

temperature. The effectiveness of treatment 48.9% - 44 examinees. Duration of pregnancy from 3 to 6 months.

Indicators for which the scheme was effective: Pr - 16.51 - 19.97 pmol / L, glikodelin 4.03 - 6.65 ng / ml, the blood flow in the spiral arteries of the uterus - IR - 0,39 - 0,43, SDO - 1.50 - 1.72.

4 (4.4%) women ovulation induction was carried out anti-oestrogenic drugs - clomiphene citrate was administered with an incremental increase in the daily dose of 50 mg in each subsequent cycle of up to 150-200 mg per day 5-9 of the menstrual cycle for 3-6 cycles.

The same way women with DG pregravid preparation should be carried out taking into account the functional activity of the ovaries and endometrium. The efficiency was expressed third embodiment, compared with the first ($p = 2,294$, $p < 0.05$) and the second ($p = 5,172$, $p < 0.001$).

References

1. Pregnancy and gynecological health in adolescents / edited by TS Bystritskoy, SS Tseluyko. - Rostov n / D: Phoenix, 2006. -256 C.
2. Gevorgyan, MA, Manukhina MA, IB Manukhin Reproductive function in patients with metabolic syndrome // Proceedings of the XI All-Russian Scientific Forum "Mother and Child". - M. - 2010. - S. 391.
3. Radzinsky VE, Orazmurad AA Early pregnancy, M.: Publishing Journal Status Presens, 2009. - 688.
4. Uvarov EV, Khashchenko EP Hypothalamic Dysfunction: etiopathogenesis and clinic (review) // Reproductive health of children and adolescents. - 2010. - № 1. - P.65-76.
5. Cani P.D., Amar J., Iglisias M.A. et al. Metabolic endotoxemia initiates obesity and insulin resistance // Diabetes. – 2007. – Vol. 56. – P. 1761-1772.
6. Ciechanowska M. et all. Effekt of stress on the expression of GnRH and GnRH-receptor (GnRH-R) genes in the preoptic area – hypothalamus and GnRH-R gene in the stalk/median eminence and anterior pituitary gland in ewes during follicular phase of the estrous cycle// ActaNeurobiol Exp. (Wars). – 2007.- Vol. 67. - №1 – P. 1-12.
7. Daousi C., DunnA.J.,FoyP.M. et al. Endocrine and neuroanatomic features associated with weight gain and obesity in adult patients with hypothalamic damage. Am J Med. – 2005. - Vol 118, №1. – P.45—50
8. Jakubowicz D.J., Essah P.A., Seppala M. et al. Reduced serum glycodelin and insulin-like growth factor-binding protein in women with polycystic ovary syndrome during first trimester of pregnancy. // J. Clin. Endocrinol. Metab. – 2004. – Vol.89, №2. – P. 833-839.
9. Kwintkiewicz J., Giudiece L.C. The interplay of insulin-like growth factors, gonadotropins, and endocrine disruptors in ovarian follicular development and function // Semin. Reprod. Med. – 2009. – Vol.27, №1. – P.43-51.

The analysis of conformity to standards chronic obstructive pulmonary disease's treatment in the outpatient setting

Zhuravskaya N.S., Shakirova O.V.

State Educational Institution of Higher Professional Education
“Pacific State Medical University of the Ministry of Public Health Russian Federation”, Russia,
Vladivostok, Ostryakov Avenue, 2 tel. 8(423)2639675, E-mail: zhuravskaya187@gmail.com

Abstract

The goal of research is to study therapeutic and pulmonary doctor's perception about etiology, pathogenesis and therapeutic approach of chronic obstructive pulmonary disease, to estimate the

level of conformity of treatment to contemporary recommendations, to analyze the effect of such factors as time passed from graduation and studying pharmacology, physiotherapy on doctors' level of knowledge.

Data and methods of research. The voluntary, anonymous survey of 50 doctors from Vladivostok's Municipal Polyclinics was conducted. They made box-checking of created list which contains the issues about etiology, pathogenesis and therapeutic approach of chronic obstructive pulmonary disease. Also post-hoc analysis of medical disposals was made by 132 archive medical treatment records of patients with moderate COPD disease.

Results of investigation. As a background medication therapy practically 30% of COPD's patients used medicines which were up to formulary system. More than 80% of COPD's patients didn't get rehabilitation treatment. The conformity of therapy quality and accumulated period of work, work place was not investigated. The conformity of therapy quality and physiotherapeutic knowledge of COPD was not studied too.

Conclusion. In common doctors assigned drugs to patients according to Federal program in 2/3 cases, so in 1/3 cases the reason for ineffective COPD's therapy is inefficient pharmacotherapy. By means of development educational programs for doctors it is necessary to implement COPD's therapy standards in health care practice.

Key words: Federal program, chronic obstructive pulmonary disease

Introduction. According to data of Pulmonology research institute of St.Petersburg's State Medical University named after acad. I.P. Pavlov COPD'S morbidity rate increased twofold for the last 15 years, so annual increase of new cases of disease in 5-7%. Nowadays COPD lies in 6th place among mortality factors in the world. Generally, death reasons are COPD complications (respiratory distress, pneumonia, pneumothorax, cardiac dysrhythmia, thrombembolia of main pulmonary artery. So high lethality rates make us to draw much attention to this severe health hazard and to do all the best to early COPD detection, trial of appropriate medical therapy, investigation the methods of exacerbation delimitation, implementation of preventive and educational programs both patients and doctors. Notwithstanding the fact that given figures are approximate and to be defined, the social economic significance of this common ailment is also practically assured. Together with rising medical social concern of the respiratory system diseases there is important problem of quality of pulmonology aid to people in Russia. A number of medical social reasons e.g. the rise of unrecorded citizens (displaced persons, military population, workers of loss-making enterprises and so on), incomplete diagnostic equipment of out-patient clinics do not allow to use the most accurate diagnostic measures for patients. The arrangements of primary and secondary COPD's prevention remain inappropriate because of lack of consolidated terminology, various data interpretation which was gathered while patient examining by means of clinic, roentgen and functional methods. It's also depend on several social hygienic characteristics, e.g. professional, sexual, aged, ethnic structure of investigated group of people, economic geographical peculiarities of location place, tobacco addiction, level of atmospheric contamination degree in industries and at the place of residence. Qualified delivery of health care to human population became impossible to arrange without such innovative healthcare technology as standardization of medical services and implementation formulary system, marketing researches. All above said technologies are ones of great important issues in reformatting healthcare system. Today international (European international union,1995) and national (Russia, USA, Australia)standards in COPD diagnostic and treatment are created. In 2004 the latest Federal COPD program was adopted. It contains the main principles concerning COPD which are up to date and suits for Russian health care system. According to the newest recommendations when there is stabile COPD progression the great role of curative treatment belongs to out-patient physicians, it also allows to get optimal treatment result using minimum costs. When there is a mild disease recrudescence it is necessary to change regular broncholytic therapy, moreover patients don't request medical assistance at all. When there is moderately severe disease recrudescence medical analysis of clinics and therapy

enhancement are needed. So there is no guarantee that the most contemporary recommendations will be used in practical health care.

The aim of our investigation is to study therapeutic and pulmonary doctor's perception about etiology, pathogenesis and therapeutic approach of chronic obstructive pulmonary disease, to estimate the level of conformity of treatment to contemporary recommendations, to analyze the effect of such factors as time passed from graduation and studying pharmacology, physiotherapy on doctors' level of knowledge.

Data and methods of research. The voluntary, anonymous survey of 50 doctors (table 1) from Vladivostok's Municipal Polyclinics was conducted. They made box-checking of created list which contains the issues about etiology, pathogenesis and therapeutic approach of chronic obstructive pulmonary disease. Also post-hoc analysis of medical disposals was made by 132 archive medical treatment records of patients with moderate COPD disease.

Table 1

Respondents' characteristic (scope=50)
(%) the percentage from the scope of all respondents

Profession			Studying Physiotherapy in University		Time passed from graduation the University		
General practitioner	Pulmonologist	Recreation therapist	Yes	No	Less than 5 years	5-10 years	More than 10 years
76	18	6	68	32	8	8	92

The estimation of knowledge level was conducted according to COPD's treatment standards and recommendations. During the research doctors' knowledge were evaluated by counting the scope of correct answers given to questions divided on 5 blocks: etiology, pathogenesis and COPD diagnostic, medication treatment when disease is stabile and while recrudescence, no medicine rehabilitation, medical ethics and deontology. Summing up the score which varies from 0 to 40, the respondents were divided on 4 groups according to knowledge level: less than 10 points is a very low level, 10-20 points- low level, 20-30 points- medium level, more than 30 points – high level.

To analyze another parameter the respondents were divided on groups according to the following characteristics: time which passed from graduation (less than 5 years ago, 5-10 years ago, more than 10 years ago) and the fact of studying physiotherapy. The evaluation of impact of given factors to level of knowledge about COPD was conducted while using logistic regression model.

Results of research. The characteristic of respondents groups of medical profession are listed in the table 1. The majority of pollees occupy the position of general practitioners (76%), almost everybody studied pharmacology (96%) and physiotherapy (less than 70%) in the university. The doctors graduated from university more than 10 years ago were prevalent.

The most respondents (nearly 96%) as the principle factor of COPD named tobacco smoking and genetic burden. But the effectiveness of antismoking program implementation checked only 10 % of doctors. More than half of respondents identified the rising relevance of viruses in COPD etiology. Just over 60 % of doctors were able to define the main symptoms which are required for establishing COPD diagnosis and general indications of differential exclusion of COPD and bronchial asthma. Only 45% of respondents were successful in classifying COPD's severity taking into consideration the index of external respiration function. Less than 20 % of respondents gave correct answers concerning etiology, pathogenesis and diagnostic of COPD, nearly 40% - partly correct. High level of knowledge about medicine therapeutic approach while stabile COPD progression and recurrence was shown by 16 % of respondents, medium level – 48%. Almost all respondents show high level of knowledge in medical ethic and deontology. More than 85 % of doctors got low and very low level of knowledge in the sphere of physiotherapeutic treatment.

Analysis of 132 case records of patients with COPD's medium severity which got follow-up care shows that 65 % of scope was unsatisfactory. One of the main disadvantages of the clinical recording was the incomplete description of case history (90%), complaints (33%) and data of patient's examination. Incorrect diagnosis statement were defined in 29 % of cases, inadequate treatment in 43%, lack of medical disposal of routine examination- in 56% and rehabilitation actions in 73%. It was understood that only 65% of doctors assigned to their patients bronchodilators of general groups – β 2-adrenostimulators and m-cholinoblockators (table 2). The analysis of case records shows that β 2-adrenostimulators (salmeterol, formoterol) were ordered for a long time to older patients with attended abnormality of cardio-vascular system. Sometimes m-cholinoblockators were ordered for less than 3 weeks so it was unnecessary concerned to pharmacodynamics. The advantages of m-cholinolytics were not considered so they have long term broncholytic effect. 26% of patients were assigned aminophylline per os to 400 mg per day as basic medicines. 30% of patients were assigned long-acting theophyllines without constant control of their blood level. That was wrong because of risk of side effects, low compliance and imperfect efficiency. In 32% of cases the benefits were given not a combination medication but high dose of mono-therapy. This fact increased the risk of side effects and constitutional reaction while using short- run b2-agonists. The survey has shown that the doctors prefer to assign free combinations of bronchodilators to fixed ones.

Table 2

Medicine therapy for COPD's of medium severity (ambulatory treatment)
(scope=132)

Pharmaceuticals	Percentage of prescription
M-anticholinergics short -run	27%
M-anticholinergics long -run	13%
β 2-agonists short -run	21%
β 2- agonists long -run	14%
Theophyllins	30%
Mucolytics	85%
Antihistamines	36%
Immunomodulators	26%
Vitamins	62%
No steroidal anti-inflammatory drugs	8%

Perhaps, it creates low effectiveness and raises the treatment costs. 34% of patients were assigned irrational medicine combinations (e.g. tiotropium bromide with other m-cholinoblockators). The great mistake was administration of hormonotherapy instead of combination of broncholytics while the bronchodilatory monotherapy in maximum dose was ineffective. In rare cases the tableted glucocorticoids were assigned for a long term. That's not permitted. One of the treatment troubles concerning to older patient care is the transportation of medicines to lung tissues. The patients elder 65 have low trainability, memory, finger strength and coordinator disturbance. That makes difficult to use respiratory devices. Therefore if the inspirators improperly use and it is necessary to assign high dose of bronchodilators the treatment with the help of nebulizer is recommended. Only 12 % of doctors followed these recommendations, its likely deal with bad equipment of health care institutions. 72% of patients got inappropriate empiric antibacterial treatment without testing the expectoration for antibiotics irritability 3-4 times per year. It's not corresponding to recommendations of Federal program that the antimicrobial chemical therapy shouldn't be a routine practice because of risk of germs resistance and bad drag reactions. As a drug of choice the amoxicillin and ampicillin were assigned. (table 3). In 21 % of cases as a drug of choice were gentamicin and biceptol. That fact does not correspond to up to date recommendations so it may caused severe drug reactions, moreover gentamicin don't have oral

form. Treating COPD's exacerbation by complex antibacterial therapy (ampicillin, gentamicin) were assigned 68% of patients, amoxicillin, erythromycin-42% of patients. In most cases (88%) antibacterial medication were taken per oral.

As for another group of medicines, 85% of patients were assigned mucolytics, however according to Federal program their efficiency isn't of high rate in COPD's treatment. The mucolytics indicate limited group of patients while viscous sputum caused. 62% of patients took vitamins, 36%-antihistamines, 26%- immunomodulators, 8%- no steroidal anti-inflammatory drugs. It's necessary to notice that the effectiveness of given group of medicines don't proved by clinical investigations. So the surveys in this sphere find out that antihistamines of 1 generation may increase bronchial obstruction and are not able to prevent allergy.

Table 3

Bactericide drugs of choice for COPD's exacerbation (ambulatory treatment)
(scope=132)

Preparations (drugs)	Percentage of prescription
Amoxicillin	36%
Ampicillin	25%
Erythromycin	18%
Gentamicin	12%
Biseptol	9%

Less than 20% of doctors recommended to their patients rehabilitation therapy based on no medicine ways of treatment. This phenomenon deals with the lack of knowledge in physiotherapy and rehabilitation

Conclusion

1. In common doctors assigned drugs to patients according to Federal program in 2/3 cases, so in 1/3 cases the reason for ineffective COPD's therapy is inefficient pharmacotherapy.
2. As a background medication therapy practically 30% of COPD's patients used medicines which were up to formulary system. That was wrong because of risk of side effects, low compliance and imperfect efficiency.
3. 80% of COPD's patients didn't get rehabilitation treatment.
4. The conformity of therapy quality and accumulated period of work, work place was not investigated.
5. By means of development educational programs for doctors it is necessary to implement COPD's therapy standards in health care practice.

Bibliography:

1. Barnes P., Kazuhiro I., Adcock I.M. Corticosteroid resistance in chronic obstructive pulmonary disease: inactivation of histone deacetylase. *Lancet*2004; 363; 731-733.
2. Celli B.R., MacNee W., and committee members. Standards for the diagnosis and treatment of patients with COPD: a summary of the ATS/ERS-position paper. *Eur. Respir. J.* 2004; 23; 932-946.
3. Chrischilles E., Gilden D., Kibisiak J. et al. Delivery of ipratropium and albuterol combination therapy for chronic obstructive pulmonary disease: effectiveness of a two-in-one versus separate inhalers. *Am. J. Manag. Care*2002; 8; 902-911.
4. Dahl R., Greefhorst L.A., Nowak D. et al. Inhaled formoterol dry powder versus ipratropium bromide in chronic obstructive pulmonary disease. *Am. J. Respir. Crit. Care Med.* 2001; 164; 778-784.
5. Finnelly J.P., Keeping I., Bullough I. et al. The effectiveness of outpatient pulmonary rehabilitation in chronic lung disease a randomized controlled trial. *Chest* 2001; 119; 1705-1710.

6. Ortega F., Toral J., Cejudo P. et al. Comparison of effects of strength and endurance training in patients with chronic obstructive pulmonary disease. *Am. J. Respir. Crit. Care Med.* 2002; 166; 669-674.
7. Pauwels R.A., Buist A.S., Calverley P.M., Jenkins C.R., Hurd S.S. The GOLD Scientific Committee. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. NHLBI/WHO Global Initiative for Chronic Obstructive Lung Disease (GOLD) Workshop summary. *Am. J. Respir. Crit. Care Med.* 2001; 163; 1256-1276.
8. Roche N., Lepage T., Bourcereau J. Guidelines versus clinical practice in the treatment of chronic obstructive pulmonary disease. *Eur. Respir. J.* 2001; 18; 903-908.

Ultrastructural characteristics of eosinophilic leukocytes contained in the respiratory tract in patients with bronchial asthma

Zinoviev S.V., Tseluyko S.S., Tkacheva S.I., Kozlova V.S.

Amur State Medical Academy, Blagoveshchensk, Russia

Abstracts: The ultrastructural study of eosinophilic leukocytes contained in the respiratory tract. Cellular elements of the respiratory system of patients with asthma were removed by bronchoalveolar lavage. Electron microscopy revealed degranulation of eosinophils performed by fragmentation of the cytoplasm. In damaged eosinophilic leukocytes in the respiratory tract in patients with bronchial asthma is missing nucleus fragmentation, there is hypertrophy of the nuclear matrix.

Key words: bronchoalveolar lavage, bronchial asthma, eosinophils

Eosinophils are cytological marker bronchial asthma and other hypersensitivity (5). The role of eosinophils in allergic considered from two perspectives. The first position takes into account the participation of eosinophils in the payment of diseases, it is based on the fact that eosinophils possess nuclear receptors glyukortikoidam involved in the adaptation syndrome. In the granules of eosinophilic leukocytes contained histaminase enzyme breaks down histamine and disposing of the enzyme arylsulfatase derivatives of arachidonic acid, found in the same zinc-containing granules. A number of authors draw attention to the pronounced degranulation of specific granules of eosinophilic leukocytes in the case of asthma (4, 6, 7, 8). According to these researchers eosinophil white blood cell involved in the transport complex of cytotoxic factors in the extracellular environment, which has anti-inflammatory in nature. Therefore, in the present moment remains unexplored role of eosinophils processes of compensation and decompensation of respiratory diseases.

The aim of the study was to study the ultrastructure of eosinophilic leukocytes contained in bronholavazhnoy fluid in patients with bronchial asthma.

Materials and methods

Study of bronchoalveolar lavage was carried out on the basis of the central research laboratory of the National Academy of Amur Amur regional hospital and one public hospital in the endoscopy department. We investigated bronchial lavage fluid (BAL) in 240 patients with bronchial asthma (BA). We studied bronchoalveolar lavage cells in 130 patients with endogenous and in 110 patients with combined (endogenous and exogenous), bronchial asthma, among them a severe there were 100 people, and with an average over 140 people. In its properties, it is identical to the so-called bronchoalveolar washout. The procedure begins with the injection of 10 ml of warm saline subsegmental bronchus of the middle lobe of the right lung during endoscopic study by the original