

УДК 618.3-06

DOI: 10.18413/2075-4728-2018-41-2-245-253

**MODERN FEATURES OF THE ANAMNESIS OF PATIENTS
FROM PREECLAMPSIA VARYING SEVERITY****СОВРЕМЕННЫЕ ОСОБЕННОСТИ АНАМНЕЗА ПАЦИЕНТОК
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Abstract

Objective of this research was studying of modern risk factors on development of a preeclampsia of varying severity on the basis of the anamnesis of patients. Results of the conducted research showed that the preeclampsia most often develops at first pregnant woman "fertile" age, brainwork, with the burdened heredity and the somatic anamnesis, inflammatory diseases of a female genital and violation of a menstrual cycle. Among the burdening factors is heredity and the somatic anamnesis it is necessary to carry diseases of vascular and kidney genesis and an endokrinopatiya (pyelonephritis, a hypertensive illness, violation of a fatty exchange). Risk factors on development of a preeclampsia of "easy" and "average" severity are: first pregnant woman age from 19 till 30 years (on average 24.5 ± 5.5 years), with the burdened heredity (cardiovascular and renal pathology), inflammatory diseases of a female genital, violation of a menstrual cycle and existence of somatic pathology, mainly violation of a fatty exchange and pyelonephritis. Risk factors on development of a preeclampsia of "heavy" severity are: "young" and old "age" one birth with heavy somatic pathology, mainly with chronic pyelonephritis and a hypertensive illness. The heavier somatic pathology proceeds, the clinical symptoms of a preeclampsia are expressed stronger. The critical period on development of a preeclampsia of varying severity is the "fertile" age of patients from 19 to 30 years. And the risk of development of "heavy" forms of this pathology increases at "young" and old "age" one birth twice. The knowledge of anamnesis data with a preeclampsia will allow to diagnose this pathology for patients at "early" stages that will reduce the number of complications during pregnancy, in labor and in the postnatal period and considerably will improve the "remote" forecast.

Аннотация

Целью данного исследования явилось изучение современных факторов риска по развитию преэклампсии различной степени тяжести на основании анамнеза пациенток. Результаты проведенного исследования показали, что преэклампсия чаще всего развивается у первобеременных «фертильного» возраста, умственного труда, с отягощенной наследственностью и соматическим анамнезом, воспалительными заболеваниями женской половой сферы и нарушением менструального цикла. К отягощающим факторам наследственности и соматического анамнеза следует отнести заболевания сосудисто-почечного генеза и эндокринопатии (пиелонефрит, гипертоническая болезнь, нарушение жирового обмена).

В группе риска по развитию преэклампсии «легкой» и «средней» степени тяжести находятся первобеременные в возрасте от 19 до 30 лет (в среднем, 24.5 ± 5.5 лет) с отягощенной наследственностью (сердечно-сосудистая и почечная патологии), воспалительными заболеваниями женской половой сферы, нарушением менструального цикла и наличием соматической патологии

(преимущественно с нарушением жирового обмена и пиелонефритом). В группе риска по развитию преэклампсии тяжелой степени находятся «юные» и «возрастные» первородящие с тяжелой экстрагенитальной патологией, преимущественно с хроническим пиелонефритом и гипертонической болезнью. Чем тяжелее протекает экстрагенитальная патология, тем сильнее выражены клинические симптомы преэклампсии. Критическим периодом, когда значительно повышается риск развития преэклампсии различной степени тяжести, является «фертильный» возраст пациенток (от 19 до 30 лет), причем риск развития «тяжелых» форм данной патологии в 2 раза повышается у «юных» и «возрастных» первородящих. Знание анамнестических данных у пациенток с преэклампсией позволит диагностировать данную патологию на «ранних» стадиях, что уменьшит количество осложнений во время беременности, в родах и в послеродовом периоде и значительно улучшит «отдаленный» прогноз.

Keywords: anamnesis, preeclampsia, heredity, somatic pathology, gynecologic diseases.

Ключевые слова: анамнез, преэклампсия, наследственность, соматическая патология, гинекологические заболевания.

Introduction

Preeclampsia represents multisystem to a diseases which still remains actual for practical obstetrics. Over the last 10 years the frequency of this pathology in the Russian Federation and in the world tends to increase and is ranging from 12 to 20%. Besides, growth of frequency of the "combined" forms against heavy somatic pathology [Aylamazyan, 2008; Vikhlyayeva, 2009; Savelyeva, 2009].

Preeclampsia is the pregnancy complication connected with the generalized angiospasm leading to deep disorders of function of vitals and systems. The triad of symptoms belongs to the most typical clinical manifestations of a preeclampsia: increase on the top blood pressure, proteinuria, hypostases. Sometimes there is a combination of two symptoms: hypertension and proteinuria, hypertension and hypostases, hypostases and proteinuria [Sidorova, 2008; Dry, 2009; Mostello et al., 2010].

The majority of complications at a preeclampsia is connected with presence at pregnant various diseases of the body, in particular a hypertensive illness and chronic pyelonephritis.

The doctor the obstetrician-gynecologist at arrival of the pregnant woman with a preeclampsia in a hospital has to know accurately features of a course of pathology of the body before pregnancy. All this will allow to predict the further course of pregnancy, childbirth, the postnatal period and to reduce risk of "possible" complications, as for mother and a fruit.

According to modern representations, the anamnesis represents a data set which were received from the patient and his relatives when carrying out medical examination. Collecting the anamnesis is considered the integral stage of survey and consultation of the pregnant woman.

The scheme of collecting the anamnesis helps the doctor to conduct correctly survey, to pick up suitable treatment and measures of prevention of an illness. Sometimes the anamnesis the chance of exact statement of the diagnosis without additional inspections[Savelyeva, 2009; Vikhlyayeva, 2009; Mostello et al., 2010].

The anamnesis allows to gain an impression about risk factors on development of a preeclampsia which is one of the most actual problems of modern obstetrics is followed by the large number of complications resulting in high maternal and perinatal incidence and mortality [Brain, 2009; Odnokozova, 2009; Pare et al., 2014].

Purpose

Research objective – on the basis of anamnesis data to determine modern risk factors by development of a preeclampsia of varying severity.

Research problems:

1. To reveal "critical" age on development of a preeclampsia.

2. To reveal the most often meeting forms of somatic pathology participating in development of a preeclampsia at the present stage.
3. To determine risk factors by development of a preeclampsia of "easy" severity.
4. To determine risk factors by development of a preeclampsia of "average" severity.
5. To determine risk factors by development of a preeclampsia of "heavy" severity.

Materials and methods of research

Collecting the anamnesis at 300 pregnant women from preeclampsia varying severity at receipt is carried out to an obstetric hospital (the main group of research). 200 patients made control group.

The number of the examined patients with a preeclampsia is presented in table 1.

Table 1
Таблица 1

The number of the examined patients with a preeclampsia
Количество обследованных пациенток с преэклампсией

Severity of a preeclampsia	"Pure" (n=80)	"Combined" (n=220)
"Easy" (to 7 points) (n=177)	57 (71.25%)	120 (54.5%)
"Average" (8-11 points) (n=60)	23 (28.75%)	37 (16.8%)
"Heavy" (12 points and more) (n=63)	-	63 (28.7%)

Selection criteria in the main group of research were: patients from preeclampsia varying severity ("easy" degree – to 7 points, "average" – 8-11 points, "heavy" – 12 points and more), reproductive age.

Selection criteria in control group were: patients without preeclampsia, reproductive age.

Capture of control group was necessary to compare data of the anamnesis at patients to a preeclampsia and to uncomplicated pregnancy.

Special statistical cards which reflect features of the anamnesis of surveyed are developed for data acquisition in research.

When collecting the anamnesis the clinical analysis of the following indicators is carried out: age of patients, social factors and professional harm, heredity, nature of menstrual function, gynecologic diseases, the accompanying pathology of the body.

In the analysis of age of patients the age till 18 years ("young"), from 19 to 30 years ("fertile age") was considered and 30 years are more senior (old "age").

In the analysis of social factors were considered: intellectual and physical work, students, housewives.

Professional harm were distributed as follows: emotions loading ("chronic" stress) and hard physical work.

When collecting hereditary factors and data on existence of somatic pathology the big emphasis was placed on diseases of vascular and kidney genesis.

Among diseases of vascular and kidney genesis presence at patients of a hypertensive illness and chronic pyelonephritis – violation of a fatty exchange was important for research.

The obtained digital data of research were processed by parametrical methods of an assessment of reliability: definition of an error of representativeness (m), confidential borders of average (M) and relative sizes (R), assessment of reliability of a difference of results of research (t), definition of a significance value of research (p) on the special table. For the critical level when checking statistical hypotheses was (p) equal or less than 0.05.

Results and their discussion

According to modern representations, the great influence on development of a preeclampsia is exerted by age of patients.

It should be noted what "young" faces have less than chronic somatic pathology or it can be absent at all whereas at old "age" – a large number of pathology with a chronic current which causes serious complications during pregnancy childbirth and in the postnatal period, increases quantity of an operational birth.

The fertile age is most dangerous on development of a preeclampsia as the main loading on a child-bearing falls on this age.

From the anamnesis of surveyed it is established that the age structure depending on severity of a preeclampsia was rather diverse (tab. 2).

Table 2
Таблица 2

Age of patients with preeclampsia
Возраст пациенток с преэклампсией

Age	Preeclampsia of "easy" degree of n (%)	Preeclampsia of "average" degree of n (%)	Preeclampsia of "heavy" degree of n (%)	Control group n (%)	(p)
16-18 years (n=30)	15(8.5%)	5(8.3%)	10(16.7%)	-	-
19-30 years (n=402)	139(78.6%)	45(75%)	33(55%)	185(92.5%)	0.03
over 30 years (n=68)	23(12.9%)	10(16.7%)	20(31.8%)	15(7.5%)	0.01
Total: (n=500)	177	60	63	200	-

The data presented in tab. 2 demonstrate that at a preeclampsia of "easy" and "average" severity patients of fertile age from 19 to 30 years prevailed (on average 24.5 ± 5.5 years). At increase in severity of this pathology the quantity of "young" and old "age" one pregnant increased.

At a "heavy" preeclampsia at everyone the heel surveyed age made till 18 years ("young"), at every third – more than 30 years (old "age"). Increase in quantity of severe forms of a preeclampsia, in my opinion, at "young" patients it is connected with insufficient adaptation of an organism to the damaging agents, at old "age" – a large number of the body pathology.

At patients of control group statistically authentically ($p=0.03$; 0.01) it is established that the age at the vast majority surveyed also made from 19 to 30 years (on average 22.5 ± 3.5 years).

"Young" one pregnant in this group it was not noted, and old "age" were observed in insignificant quantity (7.5%).

The great value on health of women is rendered a working condition and life. The women subject to a "chronic" stress, have vascular and endocrine diseases more. Modern "active" life, especially in big cities and megalopolises, is the trigger in development of an illness.

When carrying out the analysis of data at patients of the studied group social factors and professional harm depending on severity of a preeclampsia were distributed as follows (tab. 3-4).

Table 3
Таблица 3

Social factors at patients of the studied group
Социальные факторы у пациенток исследуемой группы

Social factors	Preeclampsia of "easy" degree of n (%)	Preeklampsiya of "average" degree of n (%)	Preeclampsia of "heavy" degree of n (%)	Control group n (%)	(P)
Brain work (n=117)	48(27.1%)	20(33.3%)	19(30.2%)	30(15%)	0.02
Physical work (n=75)	30(17%)	10(16.7%)	15(23.8%)	20(10%)	0.02
House wives (n=204)	55(31.1%)	18(30%)	11(17.4%)	120(60%)	0.03
Students (n=104)	44(24.8%)	12(20%)	18(28.6%)	30(15%)	0.02
Total: (n=500)	177	60	63	200	-

Table 4
Таблица 4

Professional harm at patients of the studied group
Профессиональные вредности у пациенток исследуемой группы

Professionalharm	Preeclampsia of "easy" degree of n (%)	Preeclampsia of "average" de- gree of n (%)	Preeclampsia of "heavy" degree of n (%)	Control group n (%)	(P)
Psychoemotional loading ("chronic" stress) (n=221)	92(52%)	32(53.3%)	37(58.7%)	60(30%)	0.03
Physicalactivity (n=75)	30(17%)	10(16.7%)	15(23.8%)	20(10%)	0.02
No harm (n=204)	55(31%)	18(30%)	11(17.5%)	120(60%)	0.03
Total: (n=500)	177	60	63	200	-

The submitted these tab. 3 and 4 demonstrate that among surveyed from preeclampsia "easy" and "average" severity patients of brainwork and housewives prevailed.

At "heavy" forms of this pathology also students were in most cases marked out surveyed brainwork. It proves the fact that this pathology develops at the women of brainwork who are in a condition of a "chronic" stress more often.

In group of patients with uncomplicated pregnancy statistically authentically (p=0.03; 0.02) housewives, without professional harm prevailed, brainwork was noted at every third patient, physical – at every tenth.

The role of chronic gynecologic pathology, especially inflammatory character, on development of a preeclampsia is still insufficiently clear. Obviously, it is connected with decrease in immunity, the damaging action of the infectious agent on endothelia of blood vessels, hormonal violations is a question for scientific discussions.

As a result of an assessment of menstrual function in group of patients with a preeclampsia it is established that at 230 of 300 patients it was observed dismenoreya, from them at 144(62.6%) – algodismenoreya, at 56(24.4%) – giperpolimenoreya, at 30 (13%) – other dismenore.

At an assessment of menstrual function at patients with uncomplicated pregnancy statistically authentically (p=0.05) it is established that in most cases it was without features. At every fifth surveyed this group it was revealed dismenoreya with prevalence of an algodismenorea.

Every second patient of the main group of research had clinical displays of chronic gynecologic diseases.

So, at 85 of 155 surveyed chronic inflammatory diseases of a female genital (chronic adneksit, a colpitis), at 35 – a uterus neck erosion, at 15 – primary infertility, at 20 – other gynecologic pathology prevailed.

It should be noted that diseases, such as dysfunction and polikistoz ovaries, myoma of a body of a uterus and endometriosis were revealed at everyone by a heel in group of old "age" patients.

At an assessment of data of the anamnesis of patients of control group of research statistically authentically ($p=0.03$) it is established that every third surveyed had clinical displays of gynecologic diseases. And, at 40 of 67 patients chronic inflammatory diseases of a female genital (chronic adneksit), at 21 – a uterus neck erosion, at 6 – primary infertility prevailed.

Thus, the structure of gynecologic pathology at patients with uncomplicated pregnancy did not differ from that, as at a preeclampsia. However, the number of gynecologic patients in control group of research were twice less, than basically.

Exert impact, the postponed earlier infectious diseases (especially virus etiology) and heredity on health of women of the reproductive period.

At the vast majority surveyed with "pure" forms of a preeclampsia in the anamnesis children's infections (measles, rubella, chicken pox) and catarrhal diseases (ORZ, flu) prevailed. At 35(43.7%) patients of this group along with infectious diseases heredity was burdened: from them at 17 – a hypertensive illness, at 10 – pyelonephritis, at 3 – diabetes, at 5 – coronary heart disease.

Practically at all patients from the "combined" preeclampsia "heavy" severity heredity with prevalence of diseases of vascular and kidney genesis was burdened (a hypertensive illness, pyelonephritis, glomerulonefritis).

In the analysis of hereditary factors at patients of control group of research statistically authentically ($p=0.05$) it is established that at every fifth patient heredity was burdened, from them at 10 – the immediate family had a hypertensive illness, at 8 – pyelonephritis, at 7 – diabetes. And, the number of patients with the burdened heredity in control group of research was 3-4 times less, than at a preeclampsia.

In development of a preeclampsia the huge role is played by somatic pathology. Endocrine, vascular and renal diseases cause changes in the woman's organism which are the trigger in development of a preeclampsia. At the present stage it should be noted growth of number of diseases with a chronic current is one of problems of modern obstetrics.

The obtained data of the conducted research convincingly showed growth of number of diseases at patients from preeclampsia (tab. 5).

Table 5
Таблица 5

Somatic pathology at patients of the studied group
Соматическая патология у пациенток исследуемой группы

Diseases	"Combined" preeclampsia of "easy" degree of n (%)	"Combined" preeclampsia of "average" degree of n (%)	"Combined" preeclampsia of "heavy" degree of n (%)	Control group n (%)	(p)
Violation of a fatty exchange (n=118)	48(40%)	16(43.2%)	14(22.2%)	40(20%)	0.02
Pyelonephritis (n=85)	42(35%)	13(35.2%)	30(47.6%)	-	-
Hypertensive disease (n=57)	30(25%)	8(21.6%)	19(30.2%)	-	-
no diseases (n=160)	-	-	-	160(80%)	-
Total: (n=420)	120	37	63	200	

The received these tab. 5 showed that at patients from preeclampsia "easy" and "average" severity in the anamnesis violation of a fatty exchange and pyelonephritis whereas at "heavy" degree – pyelonephritis and a hypertensive illness prevailed.

Thus, development of a preeclampsia of "easy" and "average" severity was in most cases observed against violation of a fatty exchange whereas at "heavy" severity of this pathology diseases of vascular and kidney genesis prevailed.

It should be noted a current trend of growth of patients with violation of a fatty exchange that can be shown as an independent disease, and be manifestation of a metabolic syndrome.

Data of the conducted research showed that practically every third patient with a preeclampsia and every fifth – with uncomplicated pregnancy had clinical manifestations of violation of a fatty exchange of varying severity that, undoubtedly, after the delivery can lead to progressing of a disease and development of a metabolic syndrome.

Thus, various somatic disease and diseases of vascular and kidney genesis led at patients of the studied group to hemostasis pathology, damage an endothelia of vessels, to a generalized vasospasm and violation of microcirculation that was the trigger in development of a preeclampsia and to various postnatal complications.

It should be noted growth of number of patients at a preeclampsia with the burdened heredity, chronic inflammatory diseases of a female genital and violations of a menstrual cycle.

Therefore, these factors play an important role in development of a preeclampsia at the present stage.

Conclusions

1. Preeclampsia most often develops at first pregnant woman fertile age, brainwork, with the burdened heredity and the somatic anamnesis, inflammatory diseases of a female genital and violation of a menstrual cycle.

2. Among the burdening factors is heredity and the somatic anamnesis it is necessary to carry diseases of vascular and kidney genesis and an various somatic disease (pyelonephritis, a hypertensive illness, violation of a fatty exchange).

3. Chronic adneksit also dysmenorrhea, mainly algodysmenorrhea are risk factors on development of a preeclampsia.

4. Risk factors on development of a preeclampsia of "easy" and "average" severity are: first pregnant age from 19 till 30 years (on average 24.5 ± 5.5 years), with the burdened heredity (cardiovascular and renal pathology), inflammatory diseases of a female genital, violation of a menstrual cycle and existence of somatic pathology, mainly violation of a fatty exchange and pyelonephritis.

5. Risk factors on development of a preeclampsia of "heavy" severity are: "young" and old "age" first pregnant woman with heavy pathology of the body, mainly with chronic pyelonephritis and a hypertensive illness. The heavier pathology of the body proceeds, the clinical symptoms of a preeclampsia are expressed stronger.

6. The critical period on development of a preeclampsia of varying severity is the "fertile" age of patients from 19 to 30 years. And the risk of development of "heavy" forms of this pathology increases at "young" and old "age" first pregnant twice.

7. The knowledge of anamnesis data with a preeclampsia will allow to diagnose this pathology for patients at "early" stages that will reduce the number of complications during pregnancy, in labor and in the postnatal period and considerably will improve the "remote" forecast.

References

Список литературы

1. Ajlamazyan Eh.K. 2009. Akusherstvo. Natsional'noe rukovodstvo [Obstetrics. National grant]. M., GEHOTAR-Media, 1200. (in Russian)
Айламазян Э.К. 2009. Акушерство. Национальное руководство. М., ГЭОТАР-Медиа, 1200.
2. Ajlamazyan Eh.K., Mozgovaya E.V. 2008. Gestoz: teoriya i praktika [Gestoz: theory and practice]. M., MED press-inform, 264. (in Russian)
Айламазян Э.К., Мозговая Е.В. 2008. Гестоз: теория и практика. М., МЕД пресс-информ, 264.
3. Vikhlyayeva E.M. 2009. Doklinicheskie proyavleniya sistemnykh narushenij, klinicheskie iskhody i otdalennye posledstviya preehklampsii [Preclinical manifestations of system violations, clinical outcomes and remote consequences of a preeclampsia] Akusherstvo i ginekologiya, 1(3): 6. (in Russian)
Вихляева Е.М. 2009. Доклинические проявления системных нарушений, клинические исходы и отдаленные последствия преэклампсии. Акушерство и гинекология, 1(3) :6.
4. Doklad Rabochej grupy Vserossijskogo nauchnogo obshhestva kardiologov (VNOK) po vysokomu arterial'nomu davleniyu pri beremennosti [The report of the Working group of the All-Russian Scientific Organization of Cardiologists (ARSOC) on high arterial pressure at pregnancy]. 2007. Moskva. (in Russian)
Доклад Рабочей группы Всероссийского научного общества кардиологов (ВНОК) по высокому артериальному давлению при беременности. 2007. Москва.
5. Makarov O.V., Nikolaev N.H., Volkova E.V. 2006. Arterial'naya gipertenziya u beremennykh. Tol'ko li gestoz? [Arterial hypertension at pregnant women. Whether only gestoz?]. M.: GEHOTAR-Media, 173. (in Russian)
Макаров О.В., Николаев Н.Н., Волкова Е.В. 2006. Артериальная гипертензия у беременных. Только ли гестоз? М., ГЭОТАР-Медиа, 173.
6. Odnokozova O.S., Vasilenko L.V., Zryachkin N.I. 2009. Tечение beremennosti, rodov i sostoyanie zdorov'ya novorozhdyonnykh posle preventivnogo lecheniya gestozov u beremennykh grupy riska [The course of pregnancy, childbirth and state of health of newborns after preventive treatment of gestoz at pregnant women of risk group]. Saratovskij nauchno-meditsinskij zhurnal, 5 (4): 533–536. (in Russian)
Однокозова О.С., Василенко Л.В., Зрячкин Н.И. 2009. Течение беременности, родов и состояние здоровья новорождённых после превентивного лечения гестозов у беременных группы риска. Саратовский научно-медицинский журнал, 5 (4) :533–536.
7. Savel'eva G.M. 2008. Akusherstvo [Obstetrics]. M., Izdatel'skaya grupa «GEHOTAR-Media»: 51. (in Russian)
Савельева Г.М. 2008. Акушерство. М., Издательская группа «ГЭОТАР-Медиа»: 651.
8. Savel'eva G.M., Serov V.N., Sukhikh G.T. 2009. Klinicheskie rekomendatsii. Akusherstvo i ginekologiya [Clinical recommendations. Obstetrics and gynecology]. M., GEHOTAR-Media: 868. (in Russian)
Савельева Г.М., Серов В.Н., Сухих Г.Т. 2009. Клинические рекомендации. Акушерство и гинекология. М., ГЭОТАР-Медиа: 868.
9. Sidorova I.S., Borovkova E.I., Martynova I.V., Solonicyn A.N., Rykunova O.V., Shemanaeva T.V. 2007. Rol' okislitel'nogo stressa v patogeneze gestoza [Role of an oxidizing stress in pathogenesis of a gestoz]. Akusherstvo i ginekologiya, 3: 3–5. (in Russian)
Сидорова И.С., Боровкова Е.И., Мартынова И.В., Солоницын А.Н., Рыкунова О.В., Шеманаева Т.В. 2007. Роль окислительного стресса в патогенезе гестоза. Акушерство и гинекология, 3: 3–5.
10. Sidorova I.S., Bilyavskaya O.S., Nikitina N.A., Shemanaeva T.V. 2008. Otsenka stepeni tyazhesti gestoza (po dannym literatury) [Assessment of severity of a gestoz (according to literature)]. Akusherstvo i ginekologiya, 3: 40–43. (in Russian)
Сидорова И.С., Билявская О.С., Никитина Н.А., Шеманаева Т.В. 2008. Оценка степени тяжести гестоза (по данным литературы). Акушерство и гинекология, 3: 40–42.
11. Sidorova I.S., Gurina O.I., Milovanov A.P., Nikitina N.A., Bardagova A.V., Shemanaeva T.V. 2008. Patogenez gestoza kak proyavlenie immunokompleksnoj patologii ehndoteliya (ostrjy immunnyj

ehndoteliоз) [Pathogenesis of a gestoz as display of immunocomplex pathology endoteliya (sharp immune endoteliоз)]. *Akusherstvo i ginekologiya*, 6: 13–17. (in Russian)

Сидорова И.С., Гурина О.И., Милованов А.П., Никитина Н.А., Бардагова А.В., Шеманаева Т.В. 2008. Патогенез гестоза как проявление иммунокомплексной патологии эндотелия (острый иммунный эндотелиоз). *Акушерство и гинекология*, 6: 13–17.

12. Sidorova I.S., Zajrat'yanc O.V., Nikitina N.A. 2008. Gestoz i materinskaya smertnost' [Gestoz and maternal mortality]. *Akusherstvo i ginekologiya*, 2: 13–15. (in Russian)

Сидорова И.С., Зайратьянц О.В., Никитина Н.А. 2008. Гестоз и материнская смертность. *Акушерство и гинекология*, 2: 13–15.

13. Shemanaeva T.V., Sidorova I.S., Gurkina O.I., Borovkova E.I. 2008. Prognosticheskaya znachimost' molekul adgezii kletok sosudov v otsenke stepeni tyazhesti gestoza [The predictive importance of molecules of adhesion of cages of vessels in an assessment of severity of a gestoz]. *Akusherstvo i ginekologiya*, 2: 16–18. (in Russian)

Шеманаева Т.В., Сидорова И.С., Гуркина О.И., Боровкова Е.И. 2008. Прогностическая значимость молекул адгезии клеток сосудов в оценке степени тяжести гестоза. *Акушерство и гинекология*, 2: 16–18.

14. Calix R., Xavier R., Zenon Jr. 2015. Protein-Creatinine Ratio for the Diagnosis of Preeclampsia: Same Cutoff Value for Everyone? *Obstetrics & Gynecology*, 25: 47.

15. Mostello D., Jen C., Jen A. 2010. Recurrent Preeclampsia: The Effect of Weight Change Between Pregnancies. *Obstetrics & Gynecology*, 116 (3): 667–672.

16. Prado A., Piovesan D., Deise M. 2010. Association of Anticardiolipin Antibodies With Preeclampsia: A Systematic Review and Meta-Analysis. *Obstetrics & Gynecology*, 116 (6): 1433–1443.

17. Paré E., Parry S., Thomas F. Clinical Risk Factors for Preeclampsia in the 21st Century. 2014. *Obstetrics & Gynecology*, 124 (4): 763–770.

18. Rijn B., Nijdam M., Bruinse H. 2013. Cardiovascular Disease Risk Factors in Women With a History of Early-Onset Preeclampsia. *Obstetrics & Gynecology*, 121 (5): 1040–1048.

19. Rodrique C., Weyer Z., Katherine L. 2014. Comparison of Timed Urine Collection to Protein-Creatinine Ratio for the Diagnosis of Preeclampsia. *Obstetrics & Gynecology*, 123: 76–77.

20. So J., Chappelle J. 2014. Laboratory Evaluation in the Workup of Preeclampsia. *Obstetrics & Gynecology*, 123: 80–81.