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CASE REPORT ON PUERPERAL PULMONARY THROMBOEMBOLISM IN SYSTEMIC LUPUS ERYTHROMATOSUS

Obstetrics & Gynaecology

Dr. Ambarkar Namratha* Junior Resident, Department of Obstetrics and Gynaecology, Sree Balaji Medical College and Hospital, Chennai. *Corresponding Author

Dr. T. G. Revathy Professor, Department of Obstetrics and Gynaecology, Sree Balaji Medical College and Hospital, Chennai.

ABSTRACT

Due to physiological changes, pregnancy itself makes a person more susceptible to thrombo-embolic events. This is especially true in the postpartum period. Enhancing the measurement of risk factors makes it easier to identify the women who stand to gain the most from thromboprophylaxis. An elective repeat LSCS was performed at 38 weeks after the patient, a 23-year-old G2P1L1, had anaemia treated with four injections of iron sucrose at 26 weeks of gestation, varicose veins in the right thigh with normal flow in a doppler exam, and a history of previous LSCS. After receiving treatment for a suspected pulmonary thrombosis in the tertiary branches on POD-3, the patient's diagnosis of ANA positivity was later confirmed by CT angiography. This example was given to highlight the importance of risk classification.

KEYWORDS

Varicose veins, pulmonary thrombosis, systemic lupus erythematosus

INTRODUCTION:

Autoantibodies, in particular antinuclear antibodies (ANAs), cause systemic lupus erythematosus, an autoimmune illness affecting several organs. The disease damages the organs by depositing immune complexes on different cells and tissues. A rare manifestation of SLE is pulmonary embolism. Antiphospholipid antibody-positive SLE patients may experience arterial and venous thromboses, which may be linked to recurrent spontaneous miscarriages. The secondary antiphospholipid antibody syndrome is the term used to describe this. Thrombosis may be caused by antibodies directed against endothelial cells, platelets, or clotting factors.

We describe the case of a 23-year-old female patient who experienced chest pain and dyspnea following LSCS and was later diagnosed with a pulmonary embolism.A fragmented workup was initiated due to the lack of established risk factors and overt indications and symptoms. Antibodies that are sensitive and specific to SLE were found as a result of this. We bring latent lupus back into the picture. The likelihood of experiencing a thrombotic event is increased and will rise much more in the presence of hereditary or acquired pro-thrombotic abnormalities and other risk factors.

PATHOPHYSIOLOGY OF ARTERIAL THROMBOSIS AND ATHEROSCLEROSIS IN SLE:

Patients with SLE who have atherosclerosis are linked to both general and SLE-specific risk factors. Age, sex, obesity,dyslipidemia,vascular hypertension, thrombophilia are examples of general risk factors. Lipid profiles alter in SLE patients as a result of pro-inflammatory activation of MCP-1, IL-6 and TNF-alpha. Due to an immune-mediated process, HDL loses its scavenger and anti-inflammatory properties and increases total cholesterol and triglycerides. he neutrophil extra-cellular traps, or NETs, complex is indestructible in SLE patients and is responsible for regulating the apoptotic process, mediating vascular damage, and initiating the thrombotic process. There is an increased risk of CVD linking with several mechanisms in SLE patients, including the production of pro-inflammatory IgG class autoantibodies, an increase in inflammatory interleukins (IL-17, IL-12, and IL-18), alterations in B lymphocyte response, and deficiency of T regulated lymphocytes.Recently, the pathophysiology of thrombosis in patients with SLE has been connected to a polymorphism in the toll-like receptor 2 (TLR2).

Pregnancy, Contraception, And Thrombosis

Pregnancy raises the risk of morbidity and mortality for the mother and the newborn in people with sickle cell disease. Pre-eclampsia, preterm birth, venous and arterial thrombosis, infections, and haematological problems are among the most significant risk factors. Treatment with full doses of LMWH is advised for venous thrombosis during pregnancy. If at all feasible, factor Xa should be assessed in order to modify the dosage of LMWH. A minimum of 24 hours prior to delivery (by induction or cesarean section), LMWH therapy must be stopped. Treatment with LMWH needs to be continued until at least the sixth week following delivery.Progesterone-only contraceptives, such as pills or intrauterine devices, ought to be preferred and safer for individuals

CASE REPORT:

A 23year old woman, married since 3years, G2P1L1, a case of previous LSCS, came as first visit for the antenatal checkup in our hospital at 35weeks of gestation.She had Varicose veins on right lower limb observed during routine checkup for which Lower limb doppler was done found to be normal.She had treated with 4 doses of inj iron sucrose at 26wks of gestation.She was admitted at 38 weeks and was taken up for Elective repeat LSCS.Intraoperative period was uneventful. Postoperative first 48 hours uneventful. Thromboprophylaxis with injection enoxaparin 40mg od was started after 12hrs of surgery in view of superficial varicose veins.On POD-3,Patient developed of sudden onset of breathlessness, orthopnea, cough with expectoration and fever,tachycardia,tachypnea, for which ECG,Chest xray done,ECHO - normal,CT pulmonary angiogram showed filling defects in left segmental and bilateral sub-segmental branches of bilateral descending pulmonary arteries, features suggestive of pulmonary thromboembolism. Patient was given a therapeutic dose of inj enoxaparin 60mg bd and rheumatology opinion obtained to rule out immunological cause. Antinuclearantibody[ANA] done – 2+.Anti double stranded DNA-positive.Anti-neutrophil cytoplasmic antibody[ANCA] – NEGATIVE and patient was switched to oral anticoagulants T.Acitrom 2mg/3mg for alternate days.

DISCUSSION

There are only one or two occurrences of venous thromboembolism during pregnancy out of every 1000 pregnancies, which is a low rate. An estimated 22% of deliveries within the first six weeks of the postpartum period result in a thromboembolic problem. Due to the hypercoagulable nature of pregnancy, the risk of VTE is four to five times higher than in nonpregnant individuals. The puerperal period has the highest rate of VTE because the danger is higher than it is during the prenatal period. Ninety percent of instances happen on the left side, which could be the result of the right iliac artery compresses the left common iliac vein (May–Thurner syndrome).

Pregnancy-related DVT accounts for more than half of cases, with iliofemoral veins being particularly prone to embolise and challenging to identify. A meta-analysis involving almost 9 million pregnancies revealed that the incidence of lupus was almost 1 case per 900 newborns. In one third of the women, lupus becomes better during pregnancy; in another third, it stays the same; and in a third, it gets worse. Maternal mortality in a group of 13,555 SLE pregnant mothers was 325 per 100,000. With the exception of a pilot research that monitored galectin-3-binding protein levels, there are presently no recognized predictors of VTE in SLE (G3BP). G3BP is thought to activate type I interferon, which in turn induces a prothrombotic condition.

CONCLUSION:

Patients with SLE have a markedly elevated risk of thrombosis. In the

management of lupus, a risk-stratified approach to thrombosis risk factors is crucial.Every SLE patient needs to have an APLA screening. Unless contraindicated, hydroxychloroquine should be started in all patients due to its shown ability to minimize disease-related morbidity and mortality, as well as its potential to lower the risk of thrombosis. Anticoagulation is used to treat thrombotic events; the goal INR for venous events is 2-3, and for arterial or recurrent venous events is 3-4.

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