



New Day in Medicine
Новый День в Медицине

NDM



TIBBIYOTDA YANGI KUN

Ilmiy referativ, marifiy-ma'naviy jurnal



AVICENNA-MED.UZ



ISSN 2181-712X.
EISSN 2181-2187

1 (75) 2025

Сопредседатели редакционной коллегии:

**Ш. Ж. ТЕШАЕВ,
А. Ш. РЕВИШВИЛИ**

Ред. коллегия:

М.И. АБДУЛЛАЕВ
А.А. АБДУМАЖИДОВ
Р.Б. АБДУЛЛАЕВ
Л.М. АБДУЛЛАЕВА
А.Ш. АБДУМАЖИДОВ
М.А. АБДУЛЛАЕВА
Х.А. АБДУМАДЖИДОВ
Б.З. АБДУСАМАТОВ
М.М. АКБАРОВ
Х.А. АКИЛОВ
М.М. АЛИЕВ
С.Ж. АМИНОВ
Ш.Э. АМОНОВ
Ш.М. АХМЕДОВ
Ю.М. АХМЕДОВ
С.М. АХМЕДОВА
Т.А. АСКАРОВ
М.А. АРТИКОВА
Ж.Б. БЕКНАЗАРОВ (главный редактор)
Е.А. БЕРДИЕВ
Б.Т. БУЗРУКОВ
Р.К. ДАДАБАЕВА
М.Н. ДАМИНОВА
К.А. ДЕХКОНОВ
Э.С. ДЖУМАБАЕВ
А.А. ДЖАЛИЛОВ
Н.Н. ЗОЛотова
А.Ш. ИНОЯТОВ
С. ИНДАМИНОВ
А.И. ИСКАНДАРОВ
А.С. ИЛЪЯСОВ
Э.Э. КОБИЛОВ
А.М. МАННАНОВ
Д.М. МУСАЕВА
Т.С. МУСАЕВ
М.Р. МИРЗОЕВА
Ф.Г. НАЗИРОВ
Н.А. НУРАЛИЕВА
Ф.С. ОРИПОВ
Б.Т. РАХИМОВ
Х.А. РАСУЛОВ
Ш.И. РУЗИЕВ
С.А. РУЗИБОВ
С.А. ГАФФОРОВ
С.Т. ШАТМАНОВ (Кыргызстан)
Ж.Б. САТТАРОВ
Б.Б. САФОВ (отв. редактор)
И.А. САТИВАЛДИЕВА
Ш.Т. САЛИМОВ
Д.И. ТУКСАНОВА
М.М. ТАДЖИЕВ
А.Ж. ХАМРАЕВ
Д.А. ХАСАНОВА
А.М. ШАМСИЕВ
А.К. ШАДМАНОВ
Н.Ж. ЭРМАТОВ
Б.Б. ЕРГАШЕВ
Н.Ш. ЕРГАШЕВ
И.Р. ЮЛДАШЕВ
Д.Х. ЮЛДАШЕВА
А.С. ЮСУПОВ
Ш.Ш. ЯРИКУЛОВ
М.Ш. ХАКИМОВ
Д.О. ИВАНОВ (Россия)
К.А. ЕГЕЗАРЯН (Россия)
DONG JINCHENG (Китай)
КУЗАКОВ В.Е. (Россия)
Я. МЕЙЕРНИК (Словакия)
В.А. МИТИШ (Россия)
В.И. ПРИМАКОВ (Беларусь)
О.В. ПЕШИКОВ (Россия)
А.А. ПОТАПОВ (Россия)
А.А. ТЕПЛОВ (Россия)
Т.Ш. ШАРМАНОВ (Казахстан)
А.А. ЩЕГОЛОВ (Россия)
С.Н. ГУСЕЙНОВА (Азербайджан)
Prof. Dr. KURBANHAN MUSLUMOV (Azerbaijan)
Prof. Dr. DENIZ UYAK (Germany)

ТИББИЁТДА ЯНГИ КУН НОВЫЙ ДЕНЬ В МЕДИЦИНЕ NEW DAY IN MEDICINE

*Илмий-рефератив, маънавий-маърифий журнал
Научно-реферативный,
духовно-просветительский журнал*

УЧРЕДИТЕЛИ:

**БУХАРСКИЙ ГОСУДАРСТВЕННЫЙ
МЕДИЦИНСКИЙ ИНСТИТУТ
ООО «ТИББИЁТДА ЯНГИ КУН»**

Национальный медицинский
исследовательский центр хирургии имени
А.В. Вишневского является генеральным
научно-практическим
консультантом редакции

Журнал был включен в список журнальных
изданий, рецензируемых Высшей
Аттестационной Комиссией
Республики Узбекистан
(Протокол № 201/03 от 30.12.2013 г.)

РЕДАКЦИОННЫЙ СОВЕТ:

М.М. АБДУРАХМАНОВ (Бухара)
Г.Ж. ЖАРЫЛКАСЫНОВА (Бухара)
А.Ш. ИНОЯТОВ (Ташкент)
Г.А. ИХТИЁРОВА (Бухара)
Ш.И. КАРИМОВ (Ташкент)
У.К. КАЮМОВ (Тошкент)
Ш.И. НАВРУЗОВА (Бухара)
А.А. НОСИРОВ (Ташкент)
А.Р. ОБЛОКУЛОВ (Бухара)
Б.Т. ОДИЛОВА (Ташкент)
Ш.Т. УРАКОВ (Бухара)

1 (75)

2025

январь

www.bsmi.uz

<https://newdaymedicine.com> E:

ndmuz@mail.ru

Тел: +99890 8061882

Received: 20.12.2024, Accepted: 03.01.2025, Published: 10.01.2025

UDC 616.61-036.11

RECOVERY OF RENAL FUNCTION IN WOMEN WHO UNDERWENT ACUTE RENAL FAILURE OF OBSTETRIC ETIOLOGY AGAINST THE BACKGROUND OF SOMATIC PATHOLOGY

R.K. Rajabov <https://orcid.org/0009-0003-3541-4035>
G.S. Khodjieva, <https://orcid.org/0009-0006-7303-6911>

Bukhara State Medical Institute named after Abu Ali ibn Sina, Uzbekistan, Bukhara, st. A. Navoi.
1 Tel: +998 (65) 223-00-50 e-mail: info@bsmi.uz

✓ Resume

One of the largest global environmental disasters in modern history, experienced by countries and about 75 million people in Central Asia, is the tragedy of the Aral Sea, which, in its ecological, economic and humanitarian consequences, poses a direct threat to the sustainable development of the region, the health of the gene pool and the future of the people living there.

Keywords: shared contribution, gynecological diseases, physiological norm.

SOMATİK PATOLOGIYA FONIDAN AKUSTRIK ETIOLOGIYASIDAGI O‘TKIR BUYRAK YETISHMOVCHILIGIGA UCHRAGAN AYOLLARDA BUYRAK FONKSIYASINI TIKLANISHI

R.K.Rajabov <https://orcid.org/0009-0003-3541-4035>
G.S.Khodjieva, <https://orcid.org/0009-0006-7303-6911>

Abu Ali ibn Sino nomidagi Buxoro davlat tibbiyot instituti, O‘zbekiston, Buxoro sh. A. Navoiy kochasi 1 Tel: +998 (65) 223-00-50 e-mail: info@bsmi.uz

✓ Rezyume

Markaziy Osiyo mamlakatlari va 75 millionga yaqin aholi boshdan kechirgan zamonaviy tarixdagi eng yirik global ekologik ofatlardan biri Orol fojiasi bo‘lib, u o‘zining ekologik, iqtisodiy va gumanitar oqibatlari bilan barqaror rivojlanishga bevosita tahdid solmoqda. hudud, genofond salomatligi va u yerda yashovchi odamlarning kelajagi.

Kalit so‘zlar: umumiy hissa, ginekologik kasalliklar, fiziologik me‘yor.

Relevance

The Aral Sea crisis zone directly covers the territories of Turkmenistan, Kazakhstan and Uzbekistan, and indirectly – Tajikistan and Kyrgyzstan. Scientific problems of assessing the impact of environmental factors on human health and substantiating a system of health measures are priority tasks state environmental policy in almost all developed countries. Establishing cause-and-effect relationships between environmental risk factors and the health status of the population makes it possible to manage risk factors for preventive purposes [2.9.10.11]. Among the complex of various factors influencing the state of population health, according to the World Health Organization, the share contribution of the environmental component does not exceed 20-30%. The negative impact of the environment in conditions of mass technogenic load is reflected in the deterioration of demographic indicators, a decrease in the functional capabilities and defenses of the body, an increase in morbidity and mortality of the population [5; 6; 7; 10].

The current environmental problems in the region affect the health of the population, and first of all, the health of mothers and children. According to statistics from the Ministry of Health of the Republic of Uzbekistan, extragenital pathology of women has increased due to the growth of socially significant diseases, including diseases of the genitourinary system. (9; 10; 11; 12) The health of people of childbearing age, their ability to reproduce, and safe motherhood are important aspects of public health.

Against the background of chronic diseases of the renal pelvis during pregnancy, very formidable

complications develop preeclampsia, miscarriage, intrauterine infection of the fetus, developmental delays and thrombophilic conditions that increase the risk of bleeding during childbirth (8; 12; 14). The above-mentioned pathologies of pregnancy and various extreme conditions characterized by sudden renal dysfunction subsequently lead to multiple organ failure and increase the risk of maternal mortality (8; 19; 20; 21; 22; 23;). The priority area is to study the impact of EHZ on the course and complications of pregnancy and childbirth, and the choice of rehabilitation principles.

Purpose of the study: Based on a thorough study of the etiology and clinical course of acute renal failure caused by obstetric pathology and pre-offensive background, develop specific priority, differentiated methods rehabilitation with an assessment of their effectiveness.

Materials and methods of research

The research was carried out at the Department of Obstetrics and Gynecology No. 2 of the Bukhara State Medical Institute and the Regional Branches of the Republican Center for Emergency Medical Care of the Bukhara, Navoi and Khorezm Regions and the Autonomous Republic of Karakalpakstan and in regional perinatal centers for the period from 2015 to 2022. The study groups included 72 women who had acute renal failure of obstetric etiology.

All pregnant women and women in labor were transferred from maternity centers to the intensive care and extracorporeal detoxification departments of regional emergency medical care centers via air ambulances, after consultation with nephrologists and resuscitators, who identified the causes and features of the complication on site, taking into account anamnestic data, extracts from the birth history and outpatient observation cards in antenatal clinics. Most of the sick women were residents of rural areas - 67%, urban - 33%. Of the total number of examined women with acute renal failure of obstetric etiology, 100% of patients had an "initial background" consisting of extragenital diseases (anemia, chronic pyelonephritis, etc.). Not limited to the above data, in order to identify the time frame for restoration of renal function in women who have suffered acute renal failure of obstetric etiology, to resolve issues related to the possibility of repeated pregnancies after rehabilitation measures were carried out in them after discharge, scientific research on 72 women developed principles for conducting rehabilitation measures at various times after suffering acute renal failure of obstetric etiology.

The patients' medical histories, anamnesis and objective examination data, and the results of laboratory and instrumental examination methods were studied. The collection of anamnestic data included complaints, study of hereditary and family history, information on the presence of extragenital pathology, gynecological diseases, and operations. The generative function was studied in detail, information on sexual debut, parity, the course and outcomes of previous pregnancies was clarified. During the examination

The patients had their anthropometric parameters measured, their body type determined, and the condition of their organs and systems assessed.

The features of the course of this pregnancy and childbirth, complications of the early postpartum period were studied in detail. All the data obtained were entered into specially developed cards, which took into account all the studies of the dissertation work. Voluntary written consent for the collection of biological material and the processing of personal data was obtained from each examined woman. All examined women, as well as healthy women, underwent ultrasound examination (US) using special equipment from the company "Mindray DC 40" (Xitoy) with a sensor frequency of 3.5 MHz. 200 studies.

Dopplerographic examination was conducted on the scanner «SSI 5000 SonoScape» (PRC), using the sensor in the echography and Dopplerography modes. The study used a convex abdominal sensor with frequencies of 3.5/5 MHz. 200 studies.

The study was conducted after childbirth and in the dynamics of rehabilitation therapy for all the examined women. The blood flow velocity in the renal arteries was determined. Renal blood flow was studied using pulse-wave and color Doppler modes. Dopplerometric parameters were determined at the level of segmental, interlobar arteries. Qualitative and quantitative assessment of renal blood flow parameters was performed using the program for vascular Doppler studies, while V max - maximum systolic blood flow velocity, V min - end diastolic blood flow velocity were calculated. All women with complicated ARF in all periods of rehabilitation treatment and observations underwent clinical and laboratory studies, including general blood and urine analysis. The amount of protein in the blood,

counting the amount of protein in the urine, creatinine, urea in the blood serum were studied. The renal SCF is determined by the Reberg-Tareev test, which is used to evaluate the excretory capacity of the kidneys by determining the SCF (ml/min) and tubular reabsorption (%) by the clearance of endogenous creatinine in the blood and urine. The Reberg-Tareev test was used for differential diagnostics of functional and organic kidney damage.

The data obtained during the study were subjected to statistical processing on a Pentium-IV personal computer using software

Microsoft Office Excel-2010 package, including the use of built-in statistical processing functions and "Biostatistics" for Windows (version 4.03). Methods of variational parametric and nonparametric statistics were used. The statistical significance of the obtained measurements when comparing average quantitative values was determined by the Student criterion (t) with the calculation of the probability of error (P) when checking the normality of distribution (by the excess criterion) and the equality of general variances (F - Fisher criterion).

Result and discussions

The group we studied consisted of 34 women who had acute renal failure of obstetric etiology against the background of preeclampsia and 3–5 concomitant extragenital diseases.

All of them had anemia. Among other EGD, chronic pyelonephritis, glomerulonephritis, hepatitis, bronchitis, and diabetes mellitus were dominant. Less common were rheumatism, diffuse goiter, chronic frequently recurring tonsillitis, stomatitis, and gout. Of the 34 women examined in this group, 9 (26.4%) had 3 EGD, 18 (52.9%) had 4 EGD, and 7 (20.5%), 5 EHZ. The age of patients ranged from 22 to 29 years, on average amounting to 26.7 ± 1.4 .

According to the archival material, all of them had acute renal failure against the background of preeclampsia and were caused by blood loss during childbirth, which was within 700.0 - 1900.0 ml, averaging 1300.0 ± 220.0 ml. All of the women were examined after their active call to the outpatient clinic and the nephrology and hemodialysis department of the regional center and the Federal Center for Epidemiology and Orthopedics of the Bukhara Region, in periods from 6 months to 5 years.

Data from a clinical study of women who had acute renal failure against the background of preeclampsia and EGZ, after 6 months.

During the specified period, 34 women were examined. All of them noted general weakness, rapid fatigue, dizziness, frequent nighttime urination, menstrual cycle disorders in the form of absence thereof, irregularity of cycles, abundance, duration. 27 women had poor sleep, memory impairment, vision impairment, hair loss, frequent exacerbations of catarrhal phenomena, high blood pressure with severe headaches. 31 of the absolute majority of women

Pastosity and, in some cases, swelling in the face, lower back, feet and shins were noted.

It is easy to see from the table that women had pronounced anemia due to a significant decrease in globular volume, as evidenced by low Ht values. The severity of anemia in this group of women, 6 months after the acute renal failure, was the greatest of all the groups we considered.

Hypoproteinemia with a decrease in the A/G ratio, causing edema syndrome, was also most pronounced in this group. As for blood electrolytes, the potassium concentration in plasma was on average almost at the upper limit of the physiological norm, while the sodium concentration indicated moderate hyponatremia.

Azotemia levels in almost all subjects examined during the specified period exceeded the physiological norm by more than 40%, which indicated a violation of the kidneys' concentrating ability.

The acid-base balance indicators indicated subcompensated metabolic acidosis with elements of respiratory compensation. Their daily diuresis exceeded the upper limit of the norm by almost 80%.

Nocturnal diuresis was more than 70% of daily diuresis. Zemnitsky's test revealed hypoisostenuria. The protein content in urine averaged $2.25 \pm 0.04\%$, and was most pronounced compared to the previous groups of women examined. The same can be said about leukocyturia, which we found in 28 (82.3%) of the 34 women examined.

In all the examined women, the KF and KR values were clearly underestimated. The KF was in the range from 0.62 to 0.91 ml/s, averaging 0.69 ± 0.04 ml/s. KR fluctuated from 79 to 87%, averaging $83.4 \pm 1.4\%$. The ultrasound examinations performed in all the women revealed an increase in the size of the kidneys with a decrease in the TPP and expansion of the CPS, high and uniform echogenicity.

Table No. 1.

The table below shows the clinical and biochemical parameters of women 6 months after acute renal failure. (n-34)

Blood		Under study group	Referents meaning	Urine
Hemoglobin, g/l		62±4	120-140	Daily
		2.5±0.2		diur
Erythrocytes, g/l		20.3±0.5		esis,
Hematocrit, %		48.2±1.7	3.9-4.7	ml 2680.0±130.0
		0.61±0.07		Relative
Total protein, g/l		4.3±0.3	32-45	density:
A/G ratio		132.9±2.7	66-85 g/l	Maximum - 1008
Potassium		13.4±0.8	0.5±0.10	minimum -1003
	plasm	149.2±3.7	3.6-5.4	
a,				Protein, % 2.25±0.04
mmol/l			135-150	
Sodium			2.5-8.3	Leukocytes,
	plasm			p/zr
a,				22.8±2.2
mmol/l			44-97	
Urea, mmol/l				
Creatinine, µmol/l				
K-Base	pH 7,252±0,004	pCO ₂ , kPa 3,629±0,009	BB, mmol. l 29.1±1.8	VE, mmol. l-12.8±0.5
Balance:				

Table No. 2

Renal blood flow parameters in women with acute renal failure associated with preeclampsia and anemia. (n-22)

Indicator		Referents meaning	Under examination group	P
Main trunk	LMS	2.21±0.09	2.52±0.11	<0.05
Renal arteries	IR	0.56±0.02	0.61±0.03	>0.05

The data presented in Table 2 clearly demonstrate that in women who had AKI against the background of mild preeclampsia, according to our data, only the blood flow in the main trunk of the renal artery underwent reliable changes, where the SDO and IR indicators increased by 14.0 and 8.9%, respectively. If the increase in the SDO indicator was statistically significant, then the IR only outlined a tendency to increase.

Isotope renography, which we performed on 30 women of the specified group, clearly indicated unresolved pathology in them. All isotope curves were low-amplitude, symmetrical, without clear differentiation of the secretory and excretory phases. Isotope renography also noted an increase in kidney size. Renogram curves were symmetrical and had an isosthenuric character.

Summarizing the data obtained from the comprehensive examination of women, who have suffered acute renal failure of obstetric etiology, which developed against the background of preeclampsia and

3 – 5 EHZ, significant renal function disorders can be noted in the specified period in almost all examined persons, ascertained in addition to general clinical data, by data from a special examination. In our opinion, it is important that the severity of renal function disorders in this group of women was the greatest, which clearly emphasizes the importance of the “initial background”, i.e., the accompanying

EHZ, which in turn depends on the environmental circumstances of the Aral Sea region.

During the specified period, our 29 women who had suffered acute renal failure of obstetric etiology were examined; almost all patients continued to report general weakness, fatigue, head pain, dizziness, and frequent nighturination. All women had menstrual dysfunction-anomalous uterine bleeding (AMK) reproductiveage and continued to have polyuria with severe nocturia. Their daily diuresis was within the range of 1850.0 - 2470.0 ml, averaging 2280.0 ± 90.0 ml. The ratio of daytime to nighttime diuresis was within 1:2. Monitoring research studied us laboratory parameters, continued have place anemia, hypoproteinemia with significant decrease A/G coefficient, conditioningthe pastosity of the lower extremities and face that we noted. Blood electrolytes: potassium continued to remain at the upper limit of the norm, while sodium remained underestimated. The nitrogenous waste indicators in almost all the examined women in this group were higher than the physiological norm. The values of the acid-base balance indicators improved somewhat, but there continued to be subcompensated metabolic acidosis, testifying about violation excretory function of the kidneys, i.e. the ability of the kidneys maintain acid-base balance.

The same can be noted in the isotope study and ultrasound examination we conducted for these groups of women. In no case did the CF and CR reach normal values. The CF was within the range of 0.69 to 0.97 ml/s, averaging 0.75 ± 0.03 ml/s. CR fluctuated from 81 to 90%, averaging $85.1 \pm 0.9\%$.

The relative density of urine according to Zimnitsky's test continued to indicate hyposthenuria, which was consistent with the KF and KR indices.

Eleven (37.9%) of the 29 examined women had leukocyturia, 4 of them had bacteriuria. Eleven (37.9%) women in this group had arterial hypertension within 140–160 by 85–95 mm Hg. These were the same 11 women with arterial hypertension diagnosed at the previous stage of the examination.

The ultrasound, Doppler and isotope renography data (12 women) differed little from those at the previous examination period.

Summarizing the data obtained by us from a comprehensive examination of women who had acute renal failure against the background of preeclampsia and 3-5 EGZ, we can say with a high degree of certainty that in no case in this group of women did a full recovery of lost renal functions and normalization of menstrual function occur after a year. In 38% of cases, arterial hypertension was detected in young women, anemia, hypoproteinemia, disorders of CF and CR, azotemia, oliguria with nocturia, leukocyte cylindruria, hyposthenuria continued to dominate.

We also conducted a comprehensive examination of women who had acute renal failure of obstetric etiology against the background of preeclampsia and 3-5 EGZ after 2 years. This group consisted of 27 women. Their common complaints were: weakness, rapid fatigue, intermittent sleep, frequent night urination, memory loss. 17 (62.9%) women reported headache. 10 women (37%) of them had arterial hypertension in the range of 130-140 to 85-90 mm Hg. During the examination, we paid attention to: paleness of the skin and mucous membranes, pastosity of the face and distal extremities. Moderate edema in the shins and feet was noted in 7 women. Almost all the examined women reported menstrual dysfunction - AMC.

Zimnitsky's test revealed polyuria within the range of 1800.0 - 2400.0 ml per day, averaging 2080.0 ± 120.0 ml. According to Zimnitsky's test, nocturnal diuresis was twice as high as daytime diuresis.

All women in this group, 2 years after the acute renal failure, had severe anemia, hypoproteinemia with a decrease in the A/G ratio by more than 50%. Their blood electrolytes returned to normal physiological values, while the nitrogenous waste indicators still exceeded the norm. The acid-base balance indicators improved somewhat, but subcompensated metabolic acidosis persisted.

Ultrasound of the kidneys in 27 patients and isotope renography in 16 patients did not reveal normal values in one case. On ultrasound, the kidneys remained moderately enlarged. There was a decrease in the renal parenchyma up to 2.0 ± 0.2 mm, in most cases, hyperechogenicity of the interstitium and moderate expansion of the renal pelvis were noted. Isotope renogram still had an isosthenuric character, although the amplitude of the curves with barely noticeable segmentation slightly increased. CF and CR also remained below normal values, fluctuating within 0.37 - 1.12 ml/s and 84 - 96%, they averaged 0.62 ± 0.04 ml/s and $91.2 \pm 1.0\%$, respectively. As for the urine test, polyuria continued to be observed within the range of 1850.0 - 2400.0 ml per day, averaging 2060.0 ± 110.0 ml. The proportion of night urination decreased slightly, nocturia continued to occur. The ratio of daytime and nighttime diuresis was within 1:1.

The relative density of urine continued to remain below the norm, fluctuating within 1009 - 1003, indicating hyposthenuria. Proteinuria was observed in 20 examined women, averaging $1.95 \pm 0.03\%$. Leukocyturia was noted in 7 women within 9 - 26 in the field of vision, averaging 18.4 ± 1.7 in the field of vision. Arterial hypertension of 140 - 150 by 85 - 100 mm Hg continued to be observed in 11 (40.7%) women (the same ones at the previous examination period). Summarizing the obtained data of a comprehensive study of renal function in women who suffered from acute renal failure against the background of preeclampsia

and 3 - 5 EGZs 2 years later, it can be stated that in none of the cases did normalization of the lost renal functions by this time and normalization of the menstrual cycle occur. There was only an improvement in the water excretion function, while the concentration function of the kidneys remained reduced.

We conducted a comprehensive examination of women who had acute renal failure of obstetric etiology against the background of preeclampsia and 3-5 EGZ after 3 years.

This group consisted of 19 women. Two women from the group who had suffered acute renal failure against the background of preeclampsia and 3-5 EGZ, who were called for examination, died 2.5 years after suffering acute renal failure, the rest did not appear for examination.

Of the 19 women mentioned, 16 complained of weakness, fatigue, dizziness, headache, poor memory, frequent urination at night, frequent catarrhal phenomena.

In 12 (63.2%) of the 19 women examined, menstrual function was normalized, while in the remaining 7 (36.8%) women in this group, it was with some disturbances in terms of timing, pain, abundance, etc.

During examination, pallor and moderate tachycardia continued to be present. Arterial hypertension was diagnosed in 10 (52.6%) of the examined women.

In 6 (31.6%) women, the transition from acute renal failure to chronic renal failure was noted with increased values of nitrogenous wastes in the blood and polyuria exceeding 2 liters, and decreased values of the relative density of urine (hypoisothenuria).

In general, in this group of women, anemia and hypoproteinemia, increased concentration of nitrogenous wastes in the blood against the background of subcompensated metabolic acidosis continued to be present even after 3 years. Ultrasound and isotope renography readings were far from normal in the absolute majority of cases (78.9%), just like the CF and CR. CF and CR fluctuated within 0.51 ± 1.11 ml/s and 87-96%, averaging 0.71 ± 0.03 ml/s and $94.2 \pm 1.2\%$. Daily diuresis averaged 1850.0 ± 90.0 ml. The relative density of urine in the group as a whole was 1012-1008. Proteinuria continued to be present in 6 examined women, averaging $0.80 \pm 0.04\%$. Four of them had leukocyturia within 10-16 in the field of view.

A more detailed analysis of the obtained data revealed the best results for all the studied parameters of women in this group 3 years after the acute renal failure in only 4 (21.4%) of the 19 women examined.

All of them had normalization of electrolyte, nitrogenous waste and acid-base balance parameters in the blood, although moderate polyuria within 1600.0 - 1700.0 ml per day and nocturia continued to occur. They also had higher values of relative urine density (1018 - 1012). In none of the cases of the above-mentioned 4 women was proteinuria or leukocyturia observed. The KF and KR parameters in these 4 women were as close to normal as possible, averaging 142 ± 0.07 ml/s and $97.4 \pm 0.2\%$.

An ultrasound of the kidneys did reveal slightly enlarged kidneys, moderate echogenicity of the interstitium, and a decrease in the TPP to 3.2-3.4 mm.

Isotope renography performed on two of the four patients was symmetrical with significant amplitude and clearly differentiated secretory and excretory phases.

One of the 4 women had moderate arterial hypertension. All 4 women had a history of 3 EGD (chronic pyelonephritis, hepatitis, nodular goiter, anemia).

Of the remaining 15 women examined, another 5 (26.3%) women had arterial hypertension in the range of 130-160 by 85-100 mm Hg and transition to chronic renal failure. In our opinion, it was interesting that all women in whom we found the transition from ARF to CRF had a history of 4-5 EHRs (chronic glomerulonephritis, pyelonephritis, hepatitis, rheumatism, diabetes mellitus, gout, chronic bronchitis, diffuse goiter, etc.), which clearly demonstrates the influence of the "initial background" on the process of restoration of renal functions after ARF and its outcomes.

Four to five years after the acute renal failure, according to the active questionnaire we conducted for women who had suffered acute renal failure against the background of preeclampsia and 3-5 EGZ, two more women joined. The group of subjects included 14 women, of whom only four (28.6%) had a satisfactory condition with normal values of the parameters studied. Only one of the four women had normal values of the parameters characterizing renal function, combined with moderate polyuria within 1700.0-1800.0 ml per day without clear nocturia with subnormal values of the relative density of urine, but three women with moderate arterial hypertension had neither CF nor CR within the normal range.

As for the other women in this group, moderate hypoproteinemia with a reduced A/G ratio of 1.0-1.1 was observed against the background of anemia. There were elevated values of nitrogenous waste products in the blood, metabolic acidosis, which was compensated in 4 women (pH 7.35-7.36; BE - -4.1-5.1 mmol/l), and subcompensated in the remaining 6 women (pH 7.32-7.33; BE - -6.0-5.8 mmol/l). These same 6 women had elevated values of nitrogenous waste product concentration in the blood. Their blood urea and creatinine were within 12.6-14.2 mmol/l and 132-153 μ mol/l, respectively. They also showed a significant decrease in CF and CR, which were within the range of 0.72-0.99 ml/s and 95-96.5%.

The relative density of urine revealed hyposthenuria (1006 – 1013). Daily diuresis averaged 2100.0 ± 110.0 ml. Kidney ultrasound and isotope renography revealed slightly enlarged kidneys with a clear decrease in TPP to 2.1 – 2.3 mm, increased echogenicity, low-amplitude curves without clear differentiation of segments. Arterial hypertension was noted in 5 out of 10 examined women in this group.

In patients who had AKI against the background of severe PE, the resistance of intrarenal segmental and interlobar arteries continued to increase. RI of segmental, interlobar and intrarenal arteries in women was increased relative to those with mild PE by 4.3%, respectively ($p < 0.05$ in both cases). RI of the distal renal artery, remaining unchanged, was 6.8% lower than this indicator of intrarenal segmental arteries and 3.9% lower than the resistance of intrarenal interlobar arteries. All of the above indicated a significant increase in the resistance of intrarenal arteries, which led to a decrease in renal blood flow, a decrease in the renal threshold for albumin excretion and deterioration of renal function, in particular filtration and concentration. This was evidenced by a decrease in diuresis and relative density of urine and the absence of recovery of renal function even after 5 years. Summarizing the obtained data on the functional state of the kidneys in women who suffered acute renal failure against the background of preeclampsia and 3-5 EGZ, we can confidently assume that the restoration of lost renal functions in them occurs extremely slowly and, other things being equal, only by 3-4 years after the suffered acute renal failure. Complete restoration of lost renal functions with normalization of all studied parameters in our case did not occur even by 5 years. Only 8 (57.1%) women after 4-5 years of the study had normalization of nitrogenous wastes in the blood, electrolytes, acid-base balance, but with polyuria with moderate hyposthenuria. In 6 (42.8%) women, there was a transition to chronic renal failure. Compensated chronic renal failure with increased nitrogenous wastes in the blood, reduced KF and KR indices, polyuria with hyposthenuria. In 2 of the 6 women, the above changes characterizing renal functions were combined with arterial hypertension. Thus, the recovery of patients from acute renal failure, which arose against the background of severe forms of preeclampsia and

3 – 5 EHZ is quite heterogeneous. Complete restoration of lost We did not detect any renal function in any case after 4-5 years. Over 55% of such women by 4-5 years achieve normal values of electrolytes, nitrogenous wastes and acid-base balance in the blood, with preserved polyuria, hyposthenuria and subnormal values of KF and KR. In 3 (37.5%) of them, normalization of the concentration function of the kidneys occurs due to a compensated increase in arterial pressure. In over 40% of such women, transition from acute renal failure to chronic renal failure is noted with slightly elevated nitrogenous wastes in the blood, subcompensated metabolic acidosis, polyuria, hyposthenuria. Over 30% of them have potential arterial hypertension. The layering of negative factors during childbirth against the background of functional and organic changes in the kidneys caused by preeclampsia and anemia leads to deeper disturbances of the renal parenchyma, affects the speed and possibility of restoring their physiological functions, which requires a solution to the issue in favor of absolute methods of contraception - DHS.

Priority areas in the prevention of acute renal failure of obstetric etiology in the conditions of the negative impact of the external environment of the Aral Sea region are: the fight against anemia, and active medical examination of girls and women of childbearing age in terms of timely detection and treatment of EHZ. All of the above should contribute to a decrease in the incidence of acute renal failure caused by pathology of pregnancy and childbirth, and a decrease in maternal mortality.

LIST OF REFERENCES:

1. Bakhritdinova F.A., Mirrakhimova S.Sh., Saliev Y.M. Oripov O.I., Namazov A.S. "The influence of the environmental situation in the Aral Sea region on the development of ophthalmopathology" / Point of view east - west. Ufa. No.4 2018.
2. Hypertensive disorders during pregnancy, childbirth and the postpartum period. Preeclampsia. Eclampsia. Clinical guidelines (Treatment protocol). /M., 2016; 73 pp.
3. Ibraeva L.K. Ranking of data on presumably eco-dependent diseases in the Aral Sea region //Medicine and Ecology. 2016; No. 3
4. Kozlovskaya NL, Merkusheva LI, Kirsanova TV, et al. The influence of imbalance of placental angiogenesis factors on clinical manifestations of "early" and "timely" preeclampsia. //Nephrology and Dialysis 2013;15(3):206-215.

Entered 20.12.2024