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*Ismayilova N. F.***THE PROBLEM OF CHRONIC VENOUS INSUFFICIENCY IN PREGNANT WOMEN**

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A survey was conducted of 113 gynecologists working in maternity hospitals, gynecological departments of hospitals, gynecological and maternity departments of private clinics and antenatal clinics in Baku. The questionnaire consisted of 32 questions reflecting the main aspects of CVI in pregnant women, and options for answers to each question. The average age of doctors was 46.2±1.09 years, the average length of service was 19.7±1.09 years. Most gynecologists' responses indicated the use of compression stockings. Doppler ultrasonography in cases of convulsions and edema in pregnant women is performed by 2/3 of doctors. Prescription of compression stockings by pregnant women occurs more often for therapeutic rather than prophylactic purposes. The importance of RAL-GZ-387 certification for the use of compression stockings is more convincing in the assessments of doctors with scientific degrees than practitioners.

The level of attention to the diagnosis of CVI among gynecologists in Baku is satisfactory. It is planned to systematically conduct sanitary and agitation work among pregnant women on the main measures of prevention of CVI and awareness-raising activities in the direction of expanding clinical examinations of pregnant women to increase the effectiveness of compression therapy.

Key words: chronic venous insufficiency, pregnancy, compression hosiery, questionnaire.

The connection of the publication with planned research works. This work is a fragment of an ongoing dissertation for the degree of Doctor of Philosophy in medicine «Optimization of prevention and treatment of chronic venous insufficiency in pregnant women, evaluation of the results of open and thermal operations for varicose veins».

Introduction. Chronic venous insufficiency (CVI) is one of the most common pathologies in the world that occurs as a result of a violation of venous blood flow, and is characterized by symptoms such as pain, swelling of the lower extremities and varicose veins. Fetal exposure to the pelvic veins of the mother during pregnancy and hormonal processes occurring in the body during this period increase the risk of developing CVI or lead to the progression of an existing disease [1, 2, 3, 4].

Gynecologists are the first to face the problem of CVI during pregnancy. The danger of this pathology for both mother and child should be adequately assessed by gynecologists at different stages of pregnancy, as well as in the early postpartum period, depending on the severity of CVI. The organization of joint coordinated work of gynecologists, general surgeons, vascular surgeons and radiologists is one of the important conditions for solving the problem of CVI in pregnant women.

The purpose of the study to identify similarities and differences in approaches to the diagnosis and treatment of CVI in pregnant women among gynecologists with different professional training and work experience based on a survey conducted in Baku.

Object and methods of research. A survey was conducted of gynecologists working in maternity hospitals, gynecological departments of hospitals, gynecological and maternity departments of private clinics and women's consultations in Baku.

The questionnaire was developed by the staff of the Department of "General Surgery with courses of Cardiovascular Surgery and Neurosurgery" of the Azerbaijan

State Institute of Advanced Medical Education named after A.Aliyev and consisted of 32 questions reflecting the main aspects of the problem of CVI in pregnant women, and answers to each question. 113 doctors who answered all questions met the inclusion criteria and compiled research material. The questionnaires of 18 doctors who did not fully answer all the questions or gave contradictory answers were excluded from the study. The average age of doctors was 46.2±1.09 years, the average work experience was 19.7±1.09 years. The remaining key characteristics of the survey participants are shown in **table 1**.

Methods of statistical processing. The data obtained as a result of the study were grouped by qualitative characteristics and analyzed using methods of variation statistics. To characterize the frequency of occurrence of qualitative signs, their absolute number and percentage ratio in the groups were determined. The statistical significance of the difference between the groups divided by different qualitative characteristics was determined by the nonparametric Pearson criterion – χ^2 . The differences between the groups were considered statistically significant at $p < 0.05$. Statistical processing of the obtained results was carried out on a personal computer using Microsoft Office Excel, a spreadsheet editor, and the MedCalc 12.7 application software package.

The results of the study and their discussion. The questions were divided into several groups. The first 6 questions were devoted to diagnostic measures to identify varicose veins of the lower extremities as the main sign of CVI, as well as varicose veins of the external genitals, which is a clinical manifestation of stagnation in the veins of the pelvis during the initial examination of pregnant women and in subsequent consultations. When asked whether pregnant women were interviewed about the presence of any complaints characteristic of venous insufficiency of the lower extremities, the overwhelming majority of doctors (79.6%) replied

Table 1 – Distribution of doctors by length of service, qualifications and place of work

Work experience				At the place of work	
1-5 year, n	9	DMS and DPM	13	State Hospital	50
%	8,0%		11,5%		44,2%
6-10 year, n	18	Uzman Doctors	4	Private clinic	23
%	15,9%		3,5%		20,4%
11-20 year, n	38	Residents	4	Women's consultation	40
%	33,6%		3,5%		35,4%
21-30 year, n	29	Dissertants	2		
%	25,7%		1,8%		
31 or more, n	19	Practical doctors	90		
%	16,8%		79,6%		
Total	n=113; 100%		n=113; 100%		n=113; 100%

Note: DMS. – Doctor of Medical Sciences, DPM. – Doctor of Philosophy in Medicine

that it is necessary to check this information with every pregnant woman. In 18.6% of cases, doctors stated that they would conduct a targeted examination only if complaints indicating CVI were detected. Only 2 gynecologists answered that there is no need to conduct this survey in all pregnant women.

It turned out that 53.1% of doctors performed a visual examination of the lower extremities of pregnant women for the presence of varicose veins. 21.9% replied that they carried out an examination only if there were relevant complaints, and 15% of doctors entrusted this examination to a specialist (phlebologist). As for the instrumental examination for the diagnosis of CVI, 84.1% of doctors referred pregnant women only in the presence of visual symptoms or complaints. 9 doctors showed the importance of Doppler ultrasound for every pregnant woman, and the same number of other doctors gave a negative answer. A smaller number of doctors (n = 5; 4.4%) referred patients to Doppler examination of pelvic veins. 77% said that there is a need for this study only if there are complaints, and 18.6% said that this study is not necessary.

36.3% of doctors examined each pregnant woman for the presence of varicose veins of the external genitalia. 57.5% of doctors performed a visual examination of the external genitalia with characteristic complaints of a pregnant woman, and 6.2% did not consider it necessary. 50.4% of doctors conducted a survey to identify

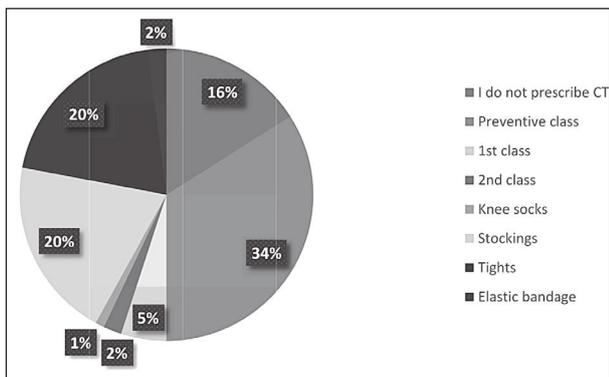


Figure 1 – Types and classes of compression knitwear used by doctors for the prevention of varicose veins (%). Note: CT is a compression jersey.

symptoms of pelvic varicose veins in pregnant women, and 39.8% reported that they did it only if there were any symptoms. According to 7 doctors, there is no need to conduct a survey in all pregnant women.

The main purpose of these questions and the answers received to them was to study the activity of gynecologists in the diagnosis and detection of CVI of the lower extremity veins and pelvic veins in pregnant women during the first examination. It turned out that most gynecologists are quite knowledgeable in this area, and give preference to objective and clinical-instrumental examination methods for early detection of CVI.

Based on this analysis, we tried to clarify the attitude to the second part of the study – the purpose and use of compression knitwear in pregnant women.

Almost half of the surveyed doctors (42.7%) – when visible sinuous veins were found on the legs of pregnant women, 16.4% – when confirming chronic venous insufficiency using a Doppler study, and 25.5% – based on anamnesis data or the presence of chronic venous insufficiency in parents, recommended wearing compression knitwear. 17.3% of doctors, even in the absence of complaints from the pregnant woman, recommended using compression stockings for preventive purposes. 18.8% of doctors, in order to prevent CVI, prescribed compression knitwear in the first trimester, 38.4% in the second trimester and 19.6% in the third trimester of pregnancy. In 23.2% of cases, doctors did not consider it necessary to use compression stockings for preventive purposes. **Figure 1** shows in percentage terms the types and classes of compression knitwear prescribed to pregnant women for the prevention of varicose veins.

As can be seen from the figure, about 1/3 of doctors prefer the use of compression knitwear by pregnant women of the preventive class. Taking into account the individual characteristics of patients, there were also combined responses. Attention is drawn to the smallest percentage of the use of elastic bandages for preventive purposes.

Different answers were received to the question about the choice of the type and class of compression knitwear in pregnant women with varicose veins: preventive class – 8.7%; 1st class – 19.2%; 2nd class – 18.3%; knee socks – 2.9%; stockings – 30.8%; tights 35.6%; elastic bandage – 7.7%. Only one doctor spoke about the absence of the fundamental importance of using compression knitwear. When asked about the timing of the appointment of compression knitwear to pregnant women with varicose veins of the lower extremities, 46.4% of doctors indicated that the second trimester was suitable for this. In 38.2% of doctors, such therapeutic tactics were used in the I, and in 8.2% of doctors – in the III trimester. Doctors who do not recommend compression knitwear were also identified (7.3%).

The approach to determining the duration of prescribing compression knitwear for prophylactic purposes

es to pregnant women without symptoms of CVI was ambiguous. 35.1% of doctors did not prescribe compression knitwear for preventive purposes to pregnant women without complaints and symptoms of CVI. 37.8% of doctors preferred to carry out prevention before childbirth, 21.6% preferred to carry out prevention until the end of the postpartum period, 5.4% of doctors preferred to extend prevention up to 3 months after childbirth. In the presence of varicose veins of the lower extremities in pregnant women, 50.4% of doctors considered it necessary to use compression knitwear before the end of the postpartum period, 29.2% – up to 3 months after childbirth, 15% of doctors considered that the use of compression knitwear before childbirth is necessary, and 5.3% considered that there was no need to use them at all.

The question of preferences in the type and class of compression knitwear used in pregnant women with edema and cramps of the lower extremities was characterized by different answers. 43.1% and 62.5% of doctors, respectively, who did not prescribe the wearing of knitwear, claimed that compression was of no fundamental importance in preventing edema and seizures. For the prevention of edema and seizures, 26.5% and 14.4% of doctors, respectively, preferred the preventive class, 6.9% and 8.7% – the first class, 2.9% and 4.8% – considered compression knitwear of the 2nd class more effective. None of the doctors considered the use of golf in the prevention of edema acceptable, only one doctor pointed out the possibility of their use in the prevention of seizures. The use of stockings by pregnant women met the wishes of 12.7% and 7.7% of doctors, respectively, and tights – 7.8% and 8.7%, respectively. Compression with elastic bandages was noted in 6.9% and 2.9% of cases.

When asked about the use of hospital (antiembolic) knitwear in pregnant women for the prevention of thromboembolic complications in patients with varicose veins of the lower extremities and CVI, 40.3% of respondents answered as follows: “according to clinical efficacy, hospital knitwear and standard compression knitwear have the same effect.” 59.7% of gynecologists prefer standard compression knitwear to hospital.

RAL-GZ-387 is a certificate of the strictest European standard for elastic compression knitwear. The standards of this certificate take into account such qualities as the composition of the product, material safety, compression ability, elasticity, durability, etc. When asked about the attitude to the certificate RAL-GZ-387, 19.6% said that for them it is a quality standard; 57.1% said that the presence of this certificate is desirable, but not necessary. 23.2% of doctors noted that there is no need for this standard in the practice of Azerbaijani doctors.

Two-thirds of the survey participants answered negatively to the question about the appointment of phlebotonic drugs for the prevention of varicose veins and venous insufficiency in pregnant women. **Figure 2** shows the answers of doctors to the question about the timing of the appointment of phlebotonic drugs.

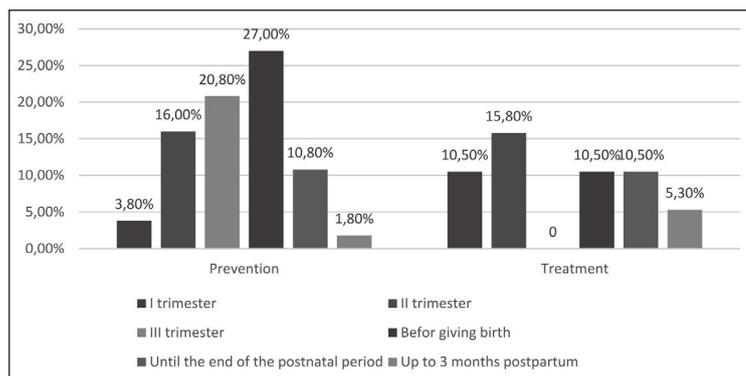


Figure 2 – Answers to the question about the appointment of phlebotonics for preventive and therapeutic purposes.

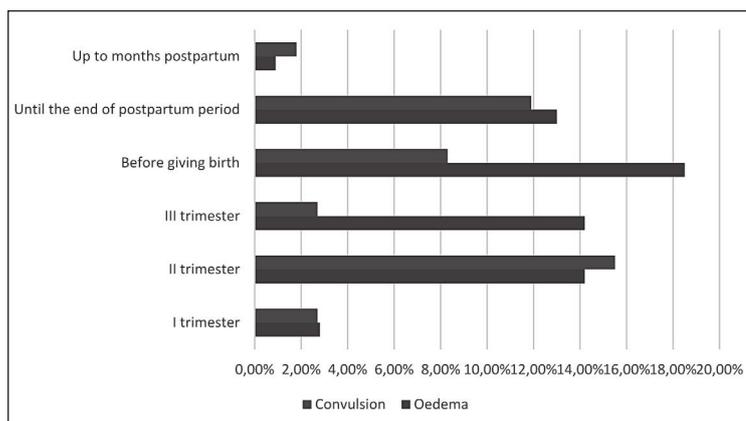


Figure 3 – Appointment of phlebotonics by doctors for therapeutic purposes in edema and convulsions.

Approximately 80% of respondents considered it unnecessary to prescribe such phlebotonics when pregnant women complain of edema of the lower extremities and convulsions. The remaining 20% of doctors used phlebotonics to treat symptoms during pregnancy and in the postpartum period (**fig. 3**).

When asked about the preference of phlebotonic drugs for the purpose of treatment and prevention, more than 40% of doctors noted Detralex. The second place was taken by Foam (**fig. 4**).

It was interesting to determine to what extent the answers of doctors with and without a degree correspond to modern recommendations. For this purpose, comparative statistics were carried out on the questions asked by 19 gynecologists with an academic degree and 94 practical gynecologists. Statistical accuracy was determined by Pearson’s nonparametric criterion – χ^2 . **Table 2** shows the groups of answers to the questions

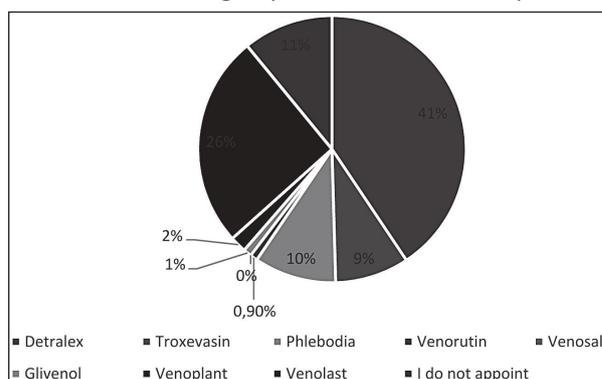


Figure 4 – Percentage ratio of phlebotonics prescribed by doctors.

Table 2 – Response options, between which there was a significant difference, received from doctors with an academic degree and without a degree

	With an academic degree	Without an academic degree	p	χ^2
Compression knitwear is not prescribed to pregnant women for preventive purposes	42,1%	19,1%	0,039	$\chi^2=8,35$
Prescribe a preventive class of compression knitwear in the presence of varicose veins in pregnant women.	26,7%	5,6%	0,008	$\chi^2=18,9$
According to the clinical effect, hospital knitwear and standard compression knitwear have the same effect.	52,6%	22,6%	0,049	$\chi^2=3,87$
It is desirable to have a certificate RAL-GZ-387	89,5%	55,1%	0,020	$\chi^2=7,78$
Phlebotonic drugs are prescribed in the second trimester of pregnancy for the treatment of CVI	15,8%	47,9%	0,003	$\chi^2=13,91$

Note: χ^2 – Pearson's nonparametric criterion; $p < 0,05$ – a significant difference between the results.

asked, between which there was a significant difference ($p < 0.05$).

The issues of diagnosis and treatment of CVI and varicose veins in pregnant women are reflected in many manuals. However, among them, protocols based on clinical cases developed by the National Institute for Health and Care Excellence (NICE) in the UK are of great importance [5]. The responses to our survey were analyzed and compared with NICE protocols.

During the examination of pregnant women, the lower extremities must be examined. Primiparous women with varicose veins should be informed that this problem is related to pregnancy. At the same time, according to protocols, the use of compression knitwear during pregnancy relieves such symptoms of CVI as pain, swelling in the legs and cramps and minimizes the likelihood of complications of varicose veins, but is not able to prevent the development of varicose veins. If, in addition to complaints from the pregnant woman, she has eczema, pigmentation, unhealed ulcers or scars from healed ulcers, it is necessary to refer her to a phlebologist for Dopplerography. The opinions of our doctors on this matter correspond to the protocols and can be considered satisfactory.

Most gynecologists considered it advisable to use compression stockings only before childbirth. The num-

ber of doctors prescribing compression stockings for treatment is 29.2% of the total number of respondents. To prevent the development of complications in the future and prevent the progression of CVI, gynecologists should be convinced of the effectiveness of longer-term use of compression stockings. The appointment of compression knitwear by doctors to pregnant women in most cases for the treatment of pregnant women, and not for prevention, has been the subject of numerous discussions and discussions at seminars.

The careful approach of gynecologists to the appointment of phlebotonics during pregnancy was noted. A negative answer was given to the question about the use of phlebotonics for preventive purposes in 60% of cases. Doctors prescribing phlebotonics indicated that most of the appointments were made in the second trimester and only before delivery.

Conclusions. The attention of gynecologists in Baku to the diagnosis of CVI and varicose veins in pregnant women can be assessed as satisfactory. In most cases, there is a tendency among doctors to prescribe compression stockings. A Doppler study in the diagnosis of CVI of pregnant women with symptoms such as seizures and edema is prescribed by about 2/3 of doctors. It is planned to systematically conduct sanitary and agitation work among pregnant women on the main measures of prevention of CVI and awareness-raising activities in the direction of expanding clinical examinations of pregnant women to increase the effectiveness of compression therapy.

Prospects for further research. To prevent the development of complications in the future and prevent the progression of CVI, gynecologists should be convinced of the effectiveness of longer-term use of compression stockings.

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ПРОБЛЕМА ХРОНІЧНОЇ ВЕНОЗНОЇ НЕДОСТАТНОСТІ У ВАГІТНИХ

Ісмаїлова Н. Ф.

Резюме. Метою роботи було виявити схожість та відмінності в підходах до діагностики та лікування хронічної венозної недостатності (ХВН) у вагітних серед гінекологів з різною професійною підготовкою та досвідом роботи на основі опитування, проведеного у місті Баку.

Було проведено опитування 113 гінекологів, що працюють в пологових будинках, гінекологічних відділеннях лікарень, гінекологічних та пологових відділеннях приватних клінік та жіночих консультаціях міста Баку. Опитувальник був розроблений співробітниками кафедри «Загальна хірургія з курсами серцево-судинної хірургії та нейрохірургії» Азербайджанського державного інституту удосконалення лікарів ім. А.Алієва та складався з 32 запитань, що відображають основні аспекти проблеми ХВН у вагітних і варіантів на кожне запитання. Середній вік лікарів складав 46,2±1,09 років, середній стаж роботи – 19,7±1,09 років.

Відповіді більшості гінекологів свідчили про використання компресійних панчіх. Доплерографію через судоми та набряки у вагітних виконують 2/3 лікарів. На запитання, чи опитували вагітних про наявність у них якихось скарг, характерних для венозної недостатності нижніх кінцівок більшість лікарів (79,6%) відповіли, що необхідно перевіряти дану інформацію у кожної жінки. У 18,6% випадків лікарі заявили, що проведуть ціленаправлене обстеження тільки у випадку виявлення скарг, що вказують на ХВН. Лише два гінеколога відповіли, що немає необхідності проводити дане опитування у вагітних.

Призначення компресійних панчіх вагітним жінкам відбувається частіше з лікувальною ніж з профілактичною метою. Важливість сертифікату RAL-GZ-387 для використання компресійних панчіх більш переконлива в оцінках лікарів, що мають учені ступені, ніж в практиків.

Рівень уваги до діагностики ХВН серед гінекологів міста Баку є задовільним. Планується систематичне проведення санітарно-агітаційної роботи серед вагітних щодо основних мір профілактики ХВН та інформаційно-просвітницьких заходів у напрямку розширення клінічних обстежень вагітних для підвищення ефективності компресійної терапії.

Ключові слова: хронічна венозна недостатність, вагітність, компресійний трикотаж, опитувальник.

THE PROBLEM OF CHRONIC VENOUS INSUFFICIENCY IN PREGNANT WOMEN

Ismayilova N. F.

Abstract. *Goal.* To identify similarities and differences in approaches to the diagnosis and treatment of CVI in pregnant women among gynecologists with different professional training and work experience based on a survey conducted in Baku.

Methods. A survey was conducted of 113 gynecologists working in maternity hospitals, gynecological departments of hospitals, gynecological and maternity departments of private clinics and women's consultations in Baku. The questionnaire was developed by the staff of the Department of "General Surgery with courses of Cardiovascular Surgery and Neurosurgery" of the Azerbaijan State Institute of Advanced Medical Education named after A. Aliyev and consisted of 32 questions reflecting the main aspects of the problem of CVI in pregnant women, and answers to each question. The questionnaire consisted of 32 questions reflecting the main aspects of the problem of CVI in pregnant women, and the answers to each question. The average age of doctors was 46.2±1.09 years, the average work experience was 19.7±1.09 years.

Results. The answers of most gynecologists testified to the use of compression stockings. Dopplerography due to convulsions and edema in pregnant women is performed by about 2/3 of doctors. When asked whether pregnant women were interviewed about the presence of any complaints characteristic of venous insufficiency of the lower extremities, the overwhelming majority of doctors (79.6%) replied that it is necessary to check this information in every pregnant woman. In 18.6% of cases, doctors stated that they would conduct a targeted examination only if complaints indicating CVI were detected. Only 2 gynecologists answered that there is no need to conduct this survey in all pregnant women.

The appointment of compression stockings by pregnant women occurs more often for therapeutic than preventive purposes. The importance of the RAL-GZ-387 certificate for the use of compression stockings is more convincing in the assessments of doctors with academic degrees than practitioners.

Conclusions. The level of attention to the diagnosis of CVI among gynecologists in Baku is satisfactory. It is planned to systematically conduct sanitary and agitation work among pregnant women on the main measures of prevention of CVI and awareness-raising activities in the direction of expanding clinical examinations of pregnant women to increase the effectiveness of compression therapy

Key words: chronic venous insufficiency, pregnancy, compression knitwear, questionnaire.

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A – Work concept and design, B – Data collection and analysis, C – Responsibility for statistical analysis, D – Writing the article, E – Critical review, F – Final approval of the article.

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