



## FEATURES OF ANTIPHOSPHOLIPID SYNDROME

Suleymanova Gulrux Suleymanovna

Bukhara State Medical Institute

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**Annotation.** Antiphospholipid syndrome (APS) is rightly called a chameleon syndrome. With the involvement of various molecular mechanisms and interactions, a spectrum of clinical manifestations develops. Antiphospholipid antibody (AFA) SP was studied in 25 patients with coronavirus infection and 22 pregnant women with antiphospholipid syndrome (AFS) in patients with antiphospholipid syndrome (AFS) during the coronavirus pandemic.

**Keywords:** coronavirus infection, antiphospholipid syndrome, pregnancy, maternity hospitals, Treatment

**Relevance:** the study of thrombophilic complications in pregnancy during the pandemic has been one of the main and promising tasks of modern obstetrics [2, 3, 5].

Complex impact of interrelated destructive factors (coronavirus infection. The presence of AFA, bad habits, nervous overstrain, sleep and wakefulness disorders) leads to changes in homeostasis during pregnancy. In this case, there is a disturbance of immune homeostasis in the woman's body, which contributes to the production of antibodies to the body's own tissues [3, 4, 6].

Hereditary and acquired disorders of blood coagulation (infections, inflammation, obesity, dehydration, etc.) are also risk factors during pregnancy. The postpartum period is associated with an even higher risk [8, 11], and during this period the number of pregnant B's increases 15-35 times compared to women who did not die [10, 12].

The daily risk of pregnancy-related VTE is highest during the first 3-6 weeks after birth. [3]. Thereafter, it decreases rapidly, although a small residual risk may persist up to 12 weeks after birth [13]. Obstetric embolism ranks among the leading causes of maternal mortality [12]. Maternal mortality occurs at an incidence of 0.1 per 100,000 births with vaginal delivery and 10 times more frequently (1-1.6 per 100,000) after cesarean section [2].

Venous thrombosis and embolism are uncontrolled causes of maternal mortality. In addition, venous thrombosis of major veins leads to placental vein thrombosis and thus impairs utero-fetal circulation and affects the fetus [6], which poses a real danger not only to the life and health of the mother but also to the fetus. To better understand the problem of thrombophilic conditions, it is necessary to clarify what is hemostasis and how it "works"? The hemostasis system is a biological system that, on the one hand, prevents and stops bleeding and, on the other hand, maintains the structural integrity of blood vessel walls and fairly rapid thrombosis of blood vessels in case of injuries [3, 4, 13].

In the process of stopping bleeding, both mechanisms are interrelated [2]. Platelet thrombus stops bleeding only in microtomes with low blood pressure. In larger veins, platelet thrombus cannot provide reliable hemostasis, and here coagulation hemostasis plays a leading role [11, 12].

In recent years, more and more attention has been paid to the study of the role of thrombophilic conditions in the development of obstetric complications and thromboembolic complications. The analysis of many studies has made it possible to identify thrombophilia as an independent group of causes of pregnancy termination [10].

According to various authors, the role of thrombophilia in the structure of causes of fetal loss syndrome is 40-75%. Among the acquired forms of thrombophilia, APS remains the most common [1-4, 6, 7]. Up to 55% of reproductive losses occur due to thrombophilia. The term "thrombophilia" was first introduced in 1965 to describe the propensity for venous thrombosis in a Norwegian family with antithrombin III deficiency (at III). Later, the term was widely introduced into clinical practice and began to unite many diseases accompanied by increased predisposition to thrombosis, including hereditary and acquired forms [10, 11, 14]. The aim of this work was to study the AFA spectrum in patients with APS during the COVID-19 pandemic.

**Materials and Methods of the Study.** Twenty-five APS patients and 22 pregnant women with coronavirus infection underwent medical examination in maternity hospitals of Bukhara and Kogan district. The control group included 15 women with physiologic course of pregnancy who applied to the city maternity center of Bukhara.

Evaluation of the hemostasis system included determination of activated partial thromboplastin time (fptv), prothrombin time (PV), prothrombin index (PTI), fibrinogen concentration, antithrombin III activity (at III) and platelet count. Along with hematologic and biochemical studies, Doppler dopplerography of utero-fetal circulation was performed to detect circulatory disorders. Doctor of Bukhara regional screening center and private clinic "fayzmed" Rakhmatova D. by dop p. lerography of pregnant women. Results and Discussion. All 25 examined patients with a history of COVID-19 and AFS infection were in the third trimester of pregnancy. In 13 patients, fever without leukopenia or lymphopenia was the main symptom. APS was diagnosed in 12 patients. As of September 25, 2020, none of the 19 women became seriously ill or died (all patients recovered and were discharged from the hospital).

Histopathologic analysis of the placenta revealed chorionic hemangiomas in 13.5% and multifocal infarcts in 14.5%; all cases showed varying amounts of fibrin deposits in or around the villi and enlarged local syncytial nodules in the interstitium under the microscope; no chorioamnionitis was found. COVID-19, 8 of 19 patients (32.6%) initially had no symptoms associated with COVID-19. Two of these women initially delivered for obstetric reasons. Both developed symptoms that mimicked obstetric complications, but this group was ultimately diagnosed with COVID-19 as part of the broader differentiation described earlier.

The study of laboratory data on pregnancy dynamics in patients with APS and COVID-19 showed that hemoglobin concentration and the number of erythrocytes were significantly higher, which compensates for the compensatory response of the maternal body. All examined patients were anemic: Hb - 84.2 Mi decreased by 1.3%, HB value decreased by 7.7%. There was a tendency towards thrombocytopenia, 33.1% increase in EHT and leukocytosis. Some abnormalities were detected in the examination of the hematopoietic system: in pregnant women with COVID-19 there was a more pronounced disturbance of the coagulation linkage of hemostasis compared to the control group. Despite the mild course of the disease, changes in the hemostasis system were significantly higher ( $P < 0.01$ ). The

elevation of fibrinogen has clinical significance. In severe cases, D-dimer levels are significantly elevated, which is a potential risk factor and the basis of poor prognosis.

In patients receiving anticoagulant therapy, the level of APTV, D-dimer, blood clotting time should be monitored. The question of discontinuation of anticoagulant therapy should be decided on the basis of coagulogram and D-dimer parameters. COVID-19 is often asymptomatic and should be considered in all pregnant women in areas of high prevalence. Compared with data from the control group, pregnant women with AFS and COVID-19 had significant changes in IPC in the umbilical artery, IR  $0.72 \pm 0.02$ ; in the uterine artery, LMS increased to  $2.26 \pm 0.02$  and IR to  $0.61 \pm 0.02$ ; and in the middle cerebral artery, IR, Pi, and LMS data decreased. Such changes in uterine artery and umbilical artery indicate increased resistance in peripheral sections, middle cerebral artery, there was a decrease in all indices. In pregnant women, there were significant changes in IPC in umbilical artery - IR  $0.72 \pm 0.02$ ; in uterine artery - increase in LMS to  $2.26 \pm 0.02$  and IR to  $0.61 \pm 0.02$ ; in middle cerebral artery - decrease in IR, Pi and LMS information. Such changes in uterine artery and umbilical artery indicate increased resistance in peripheral sections, middle cerebral artery, there was a decrease in all indices.

### Conclusions:

1. Hypercoagulability as well as utero-placenta-fetal blood flow abnormalities have been reported in pregnant women with new coronavirus infection COVID-19 and AFS.
2. Pregnant women with covid-19 and women with APS should be categorized as at risk for renal failure (be) and should have timely prophylaxis for be.
3. Correction of hematopoietic system disorders during the period of placenta formation in pregnant women with thrombophilia and COVID-19 until the end of trophoblast invasion is necessary not only to prolong pregnancy, but also to prevent remote complications of pregnancy (severe forms of pre-eclampsia, placental insufficiency, fetal growth restriction syndrome).

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