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COMPARATIVE CHARACTERISTICS OF MODERN METHODS OF SAMPLING FROM ANIMAL CARCASSES

State Research Institute of Laboratory Diagnosis and Veterinary-sanitary Examination,
National University of Life and Environmental Sciences of Ukraine, Kyiv

A comparative analysis of modern methods of sampling animal carcasses was conducted. The results of microbiological examination of samples collected using destructive and nondestructive methods were studied, particularly their advantages and disadvantages.

Keywords: meat, sampling methods and microbiological parameters.

The goal was to conduct a comparative analysis of modern methods of sampling animal carcasses for microbiological studies.

Material and methods. The studies were conducted at the department of veterinary-sanitary examination of the Faculty of Veterinary Medicine, National University of Life and Environmental Sciences of Ukraine, State Research Institute for laboratory diagnosis and veterinary-sanitary examination and on the basis of Yenakiyevo slaughterhouses and Zhytomyr.

The material for the research were half-carcasses of cattle aged 24 to 36 months. They were kept in the industrial refrigeration chamber at a temperature of 0 – 1°C.

We investigated the sites most likely to have high levels of contamination. The area of each sample was at least 100 cm² in total area of sampling from one carcass 400 cm².

Microbiological studies were performed by standard methods.

The research results. The results of studies comparing destructive and nondestructive methods for sampling from carcasses of cattle are listed in the table.
Modern scientific research and their practical application.

Comparative characteristics of destructive and nondestructive sampling, \( M \pm m, n = 28 \)

<table>
<thead>
<tr>
<th>The method of sampling</th>
<th>Enterobacteriaceae, ( \text{CFU} \times 10^5/\text{sm}^2 )</th>
<th>MAFAnM, ( \text{CFU} \times 10^3/\text{sm}^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-destructive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With the use of wet and dry swabs</td>
<td>55,5±0,50**</td>
<td>36,5±0,38***</td>
</tr>
<tr>
<td>With the use of sponge</td>
<td>66,0±0,66***</td>
<td>34,4±1,11*</td>
</tr>
<tr>
<td>With the use of gauze</td>
<td>64,3±1,61**</td>
<td>36,8±0,18***</td>
</tr>
<tr>
<td>Destructive</td>
<td>58,2±0,40</td>
<td>31,7±0,28</td>
</tr>
</tbody>
</table>

Notice. * \( P <0.5 \), ** \( P <0.01 \), *** \( P <0.001 \) – compared with the destructive method.

The data presented in the table indicate that the application non-destructive and destructive sampling methods specific differences in contamination of meat mascara was not observed. When using these methods would not have been detected bacteria of the family Enterobacteriaceae and MAFAnM in the deep layers of meat carcasses and Salmonella in the study of surface and deep layers of the meat.

So to select a single method as best one can not, and should only talk about their advantages and disadvantages, and only choose a particular method depends on the specific production conditions.

According to the results of our studies, the advantage of the destructive methods is that the cut surface tissues of the carcass makes it possible to collect all the bacteria found in the selected area. Repeatability and reproducibility of destructive methods is less volatile, as when using non-destructive sampling methods there are significant deviations related to the variability of the operator.

The disadvantage of destructive methods is an adverse effect on the integrity of the ink, quite naturally limits their use. The destruction of tissue resulting in damage to the carcass can be commercially unacceptable. Destructive sampling method involved a small section of the carcass can lead to significant errors when microbial contamination is low and heterogeneous distributed or when there are pathogens that
can be concentrated only in limited areas. Non-destructive methods allow an assessment of large areas of the carcass.

CID: J21204-779

Saveljeva I.V.

TO QUESTION ABOUT PROGNOSTICATION OF PLACENTA INSUFFICIENCY FOR PREGNANT WITH METABOLIC SYNDROME

Omsk state medical academy

Frequency of origin of placenta insufficiency (PI) is studied for pregnant with a metabolic syndrome (MS). It is found out that more often develops for pregnant with the low level of factor of height of placenta in the serum of blood. The inspection of patients is offered with MS for determination of level of factor of height of placenta in I trimester with the purpose of the timely beginning of prophylactic measures assisting birth healthy new-born.

Keywords: pregnancy, metabolic syndrome, factor of height of placenta, placenta insufficiency.

Research of flow and ends of pregnancy and luing-ins in the conditions of extragenital pathology for a mother still receives the intent study of all directions of modern medicine. Attention of practical doctors attracts a metabolic syndrome (MS) all more often, because, from data of different authors, this disease meets at a 25-45% population of the industrially developed countries, has wide distribution among the persons of young reproductive age [1, 3, 4, 7, 8]. Researches of the last years all more often expose heavy gestational complications at MS, that badly respond to treatment, negatively affect on a fetation and new-born, promote the indexes of perinatal morbidity and death rate [7, 8].

Presently all more researchers consider time of forming of basis of heavy gestational complications the moment of migration of cytotrofoblast (when braking of migration of trofoblast is in the spiral arteries of uterus, and insufficiency of the
second wave of invasion of cytotrofoblast is formed) [2]. The special attention is in this connection deserved by the placenta factor of height of PlGF, that is one of major regulators of forming of placenta and her vascularization [5, 9, 10].

The aim of the real research was a study of absolute indexes of PlGF for pregnant with a metabolic syndrome for forming of high-risk groups on the origin of placenta insufficiency.

**Material and research methods**

89 is inspected pregnant with MS. The criteria of including of pregnant in research were determined in obedience to classification of WHO [11]. A control group was made by 25 healthy pregnant. Conducted all patients general examination, including the parameters of height, body weight, the index of Quetele (attitude of body weight toward a height in $m^2$) was calculated, here the increase of body weight for pregnancy was not taken into account. The lipid spectrum of blood was determined, for the calculation of index of Caro (relation of concentration of glucose in blood to the level of insulin) determined the level of glucose and insulin in plasma of blood. With the purpose of measuring of level of human PlGF (pg/ml) the immunological method of Quantikine Human PlGF, was executed in the serum of blood of pregnant in I trimester in a term 8-9 weeks.

**Research results and discussion**

At the analysis of levels of human PlGF in the serum of blood of pregnant of I and II of groups appeared, that for pregnant with MS level of P1GF for certain below ($p<0,01$) by comparison to a control group. To our opinion, this fact can testify to violation of processes of invasion of chorion and forming of PI of the second wave of invasion of trofoblast in the conditions of low level of PlGF in I trimester of pregnancy.

On the basis of the educed levels of research PlGF a basic group was divided into two sub-groups: IА - with the high level of PlGF(n=26; Me 197,8 pg/ml; IQS 128,7-303,2 pg/ml) and IБ - with the low level of PlGF (n=63; Me 60,6 pg/ml; IQS 22,9-80,0 pg/ml). In control group level of PlGF was considerably higher: Me 251 pg/ml; IQS 198,0-321,0 pg/ml. According to our data, the critical level of PlGF in the
prognosis of development is his index below 100 pg/ml. From 89 cases for 63 (70,8 %) women with MS was clinically diagnosed by PI. The syndrome of delay of fetation is educed for a 51 (57,3 %) patient with MS. At 27 (30,3 %) pregnant with MS the decline of fruit-placenta blood stream took place. 28 (31,5%) pregnant with MS had a hypoxia of fetal. It is not fixed in the group of control of symptoms of placenta insufficiency.

The most new-born from mothers with MS, had body of a 2600,0-3200,0 g (below in comparison with the analogical index of control group on 13%) weight. Swingeing majority of new-born basic group (80,1%) at an estimation on the scale of Apgar had in the 1th minute 7 points and below, from them 22,2 % in the 5th minute had also a subzero estimation on Apgar. In a grave condition were born 4 new-born. Weight of their state was conditioned in three cases - prematurely bornness (pre-schedule delivery in connection with the presence of heavy preeclampsia for a mother) and in one case - by the making progress hypoxia of fruit in luing-ins. At 45 (50,6 %) new-born from mothers with MS the syndromes of ischemic defeat of the central nervous system predominate in an early neonatal period.

The obtained data testify that MS is an enhanceable risk of perinatal morbidity factor. To the planned pregnancy of women with MS it is expedient to advise an accoucheur-gynaecologist jointly with endocrinology with the purpose of exposure and correction of hyperpiesis and violations of carbohydrate exchange. During pregnancy to the patients with MS determination of level of PlGF is needed in I trimester with the purpose of prognostication of development of PI and early realization of the prophylactic courses sent to birth healthy new-born and described in our previous researches [6].

Literature:


IDENTIFICATION OF THE AMYLOID-LIKE DEPOSITS IN THE ORAL CAVITY OF PATIENTS WITH GENERALISED PERIODONTITIS AND CARDIOVASCULAR DISEASES

I.P. Pavlov Saint Petersburg State Medical University, Saint-Petersburg, Russia; V.A. Almazov Heart, Blood and Endocrinology Center, Saint-Petersburg, Russia.

Abstract. Congo-positive amyloid-like deposits were found in the oral mucosa of 58.3% of patients with inflammatory periodontal disease combined with cardiovascular diseases complicated by congestive heart failure. In 53.1% of cases Congo-positive amyloid-like deposits in the oral mucosa were associated with severe generalised periodontitis. Among patients with congestive heart failure in 63.5% of cases Congo-positive amyloid-like deposits in the oral mucosa were detected in patients with the metabolic syndrome.

Key words: oral mucosa, generalized periodontitis, amyloid-like deposits, chronic heart failure.

The term «amyloidosis» incorporates a heterogeneous group of diseases in which extracellular deposition of the insoluble fibrillar protein called amyloid disrupts normal function of organs and tissues [3]. There are systemic and local forms of the amyloidosis. Systemic amyloidosis is characterized by generalised involvement of organs and tissues and has pronounced clinical features while local amyloid deposition may independently occur in every organ and/or tissue and rarely have clinical manifestations [12].

Amyloidosis can be a genetically determined disease, idiopathic process [7] or develop secondary on the background of the chronic diseases associated with systemic inflammatory reaction [13].
It is considered that local amyloidosis is a rare condition, and therefore its causes remain unknown. The local amyloidosis of the tongue [10], palate [16], floor of the oral cavity [15], maxillary sinus [6], mandibular gland [11] and other organs of the oral cavity is described.

It is reported that 50.0% of patients with periodontal disease have amyloid deposits in their gingiva. Amyloid deposits can be detected even in macroscopically unchanged gingiva [5]. There was found a relationship between periodontal status of the patient and deposition of the amyloid protein P. In the gingiva biopsies taken from patients with chronic periodontitis were found Congo-positive amyloid-like structures composed of light chains of immunoglobulins [14].

The aim of this study was to evaluate the prevalence of Congo-positive amyloid-like deposits in the oral mucosa in patients with inflammatory periodontal disease combined with cardiovascular diseases complicated by congestive heart failure (CHF).

Materials and methods.

There were examined 103 patients aged 32-76 years with cardiovascular diseases complicated by CHF I-IV NYHA functional class. CHF was diagnosed according to National Guidelines for the Diagnosis and Management of Heart Failure (3ed Edition) of Russian Society of Cardiology of Russian Federation and Russian Society of Heart Failure [2], and according to ACCF/AHA Guidelines for the Diagnosis and Management of Heart Failure in Adults [8]. The oral mucosa biopsy (cheek and gingiva) was performed for differentiated diagnosis with systemic forms of amyloidosis by a standard technique [1]. Oral mucosa samples were stained with hematoxylin and eosin, Congo red, van Gison and Schiff reaction; stained Congo red samples were viewed in a polar light. The immunohistochemical reactions were performed with κ and λ antibodies, SAP, A-amylloid, prealbumin, P-amylloid (DakoCytomation, CA, USA). Subcutaneous fat biopsies, anterior abdominal skin wall flap, autopsy material served as a control results. A genetic analysis was conducted in the Institute of Experimental Medicine (Saint-Petersburg, Russia) to exclude transthyretin defect.
A dental investigation of the patients with cardiovascular diseases complicated by CHF included assessment of hygiene and periodontal indexes and panoramic X-ray.

The statistical analysis of the investigation findings was performed using both parametric and nonparametric techniques with the Statistica 6.0, StatSoft Inc. software package. After verifying the data for normal distribution by Student t-test the data were compared by U-Mann-Whitney test. The critical level of reliability of the statistical null hypothesis (no significant differences or factor influences) assumed to be equal 0.05.

Results.

Congo-positive deposits with a birefringence effect in the polar light were found in the oral mucosa of 73.6% samples taken from patients with cardiovascular diseases complicated by CHF. Systemic amyloidosis was confirmed in 15.3% clinical cases. AL-amyloidosis was diagnosed in 9.3% of patients in virtue of imbalance in variable regions of light-chain monoclonal immunoglobulins (lambda to kappa ratio 6:1). A senile form of amyloidosis (SAA-) was confirmed in 4.0% of cases in virtue of immunohistochemical analysis with antibodies to prealbumin. A genetic transthyretin amyloidosis was found in 2.0% of patients (heterozygote Val30Met).

The additional examination denied systemic forms of amyloidosis in 58.3% of patients with Congo-positive amyloid-like deposits in the oral mucosa. Among patients with congestive heart failure in 63.5% of cases Congo-positive amyloid-like deposits in the oral mucosa were detected in patients with the metabolic syndrome. In 36.5% of patients were diagnosed coronary artery disease, different phenotypes of cardiomyopathies and other CHF etiology.

Dental investigation revealed a poor oral hygiene in patients with cardiovascular diseases complicated by CHF: Fedorov-Volodkina hygiene index was higher than 2.8 points, Green-Vermillion hygiene index was higher than 2.6 points.

Severe inflammatory periodontal conditions were predominantly diagnosed in patients with cardiovascular diseases complicated by CHF (table. 1). In 53.1% of cases Congo-positive amyloid-like deposits in the oral mucosa were associated with
severe generalised periodontitis. Among patients with congestive heart failure severe periodontitis was diagnosed in 81.8% of patients with metabolic syndrome that is consistent with other data indicating more severe periodontal disease in patients with metabolic syndrome [4; 9].

Table 1

A relationship between the prevalence of Congo-positive amyloid-like deposits in the oral mucosa of patients with cardiovascular diseases and the periodontal diagnosis

<table>
<thead>
<tr>
<th>Periodontal diagnosis</th>
<th>Congo-positive amyloid-like deposits in the oral mucosa samples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>detected</td>
</tr>
<tr>
<td>Moderate chronic generalised periodontitis</td>
<td>14.4%</td>
</tr>
<tr>
<td>Severe chronic generalised periodontitis</td>
<td>53.1%</td>
</tr>
<tr>
<td>Periodontal disease of dystrophic origin</td>
<td>1.3%</td>
</tr>
<tr>
<td>Total</td>
<td>68.8%</td>
</tr>
</tbody>
</table>

Periodontal examination revealed that patients with Congo-positive amyloid-like deposits in the oral mucosa had deeper periodontal pockets than patients with negative histological data (6.62 mm vs 4.13 mm, p<0.05). A similar relationship was found for the Russell Periodontal Index (5.43 vs 3.97, p<0.05) and Ramfjord Periodontal Disease Index (4.96 vs 3.57, p<0.05). Furthermore gingival bleeding while probing was more common in patients with Congo-positive amyloid-like deposits in the oral mucosa (76.0% vs 55.6%), however, the difference between the Papilla Bleeding Index (1.53 vs 0.99, p>0.05) and the Sulcus Bleeding Index (1.22 vs 0.71, p>0.05) in patients with Congo-positive amyloid-like deposits in the oral mucosa and patients without such deposits in the oral mucosa was not significant.
Histological investigation detected in the oral mucosa on the background of chronic inflammatory process a frank inflammatory infiltrate presented by lymphocytes, macrophages, plasmatic cells (Figure 1). The macrophages dominated in the infiltrate. Amyloid-like deposits looked as a small diffuse deposits sited along collagen fibers. The prevalence of Congo-positive amyloid-like deposits was higher in the gingival biopsies than in the cheek biopsies. Systemic amyloidosis was diagnosed only in the cheek samples by the immunohistochemical analysis. Immunohistochemical analysis confirmed the presence of amyloid-like structures with P-component in the gingiva samples that did not react with the available antibodies to precursor proteins.

Figure 1. «Congo-positive amyloid-like deposits in the oral mucosa of patient with cardiovascular disease complicated by congestive heart failure. Congo red staining»

The complex dental investigation was also performed to the 17 years old patient with atrial supraventricular focus tachycardia who underwent examination in a specialized cardiology center to determine the cause of rhythm disturbances. The gingiva sample was taken in order to clarify the primary form of cardiomyopathy. The immunochemical analysis of the gingival sample detected amyloid deposits, however they were not found in endocardial biopsy and subcutaneous adipose tissue biopsy. Dental investigation confirmed that young patient had healthy periodontal tissues (figure 2 and 3). It was only detected a brown color pigmentation of the gingiva that was not related to race.
Discussion.

The results of the investigation indicate that prevalence of Congo-positive amyloid-like deposits in the oral mucosa in patients with inflammatory periodontal disease combined with cardiovascular diseases is approximately 60.0%. Among patients with congestive heart failure in 63.5% of cases Congo-positive amyloid-like deposits in the oral mucosa were detected in patients with the metabolic syndrome.

The high percent of association of generalized periodontitis and a Congo-positive amyloid-like deposits in the oral mucosa suggests that chronic inflammation of the periodontal tissues can serve as a trigger for local amyloid deposition in oral cavity of patients with cardiovascular diseases complicated by CHF. In this regard the
The diagnostic value of the oral biopsy for confirmation of systemic organ damage by amyloid deposits is questionable. It is recommended a dental investigation of patients suspected in systemic amyloidosis before oral biopsy sampling to unveil chronic infection in the oral cavity and assessment of risks for local deposition of amyloid-like structures in the oral mucosa.

The clinical case of 17 years old patient with atrial supraventricular focus tachycardia indicates that local amyloid deposition in oral mucosa without significant clinical signs can be detected even in young patients without periodontal conditions.

Conclusions:

1. Local deposition of Congo-positive amyloid-like structures in the oral cavity is common, course without significant clinical signs and can be diagnosed in young patients without heart failure syndrome.

2. Identification of Congo-positive amyloid-like deposits in the oral mucosa of patients with cardiovascular diseases complicated by CHF frequently is not associated with systemic forms of amyloidosis and, however, it could not be explained in all cases by a local amyloidosis of the oral tissues.

3. Patients with cardiovascular diseases complicated by congestive heart failure have a high prevalence of inflammatory periodontal diseases with severe destructive component.

4. Patients with metabolic syndrome and associated severe generalised periodontitis are at increased risk of local deposition of Congo-positive amyloid-like structures in the oral cavity.

References:


Modern scientific research and their practical application. Moscow: Medicine, 1995. — 688 p.


An examination and survey of 73 female students from 15 to 18 years based on technical High School and secondary school in Novosibirsk. The girls - teenagers revealed a high level of somatic pathology, intestinal dysbiosis, and chronic inflammatory diseases of the pelvic organs.

Keywords: girls - teenagers, physical health, intestinal dysbiosis, chronic inflammatory disease of the pelvic organs.

Introduction. Liquid Probiotics «Biovestin» - is a product of microbial origin. It is obtained by culturing the basic human symbionts - bifidobacteria and lactobacillus. The bacteria are cultivated in bioreactors, in a special environment based on cow's milk. "Biovestin" was developed and produced the Novosibirsk scientific-production firm "Bio-West." Production started in 1995 [1,2,3].

Appointment of liquid probiotics.
Liquid Probiotics are intended to normalize and protect the human intestinal microbiocenoses from adverse influences such as malnutrition, bacterial infection, antibiotics and other antimicrobial agents, the state of stressful [1,2,4,5,6].

The appearance and composition.

In appearance, liquid probiotics production company "Bio-West" is a milky emulsion from beige to brown.

Packaging - glass, hermetically sealed vials capacity of 6, 12 and 50 ml. The most common packaging - bottles of 12 ml, packed in 7 pieces in a cardboard box with an attached plastic Corex (bottle holder). Liquid probiotics in addition to living organisms - human symbionts - bifidobacteria and lactobacilli contain a high concentration of metabolic products of bacteria: organic acids, bacteriocins and other useful and physiological for the human body substances. In addition, liquid probiotics contain substances that are bifidogenic factors that contribute to the development of its own normal microflora of humans [4,5,6]. The concentration (titer) of living organisms in preparations of very high - up to 1,000 of living microbial cells in 1 ml. Aseptic conditions of production and internal quality standards adopted in the production of "Bio-West," can work to ensure that the drugs do not contain extraneous microorganisms. That is, inside the vial contains only pure cultures of bifidobacteria - and lactobacilli. Since bifidobacteria - anaerobic microorganisms and do not live in the presence of oxygen, in preparations containing dissolved carbon dioxide, which protects bifidobacteria from oxygen exposure. Upon heating, the vial containing the drug, which releases carbon dioxide, so at the opening of the bottle issometimes possible to cotton and foaming, which is a normal phenomenon [1,3].

Shelf life.

Terms and Conditions of storage of liquid probiotics are caused by the presence of active bifidobacteria and lactobacillus. Products should be stored at temperatures between +20 and +60 °C. At this temperature, the growth of beneficial bacteria, slows down and the titer of microorganisms remains high for 3 or more months from the date of manufacture. With increasing temperature up to room temperature and above, the bacteria become active and produce metabolites that alter the biochemical
properties of the medium and eventually leads to a decrease in the concentration of living cells [1,3].

Shelf life of "Biovestin" - 2.5 months. Concentrated bifidobacteria, biologically active food supplement, a certificate of state registration number 77.99.23.3.U.6098.6.05 from 02.06.2005. The therapeutic effect of the drug contained therein is determined to live an active form of Bifidobacterium Bifidobacterium adolescentis MC-42, the products of their metabolism and bifidogenic factors.

Research methods. The preparation was tested on 53 adolescent girls. The control group consisted of 20 adolescents of the same age and sex (Table 1).

Table 1

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>A main group</th>
<th>A control group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intestinal dysbiosis</td>
<td>53</td>
<td>20</td>
</tr>
<tr>
<td>Chronic inflammatory diseases of</td>
<td>53</td>
<td>20</td>
</tr>
<tr>
<td>the pelvic organs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic diseases of upper</td>
<td>53</td>
<td>20</td>
</tr>
<tr>
<td>respiratory tract</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acne</td>
<td>53</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>20</td>
</tr>
</tbody>
</table>

With informed consent and permission of the Ethics Committee, examined 73 girls puberty. All adolescents were observed following studies: history taking, examination of the pediatrician, gynecologist, ultrasound of the abdomen, pelvic ultrasound, a study of fecal bacteria overgrowth, using polymerase chain reaction (PCR), herpes viruses have been identified I-II type, of human papilloma viruses (16.18 type), urogenital chlamydiosis and ureaplasmosis, content seeding was
performed posterior vaginal fornix was investigated microscopy of smears stained by Gram.

The preparation "Biovestin" administered to 6 ml, 2 times a day for 30 minutes before eating. The course was 1 month.

Results and discussion. All of the girls surveyed had been diagnosed intestinal dysbiosis varying degrees of severity. The change of intestinal microflora, which are characterized by a decrease of 100% of Escherichia coli, bifidobacteria in 27% of cases, lactobacilli and enterococci in 20%, and Klebsiella, and enterobacter was detected in 13%. Bacteriological and PCR study identified various types of bacterial and viral association: human papillomavirus (16,18 types), candida albicans, trichomonas vaginalis, chlamidia trachomatis, ureaplazma species, herpes simplex virus (I, II type), E.coli, enterococcus faecalis, klebsiella pneumonia, St. Saprophyticus et al., found facultative anaerobic Lactobacillus, bifidobacterium spp.

After the course, "Biovestin" core group of teenagers in the bacteriological examination of faecal coliform was an increase to 60%, reduced the number of conditional - pathogenic flora. In the study of the vaginal secretions of 100% of the cases detected facultative lactobacilli. Moreover, the increased frequency of bifidobacteria, which are assessed on the one hand as representatives of normal flora and on the other hand, as a compensatory factor in the absence or inhibition of lactic acid bacteria. The number of pathogenic flora has decreased, anaerobic, coccus and diplococcus microflora was not found.

Assessment of satisfaction with the results of patient treatment was carried out on a scale of Integrative Medicine Patient Satisfaction Scale - IMPSS and consisted of five items:

- Fully satisfied
- Satisfied
- Am neutral- Not satisfied
- Extremely dissatisfied
In analyzing the questionnaires, out of 53 girls - teen test group, 27.3% answered - very satisfied, 42.4% - satisfied, 30.3% - m neutral, 0% - is not satisfied, and 0% - extremely satisfied.

Evaluation of treatment results was made a doctor on a scale Intergrative Medicine Outcome Scale - IMOS and consisted of five items:

- Full recovery
- A significant improvement
- Moderate or slight improvement
- No change
- The deterioration of

In analyzing the questionnaires, out of 53 teenage girls of the experimental group, 18% indicated - a full recovery, 70% - a significant improvement, 9% - moderate or slight improvement, 3% - no change.

Thus, the study preparation "Biovestin" had a positive impact on the dynamics of the underlying disease. Tolerance was good.

Analysis of data from clinical and laboratory studies of adolescents who received and did not receive exchange treatment preparation "Biovestin" led to the following conclusions:

1. The drug has no adverse biological effects.
2. Treatment this drug leads to a distinct clinical improvement and better health.
3. The drug has a high degree of antagonistic activity against microbes conditionally (hemolytic strains of Escherichia coli, Klebsiella, Staphylococcus aureus)
4. The drug should be used during the correction of intestinal dysbiosis and vagina in order to suppress pathogenic and conditionally - pathogenic flora.
5. The drug is effective, reducing the inner ecology of the host.

Conclusion. Clinical and laboratory studies suggest domestic product "Biovestin" preparation of choice for initial correction of dysbiosis in patients-teenagers with somatic, ENT - diseases, gastroenterological diseases, and chronic pelvic organs.
Literature:


CID: J21204-771

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Bachieva Asiyat Ruslanovna.

Bronchopulmonary dysplasia - Progress result of modern medicine.

State Educational Establishment of the VPO KubGMU Health Ministry of Russia.

Keywords: Bronchopulmonary dysplasia, neonatal disease, evaluation of the effectiveness of remedial actions.

According to official statistics, respiratory diseases occupy a leading position in the structure of general morbidity of children and adolescents, considerably affecting the rates of infant mortality. It is well known that lung disease has its own particular age. It is an extremely important problem of Bronchopulmonary diseases affecting newborns. With the expanding capabilities of modern medicine, neonatology recent developments, improve the methods of intensive care and
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neonatal respiratory support increased survival of premature infants of extremely low-weight (<1000g) and very low birth weight (<1500g)

Despite all the advancements of medicine, the problem of formation in these patients chronic lung disease (CLD) is quite acute. Currently, the most common form of chronic lung disease in the newborn period is Bronchopulmonary dysplasia (BPD), which is often the cause of high mortality.

BPD - is a chronic disease polyetiology morphologically immature lung that develops mainly in very preterm children, as a result of intensive therapy of respiratory distress syndrome and / or pneumonia, manifested by the dependence of oxygen at 28 days of life and older, with BOS syndrome (BOS) and symptoms respiratory failure. In Russia’s near future it can be expected to increase in the incidence of BPD, celebrated in other developed countries. This is due to the transition of the Russian health recommended by the World Health Organization criteria for live births and stillbirths, which regulate the registration infants weighing 500g or more. Statistical data on BPD differs considerably between countries. It is believed that at the present stage of BPD occurs in 30% of neonates requiring mechanical ventilation. In Russia, data on the incidence of BPD is from 2.3% (Ivanovo) to 26.2% (Omsk).

Now days, in Krasnodar and the Krasnodar Territory there any official statistics on BPD. In connection with this research work started, which aims to analyze the incidence of BPD in Krasnodar, the assessment of children at the stage of disease, evaluation of the clinical course, the relationship of severity of BPD and gestational age, the principles of treatment in different hospitals of Krasnodar and the collection catamnesis and analysis of the outcome of this pathology. The material of the study is based on the history of diseases of the newborn: Regional Perinatal Center - Department of Pathology and preterm infants (PCC ONPN) Emergency Hospital - Department of preterm children (Emergency Care Hospital UNM) and the Perinatal Center of Branch - Department of infants with infectious patho-topology (FPZ OPN).
Until now, analyzed 45 medical records, including children with a gestational age <28 nedel - 13, children with gestational age 28-32 weeks - 27, children with gestational age> 32 weeks – 5

Children with extremely low birth weight accounted for - 29%, very low birth weight - 51%, low birth weight - 18% of normal body weight - 2%. We studied the following topics: antenatal prevention of respiratory distress syndrome, Apgar score, the introduction of surfactant, the duration of mechanical ventilation (ALV), including length of stay on mechanical ventilation with rigid parameters, the duration of NCPAP, oxygen concentration in the inspired air, receipt of systemic and inhaled glucocorticosteroids (GCS), presence of BOS, the use of Berodual, duration of oxygen-dependent, the severity of BPD, duration of hospital stay, the scheme of treatment of BPD in this department, the incidence of various forms of BPD.

The results are:
Just a PCC ONPN passed since the discovery of 410 children, of whom 230 premature, sick BPD 29 which is 12.6%. In the UNM Emergency Care Hospital for the year were 445 premature infants, including 22 children with BPD -4.9%. In the FPZ arrester for the year 346 children, 188 premature, 18 cases of BPD, 5.2%. In total 1201 children, 863 premature, BPD 69 cases - 5.7%

Of the 45 stories examined antenatal prevention of RDS was performed only in 5 cases (11%), the introduction of surfactant was 56%. Score of the children of the Apgar is as following: 1-3 points - 24%, 4-6 - 62% 7 or more - 14%. Average duration of mechanical ventilation was 10.7 days, and NCPAP 4.8 days, the concentration of O2 in the inspired air> 35% - 40% and <35% - 60%. Average duration of oxygen-47.8 days. BOS was detected in 40% of children. Systemic corticosteroids were introduced 8.9% of children, and inhaled corticosteroids was 95.5%, and inhaled corticosteroids were administered for an average of 26.4 days. The use of Berodual 91%. The average length of hospital stay 54.7 c / d

As the severity of BPD distribution was as follows: mild - 53.3%, average -
42.2%, severe-4.5%.
Classic BPD - 26.7%, the new BPD - 20% of BPD term - 4.4% undifferentiated BPD -48.9%.

Conclusions:
• The incidence of BPD in Krasnodar is 4.9-12.6%, which may indicate an underdiagnosis of the disease in some hospitals.
• Mostly mild course of BPD, severe forms are rare;
• The most common of BPD in children with a gestational age of 28 32ned that does not comply with current data.
• found no correlation between the presence of airflow obstruction syndrome and the appointment of inhaled bronchodilators (Berodual), as well as the severity of BPD and systemic steroid use, suggesting the absence of a differentiated approach to therapy.
• Reserve to reduce the incidence of BPD and improve its outcome should be a more rational management of BPD in the formative stages: the active use of antenatal prevention of RDS, early administration of surfactant, the improvement of respiratory therapy.
• In Krasnodar was not included in the daily practice of the division of BPD in the form

Work is continuing to follow-up analysis and evaluation of the outcome of BPD.

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A.A. Zalewsky, N.S. Gorbunov, Yu.A. Shekhovcova, A.N. Russkikh, A.D. Shabokha, O.V. Petukhova

OPERATIVE ACCESS TO KIDNEY WITHOUT DAMAGE OF LUMBAR AND INTERCOSTAL MUSCLES, VESSELS AND NERVES

Valentin Voyno-Yasenetsky’s Krasnoyarsk State Medical University
Summary: Description of operative access to the kidney in which skin, fatty layer, superficial fascia and the latissimus dorsi muscle together with sheets of own fascia dissected along its fibers above of meddle of XII rib on its length, the edges of the cut bred, bare a XII rib and dissect by circular milling cutter on a longitudinal axis to extensor muscle of the back, the fragments of rib conduct the dilator of cut, bare the cellulose of own retroperitoneum, it together with a bud remove layer by layer from ribs and diaphragm, take forward, bare the back surfaces of kidney, renal pelvis and overhead department of ureter, an operative reception is execute (nephrectomy; pielolitotomy; ureterolithotomy).

Key words: urology, the operative access to the kidney.

Introduction.

The introduction of new technologies in urology radically changed going near the choice of operative access to the kidney and ureter. A preference gives oneself up hi-tech and little invasion methods. However, much interference by the opened method did not lose the clinical meaningfulness. Operative interference by opened method is rotined the 24-25% to the patients with an urolithiasis [2]. The lacks of the known operative accesses to the kidney is a section of intercostal and infracostal muscles, damage of the adjacent nerves, paresis and relaxation of muscles of abdominal the press, his functional insolvency. More frequent these complications arise up at the repeated operations for patients with the recurrent form of urolithiasis, when operative access is executed with excision of old postoperative scars [2, 4].

Research purpose:

A search of operative access to the kidney with a less operating trauma and complications related to it.

Research tasks:

In an experiment on the dead bodies of people to develop operative access to the kidney without the transversal section of muscles and damage of intercostal and lumbar vessels and nerves;

To study the parameters of access on the method of A.Yu. Sozon-Yaroshevich and to estimate his fitness to application in surgical practice.
Materials and methods.

Operative access to the kidney and overhead department of ureter is exhaust on 27 dead bodies of people (17 sex of men and 10 sex of women). Age of research objects varied between 23 and by 72 years. Researches were conducted in standard position of object with a roller under small of back, with arcuated lower extremity of conditional healthy side and direct opposite extremity. Does the put task decide due to that a skin, hypodermic-fatty layer, superficial fascia and the latissimus dorsi muscle is dissected on motion its fibers through a middle XII ribs on his length.

Do the edges of cut conduct dilators and bare lateral arcs of X, XI, XII ribs. By a circular electric milling cutter (Diameter=3 cm) XII a rib being cut strictly on a longitudinal axis from an end to the outward edge of extensor muscle of the back together with to subject transversal fascia.

Aponeurotic sheaths of the external oblique, internal oblique and transverse abdominal muscles, fixed by the end of XII rib, cut along the cut. Fragments of the ribs and the edges cut by the aponeurosis diluted in hand with a hinged rack extender brackets covering the entire length of the fragments of the ribs. Under constraint staples there is a subperiosteum break of lower fragment of rib at the edge of extensor muscle of the back with angular displacement, opened forward. Periosteum and bunches back lower stair muscle stop a fragment from displacement on a width. Breeding of fragments of the XII rib opens the cellulose of own retroperitoneum. Removing layer by layer it from ribs and diaphragm and taking forward bare the back surface of kidney, renal pelvis and overhead department of ureter, unseal above them back paranefry and execute an operative reception (pelviolitotomy, ureterolithotomy, delete of kidney or adrenal gland). There is not a necessity to select from paranephric cellulose a kidney along the whole length as at lumbar accesses by Fedorov. The delete of kidney is begun with bandaging and crossing of ureter, will mobilize after, bandage oneself and cross blood kidney vessels between clamps. Is a retroperitoneum drained insurance tubular drainage under a mean of XII rib.

Is sewing up of wound begun with sewing together of the ideally compared fragments of XII rib by circular sutures (Fig. 1). Thus a needle is conducted strictly
on their outward edges, except the capture of the adjacent vessels and nerves. The
natural places of fixing of muscles by XII rib saved, integrity of vessels and nerves
saved too.

Ideal associated rib fragments fused callus, bypassing the stage of connective
calluses. If required reoperation for open-kidney XII edge can be re-cut without
damaging the adjacent muscles, vessels and nerves.

Fig. 1. Kind of injury after
dissection. XII rib fragments and
breeding.

Fig. 2. First sutures on
fragments of XII rib. Kind of XII rib
after sewing together of fragments.

Fig. 3. Multispiral computer tomogram of the XII rib after a section on the
longitudinal axis of sewing together of fragments on the stage of operative access
to the kidney. A shooter is specified on the XII rib.
The edges of the layered latissimus dorsi muscle, fascia and skin incisions are sewn single interrupted sutures.

A study of access parameters and compare them with satisfactory parameters on the Sozon-Yaroshevich showed the following results (Table 1).

**Comparison of the parameters of real-time access to the kidney with dissection XII rib along the longitudinal axis of the parameters recognized by the A.Yu. Sozonov-Yaroshevich as satisfactory (n = 27).**

<table>
<thead>
<tr>
<th>Parameter Description</th>
<th>Value at Research</th>
<th>Value by A.Yu. Sozonov-Yaroshevich</th>
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<tr>
<td>Depth of wound (cm)</td>
<td>6.49±0.11</td>
<td>No more than 8 cm</td>
</tr>
<tr>
<td>Angle of slope of axis of operating action (degrees)</td>
<td>87.4±0.42</td>
<td>75-90°</td>
</tr>
<tr>
<td>Corner of the operating operating under length of wound (degrees)</td>
<td>95.13±1.0</td>
<td>Nearer to 90°</td>
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<tr>
<td>Corner of the operating operating under the width of wound (degrees)</td>
<td>60.93±1.21</td>
<td>Not determined by A.Yu. Sozonov-Yaroshevich</td>
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The real operative access is applied in clinical practice at 5 patients with an urolithiasis, at one of them illness was recurrent. Concernments were localized in renal pelvis, were large and subject crushing little invasion pin or distance shock a wave method.

When accessing the kidney according by Fedorov cut the external and internal obloquies, the transverse muscle divorces along fibres, infracostal and ilio-hypogastric nerves are here damaged quite often. After exposure of the
retroperitoneal space a kidney is isolated from the paranefry along the whole length.
At access with the longitudinal section of the XII rib front paranefry substantially is not damaged.

**CONCLUSIONS.**

1. Operative access to the kidney with the longitudinal section of latissimus dorsi muscle and the XII rib is anatomically grounded and possesses parameters, sufficient for the successful lead through of operations on a kidney and overhead departments of the urinoexcretory system.

2. The offered operative access to the kidney eliminates the damage of intercostal and lumbar muscles, vessels and nerves.

3. Application of the offered operative access to the kidney at treatment of urology patients abbreviates the terms of their treatment and eliminates development of relaxation of muscles abdominal the press and postoperative lumbar hernia.

References:


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