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3 knoll drive. London. N14 5LU United Kingdom

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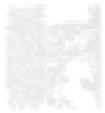
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ANTIPHOSPHOLIPID SYNDROME, LOSS OF EARLY PREGNANCY, AND ULTRASOUND OF THE YOLK SAC

Akhmadjonova G.M.

Andijan State Medical Institute,
Uzbekistan

Abstract: The article presents data on the study of the size of the yolk sac of pregnant women with antiphospholipid syndrome up to 8 weeks of pregnancy. We studied ultrasound anatomy, the nature of development in the early gestational period. In case of violation of pregnancy, the yolk sac in the first trimester is characterized either by other sizes, or is not determined. The diameter of this extra-embryonic organ is one of the criteria that allows you to assess the condition of the developing fetus.

Key words: yolk sac, implantation, morphometry, fetal loss.

Relevance.

Basic morphostructure gestation is the so-called yolk sac, which should be detected as an extra- amniotic rounded structure. And yet the normal biometric value of the diameter of the yolk sac during the first trimester should be approximately 3-6 mm in diameter.

Often, the yolk sac is an important indicator in diagnosing threatened miscarriage. But it should be noted whether this is also the case with the pathology of pregnancy caused by the antiphospholipid syndrome.

It should be noted that in case of spontaneous abortion, according to the literature, there have been cases of the absence of a yolk sac, a yolk sac larger than 6 mm or less than 3 mm, irregular in shape (mostly wrinkled with jagged walls), the presence of degenerative changes, such as numerous calcifications . while the transparency of the yolk sac and the amount of yolk sac should correspond to the amount of embryo that should be visualized by ultrasound [1,3-7,12-15].

A yolk sac diameter of more than 5.6 mm and the presence of an abnormal yolk sac visualized during primary sonography indicate an unfavorable pregnancy outcome [2,4,6,8-11].

The aim of the study was to determine the difference in the frequency of abortions between the yolk sac in antiphospholipid syndrome and a practically healthy pregnancy.

Material and methods

The study was conducted in 52 pregnant women up to 8 weeks of pregnancy. Patients were examined on the basis of the 2nd maternity complex of the city of Andijan, together with the Department of Obstetrics and Gynecology No. 2, from May 2019 to May 2020. The study included 15 practically healthy pregnant women (control group) and 37 pregnant women with identified antiphospholipid syndrome (main group). Written consent was obtained from all patients and they were informed about the aims of the study. This study was approved by the committee for the protection of motherhood and childhood of the Andijan State Medical Institute.

The following patients were excluded from the study: patients with a gestational age of more than 8 weeks, patients with diabetes, hypertension, or medical and hormonal disorders, or those who expressed a reluctance to attend follow-up visits and participate in the study.

Research result

We performed a 2D abdominal ultrasound examination of patients in a consecutive

pregnant woman at 5 to 8 weeks ' gestation as part of a routine examination or other indication for ultrasound examination. The size of the yolk sac (inside diameter), shape, echogenicity of the edge and center of the sac, amount of yolk sac, and degenerative changes such as calcification were assessed . In all cases, the 2D transvaginal ultrasound was performed by the same sonographer .

Yolk sacs that had the following characteristics were classified as normal: diameter 3 to 4.5 mm, round shape, no degenerative changes, the same number as embryos, the presence of an echoic edge and a hypoechoic center. Yolk sacs less than 2 mm in diameter or more than 5 mm in diameter were not round (i.e., oval or deformed), showed signs of degenerative changes, a hyper- or hypoechoic margin, a hyperechoic center, and an unequal number of embryos were considered abnormal.

Data were expressed as percentages and compared using student's t -tests . Statistical analysis was carried out using a statistical package (SPSS, version 16.0).

The discussion of the results

The mean age of the main group was 24.3 ± 4.2 years, and that of the control group was 23.7 ± 4.8 years, which was not statistically significant ($p=0.1$). In the main group, in 8.4% of cases, anomalies of the yolk sacs were detected, of which, oddly enough, spontaneous abortion did not occur. In the control group, a mismatch in the size of the yolk sac was found in 43.2% of pregnant women. Of these, spontaneous abortion occurred in 16.3%. There was a statistically significant difference in abortion rates between the two groups ($p = 0.0001$).

In terms of abnormal yolk sac characteristics, 29% had yolk sacs larger than 6.5 mm; the largest was 7.4 mm in a patient who had four recurrent miscarriages. Spontaneous abortion occurred in 14.7% in terms of 6 to 8 weeks of pregnancy. Of these women, the largest abnormally sized and uncomplicated yolk sac during pregnancy was 6.6 mm in diameter.

Table 1

The frequency of abortions in the main group according to the characteristics of the ultrasound anatomy of the yolk sac in history

Characteristics	Number (%)	Abortion rates (%)
Size (> 5 mm)	fifty	45.45
Distorted form	18.19	9.9
Hypoechoic headband	18.19	4.54
double yolk sac	4.54	-
No yolk sac	-	4.54
oval shape	9.08	-
Total:	100%	64.43%

Of those studied, 18.2% had a distorted yolk sac that resulted in spontaneous abortion in 9.9% who were between 6 and 8 weeks pregnant. However, 2 others continued their pregnancies at term, with normal live births.

In one case, there were two yolks, but the pregnancy proceeded without complications.

In 1 case, the yolk sac was absent, and spontaneous abortion occurred by the end of the 7th week of pregnancy.

In 19% of patients, the yolk sacs had hypoechoic edges, despite this, there were no cases of bleeding in these patients, but despite this, these women had a spontaneous abortion already at 7 weeks of pregnancy with complete detachment of the amniotic sac without retaining its fragments in the uterine cavity followed by spontaneous contraction of the uterus and recovery without post- abortion bleeding.

In the control group , abortion was not observed and all pregnancies ended in term delivery. Regarding the characteristics of the yolk sac of the control group, the diameters of the sacs ranged from 3 to 4.9 mm, all of which were round in shape.

Conclusions

Thus, it is suggested that among the characteristics of the yolk sac in antiphospholipid syndrome, large size and distorted shape are not the most important factors for early termination of pregnancy. Evaluation of the importance of other criteria requires additional studies with a large number of cases.

Used literature.

1. Aylamazyan, E.K. Women's microbiota and pregnancy outcomes / E.K. Ailamazyan, E.V. Shipitsyna, A.M. Savicheva // *Journal of Obstetrics and Women's Diseases*. - 2016. - T. 65 - No. 4. - S. 6-14.
2. Antiphospholipid syndrome in obstetric practice / M.S. Zainulina, D.R. Eremeeva, M.I. Krivonos [and others] // *Obstetrics and Gynecology of St. Petersburg*. - 2017. - No. 4. - S. 39-44.
3. Asriyants, M. A. Echographic evaluation of chorionic vascularization in pregnant women with a diagnosis of thrombophilia in the first trimester using the method of three-dimensional 116 reconstruction / M. A. Asriyants, O. V. Astafieva, V. G. Shcherbina // *Kuban Scientific Medical Bulletin*. - 2018. - T. 25. - No. 6. - S. 19-25.
4. Baymuradova, SM Miscarriage and " criteria " thrombophilia . A modern view of the problem / S. M. Baimuradova, E. V. Slukhanchuk // *Modern problems of health care and medical statistics*. - 2018. - No. 2. - P. 94-102.
5. Batrak, NV Risk factors for recurrent miscarriage / NV Batrak, AI Malysheva // *Bulletin of the Ivanovo Medical Academy*. - 2016. - T. 21. - No. 4. - S. 37-41.
6. High Risk Pregnancy / Ed. A. D. Makatsaria, F. A. Rechvenaka, V. O. Bitsadze. - M.: Medical Information Agency, 2015. - 920 p.
7. Pregnancy and homozygous and combined forms of thrombophilia in patients with thrombotic and obstetric aggravated anamnesis / A. D. Makatsaria, D. Kh. Khizroeva, V. O. Bitsadze, S. V. Akinshina // *Thrombosis, hemostasis and rheology*. - 2016. - No. S3 (67). - S. 269-270.
8. Jobava, E. M. High-risk pregnancy for the development of obstetric pathology - the hemostasis system and endothelial function. System approach to diagnostics and therapy: dis ... Dr. med. Sciences : 14.01.01 / Jobava Eliso Murmanovna . - M., 2014. - 330 p.
9. Zainulina, M.S. Approaches to anticoagulant therapy in planning and managing pregnancy in women with antiphospholipid syndrome / M.S. Zainulina, M.I. Krivonos // *Thrombosis, hemostasis and rheology*. - 2016. - No. S3 (67). - S. 166-167.
10. Kapanadze, D. L. The role of genetic thrombophilia in the development of thromboembolic and obstetric complications / D. L. Kapanadze, T. A. Diakonidze, V. B. Zubenko // *Obstetrics, gynecology and reproduction*. - 2017. - T. 11. - No. 4. - S. 68-71.
11. Makarenko, E.V. Antiphospholipid syndrome / E.V. Makarenko // *Problems of health and ecology*. - 2017. - No. 4 (54). - P. 4-11.
12. Perinatal losses in the territory of the Moscow region / O. F. Serova, L. V. Sedaya, N. V. Shutikova [et al.] // *Treatment and prevention*. - 2017. - No. 2 (22). - S. 26-30.