10% of deep vein thromboses, 6% of pregnancy morbidity, and 9% of pregnancy losses [16]. 10-46% of young patients with strokes and in 10% of stroke patients overall are

found to have APS [4]. Stroke patients with APS tend to be younger (42 years vs 62 years). Recurrence rate is 6-30%/year and mortality rate is 10%/year [5, 15]. Most common features of thrombotic disorders in APS are deep vein thrombosis, pulmonary Thromboembolism, and stroke [6]. Patients with APS have been shown to

be at a higher risk of recurrent venous [7, 8] and arterial [9, 10] thrombotic events in prospective studies.

Myocardial infarction (MI) under the age of 40 years accounts for around 3% of cases of coronary artery disease [11]. In one study of patients under 45 years of age with MI, 21% had persisting aPL antibodies, meeting diagnostic criteria for APS [12]. MI can be the first manifestation of APS, but it is uncommon as reported in a cohort of 1000 European APS patients, 2.8% initially presented with MI [6].

In a cohort of more than 800 patients with APS under follow-up at Guy's and St Thomas' hospital <1% presented with MI [13]. Our patient presenting with Myocardial infarction, Stroke and arterial thrombosis in case of APS is very rare. Acute renal failure in aortic thrombosis due to APS was reported infrequently. Our patient presenting with Asherson's syndrome (CAPS) is rare (<1% of patients with APS are affected) but life-threatening variant of APS presenting with acute thromboses of multiple (usually small) vessels with high mortality [14].

CONCLUSION

Even with appropriate diagnosis and aggressive management, acute MI in antiphospholipid antibody syndrome may lead to a poor outcome. In young patients with Myocardial Infarction, APS should be considered as a possible cause and should be investigated. More emphasis should be laid if there are no coronary risk factors. Renal failure can present as a complication in APS.

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