



David Tvildiani Medical University

**Abstracts of doctoral works protected in
David Tvildiani Medical University**

- I. **Gagua Tinatin (09-003-PhD)** - Primary dysmenorrhea: Epidemiology, comorbid peculiarities and quality of life in early reproductive age women population. Scientific Supervisor: **B. Tkeshelashvili** - Doctor of Medical Sciences, Associate Professor of Davit Tvildiani Medical University.
2013

Abstract

The primary dysmenorrhea is most common among the reproductive system in adolescence (Morrow C, et al., 2009). Its spreading wavers in large ranges from 20% to 95% (Latthe P, et al., 2006), which is an interest of scientific research. Primary dysmenorrhea is one of the most common biomedical problems, although its risk factors and patho-mechanisms

It is not precisely defined. Dysmenorrhea leads to a sharp deterioration in quality of life, a change of intellectual function, decreased labor ability, social, general and academic performance. It is known that the pain is an indicator of the physiological process of the body, showing the peripheral and central nervous system sensory state and emotional-cognitive experience (Dansie EJ, et al., 2013). Psychological and environmental factors influence its perception and disclosure (Turk DC, et al., 2011). Therefore, ethnic affiliation significantly determines the clinical picture of painful diseases (Sternbach R, 1974), while the culture - perception of the pain and the ways of its control. Primary dysmenorrhea cannot be considered only from painful positions. The whole complex of socioeconomic factors, deterioration of food quality, increasing psychoactive stressful factors in everyday life, technogenic loading, deterioration of ecological conditions and many other early reproductive age organisms are responsible for the formation of pathological conditions with adaptive reserve fading and chronization tendencies. The regulatory connections in the structure of stress effect are carried out by means of self-limitation of its intensity and duration, although self-limitation mechanisms are not characterized by absolute reliability-endogenous catecholamine and, most importantly, the mechanisms

in the long term existence may be out of order, as a result the effective adaptation remains untenable, the existence of violations of stress-causing homeostasis is prolonged and therefore stress and reaction is intensified. It is transformed into a pathogenic range of different diseases from the general adaptation circle (Дильман ВМ. 1982). Primary dysmenorrhoea multi-factoral genesis, non-existence of unified diagnostic criteria, lack of adequate research, incomplete informing of doctors and social workers of the field conditions the fact that the epidemiology and clinical peculiarities of primary dysmenorrhea in Georgia have not been studied and the fight against is not an issue of interest. All of the above-mentioned are put on the agenda of conducting a pharmaceutical epidemiological study.

The necessity of not only determining pathological prevalence and statistical data in the given population, but also the psychological, demographic, social-economic and environmental factors and the risk factors associated with the given disease. The presented scientific work serves to study and solve these problems.

- II **Shatirishvili Teona (09-025-PhD)** - Risk Factors of Convulsion Epileptic Status in Children Scientific Supervisor: Nana Tatishvili - Doctor of Medical Sciences, D. Tvildiani Medical University Full Professor, M. Iashvili Children's Central Hospital, Head of Neuroscience Department.
2014

Abstract

Convulsion Epileptic Status (CES) is one of the most frequent and difficult conditions of urgent neurology, which is not too rarely associated with disability and mortality. Although the CES solution has been significantly improved over the last three decades (the above-mentioned is explained by improvement of the performance of the treatment protocol and critical medicine department), the disability and mortality rate is still high. CES one of the major challenges is in poor countries where the wrong medical intervention, delayed hospitalization and high frequency of acute symptom etiology plays a key role. The majority of research in developing countries is retrospective. CES solution is reflected in only a few prospecting researches. Unfortunately, there is no sufficient information and evidence to help these countries develop treatment recommendations. Notwithstanding the positive steps in identifying CES's patho-physiological mechanisms, in the first decade of the 20th century and in the first decade of the 21st century, the clinical aspects of the condition and the adequate medicine helps us more in the prediction of further solution of CES. On the other hand, there are differences of opinions which risk factor: Age, gender, etiology or etiological group, duration of fainting fit, type of CES, EEG (electroencephalograph) data, etc. affects the solution. Just like there is no unequivocal answer to the question: CES's further death rate is conditioned by major etiology or CES itself defines the solution? Georgia, according to the World Bank, is a low middle income country that shares common socioeconomic problems with low-income countries. Individual factors, especially etiology, specialized protocol of treatment and the absence of second-line intravenous anti-inflammatory drugs (rectal diazepam, bacterial midzolam, intravenous lorazepam, Phenytoin, phenobarbital, which is essential for effective treatment of CES) can affect CES and its outcome. The CES treatment, which aims to reduce the duration of the convulsions, causing the reason of the treatment and side effects or complications are not studied.

- III. **Dznelashvili Nino (09-011-PhD)** - An epidermal growth factor in Blood serum and in mucous membrane epithelial cells of uterus body Prognostic significance of the receptor of epidermal growth factor in hyperplasia of the mucous membrane mucous membrane. Scientific Supervisors: **Dinara Kasradze** - Doctor of Medical Sciences, Professor and **Alexander Tavartkiladze** - Doctor of Medical Sciences, Professor
2015

Abstract

Endometrial hyperplasia is most frequently observed during the perimenopause period, when the normal balance of the menstrual cycle has been replaced by estrogen-progesterone; Endometrial hyperplasia may also develop in young women and teenagers, with whom the anovular cycle is frequent (Chen, Zhang, Feng et al., 2009; Robbins, Cotran, 2010). Endometrial hyperplasia is an endometrial, non-invasive proliferation of endometrium and is treated as a pre-cancerous condition for the development of endometrial carcinoma caused by estrogen excess (Chen, Zhang, Feng et al., 2009). Estrogen stimulates the epidermal growth factor (EGF, epidermal growth factor, Eng.) Synthesis in endometrium (Vlodavsky, Brown, Gospodarowich, 1978). The greater the estrogen content in the blood serum, the more is pronounced endometrial proliferation, the increased epidermal growth factor activity and the receptor expression of epidermal growth factor (Kurman, Kaminski, Norris, 1985). However, EGF can act independently and produce stimulation of epithelial cells (Atasoy, Bozdoğan, 2006). An important part of the researchers think that the epidermal

growth factor has a role in the development of hyperplasia processes in endometrium and the risk of developing a cancerous process (Wang, Konishi, Koshyama et al., 1993; Blaustein, Kurman, 2002; Wang, Pudney, Song et al., 2003; Ejskjaer, Sorensen, Poulsen et al., 2007; Ejskjaer, Sorensen, Poulsen et al., 2009; Santoro, 2010; A. Tavartkiladze, M. Kasradze, D. Kasradze, 2012). Also, there is an opinion that the EGF is not correlated with the level of malignancy of the tumor, the stage, the clinical outcome (Fuller, Seiden, Young, 2004). As for the EGF content in the blood serum, 3 the average rate is higher in endometrial carcinomas than in normal (Tomaszewski, Miturski, Kotarski, 1996). Proceeding from the above, EGF and its receptor relationships should have great importance in transforming the hyperplastic endometrium into neoplastic endometrium. In scientific literature, there is abundance of works related to the receptor of epidermal growth factor (EGFR, epidermal growth factor receptor, Eng.) receptor expression of epidermal growth factor in human hyperplasia endometrium. The researchers' data are often contradictory: If according to one part of the authors, EGFR is much more likely to appear in hyperplasia endometrium than in normal (Leone, Costantini, Gallo et al., 1993; Amezcua, Zheng, Muderspach et al., 1999; Wang, Pudney, Song et al., 2003; Citri, Yarden, 2006; Altieri, 2008; Koike, Sekine, Kamiya et al., 2008; Margulis, Lotan, Shariat, 2008), Some authors argue that the EGFR expression is the same in every condition (Gershtein, Bocharova, Ermilova et al., 2000). Also, according to some authors, the EGFR is more frequent in endometrial carcinoma than in hyperplasia (Nyholm, Nielsen, Ottesen, 1993). Part of authors argue opposite - that the receptor is revealed in endometrial hyperplasia in all cases, and in the carcinoma - in some cases (Niikura, Sasano, Matsunaga et al., 1995; Niikura, Sasano, Kaga et al., 1996). Some authors believe that the EGFR expression is higher in norm than in endometrial carcinomas (Niikura, Sasano, Matsunaga et al., 1995; Niikura, Sasano, Kaga et al., 1996; Miturski, Semczuk, Postawski, Jakowicki, 2000; Fuller, Seiden, Young, 2004; Santoro, 2010). Also, if a part of the authors believes that EGFR high expression is correlated with histologically low grade differentiation (Llorens, Bermejo, Salcedo et al., 1989; Brmelin, Zimmer, Sauerbrei et al., 1992; Scambia, Benedetti, Battaglia et al., 1992; Scambia, Benedetti, Ferrandina et al. 1994). Some of them believe that the EGFR expression is not related to the quality of malignancy, histological type, invasive (Nyholm, Nielsen, Ottesen, 1993; Scambia, Benedetti, Ferrandina et al., 1994; Miturski, Semczuk, Postawski, Jakowicki, 2000; Fuller, Seiden, Young, 2004). From scientific literature it is also known that when the epidermal growth factor in a number of tumors 4 receptors are positive, the solution is worse than when it is negative (Santoro, 2010; A. Tavartkiladze, M. Kasradze, D. Kasradze, 2012). Finally, most researchers believe that EGFR has a significant role in the development of hyperplasia processes and the risk of developing tumor processes (Wang, Konishi, Koshyama et al., 1993; Blaustein, Kurman, 2002; Wang, Pudney, Song et al., 2003; Ejskjaer, Sorensen, Poulsen et al., 2007; Ejskjaer, Sorensen, Poulsen et al., 2009; Santoro, 2010; A. Tavartkiladze, M. Kasradze, D. Kasradze, 2012). It should be noted that in studies of EGF-EGFR relations analysis (endometrial hyperplasia / neoplasia) is not available at all: - We have one work at hand, in which both EGFR and EGF are found in tissue - normal, hyperplastic and neoplastic endometrium, although the analysis of mutual correlation is not conducted; There is also no EGF content in the blood serum (Niikura, Sasano, Kaga et al., 1996); We have another work as well in which only EGF level in blood serum is defined in endometrial neoplasms and the discussion suggests that "EGF high content in blood serum and EGF-receptor in endometrial tissue is likely to increase the risk of carcinogenesis in endometrium" (Tomaszewski, Miturski, Kotarski, 1996). Also, there are no studies in the blood serum of EGF and endometrium in the EGFR expression relationship with antiproliferative or antineoplastic factors

- endometrial hyperplasia / neoplasia. We think that the relationship between the epidermal growth factor and its receptor relationship should have a special significance in evaluating the risk of endometrial hyperplasia; Also, we believe that determining the effects of the epidermal growth factor and its receptor risk of developing the tumor processes with the universal, anti-proliferation / anti-immune function Hormone melatonin will have more significance in estrogen-dependent endometrial carcinogenesis risk assessment; In addition, we believe that in determining the EGF-EGFR relations as well as their 5 ties with melatonin not only in endometrial hyperplasia, but in endometrial carcinomas, there will be a serious role in determining the significance of EGF and EGFR-to assess the precancerous risk of the uterus body.

- IV. **Mirtskhulava Veriko (09-024-PhD)** - Quantiflorine-TB gold test tone and skin tuberculin sampling importance in Tuberculosis nosocomial transmission Assessment and infection control measures in the introduction of Georgian medical Institutions. Scientific Supervisors: **Nino Bregvadze-Tabagari** - doctor of medical sciences, DTMU professor and Henry Bloomberg - Emory University Medical School and Rollins Public Health School professor.
2015

Abstract

After the collapse of the Soviet Union, tuberculosis has once again emerged in Georgia as a major public health problem. Despite the fact that in 2007-2013 the TB incidence decreased from 149 to 116, and prevalence from 226 to 163 to 100,000 per capita, tuberculosis epidemiological indicators in Georgia still remain alarming. Georgia is amongst the 27 countries with high risk of multi-resistant and morbidity of TB (MDR-TB). Multi-resistance means resistance at least towards isoniazid and rifampicin. Among the above-mentioned 27 countries in Georgia in 2013 was revealed one of the highest rates of prevalence of cases of suppressive tuberculosis (XDR-TB)(20%). Suppressive resistance means any fluorinolone and at least one of the injections of the second row medication (chapromycin, kanamizin or amikacin) resistance with multi-resistance. In Georgia, in 2013 MDR-TB prevalence in new cases was 11% and in cases treated 38%.

Until 2012, as well as in many other countries with high load of tuberculosis of Eastern Europe, tuberculosis was diagnosed and treated in the Tuberculosis National 4 Program (TEP) organized in the specialized phthisiatric network hospitals and outpatient medical institutions. Sometimes unidentified cases of tuberculosis or tuberculosis suspicious cases initially addressed to the primary Healthcare network medical institutions and later they turned up in specialized psychiatric network medical institutions. Currently, TB management is provided by non-specialized state and private providers in Georgia.

Recognized TB nosocomial transfer from patient to health care worker. The risk of nosocomial transmission of tuberculosis is high in medical institutions with high TB infection forms patients. Resistant strains against tuberculosis are a major threat to the health of the community, especially under the control of poor infections. Similarly, like other low-income countries, as well as medical institutions in Georgia, the control measures are imperfect of TB infection. TB infection control measures include: Administrative, engineering and personal protection measures, the most important of which are administrative measures. There is no routine screening program for latent tuberculosis for healthcare workers in Georgia. Only 5 ultraviolet lamps and respirators are available in specialized psychiatric medical centers.

In 2006, in specialized psychiatric network workers were revealed high prevalence of latent tuberculosis, and 77% of latent tuberculosis was diagnosed with two diagnostic tests [Quantiporen-Tb

Gold test in the tube (QFT-GIT) and skin Tuberculosis sample (kts)] at least one positive and 50% had positive results on both tests.

- V. **Chiokadze Shorena (09-020-PhD)** - The role of sexually transmitted diseases and their diagnostic importance in developing an autoimmune form of infertility. Scientific Supervisors: Vakhtang Meunargia - Doctor of Medicine, Professor of Microbiology and Immunology Department of David Tvildiani Medical University and Giorgi Galdava - Doctor of Medicine, Professor of the Faculty of Medicine of Ivane Javakhishvili Tbilisi State University, General Director of National Center Of Dermatology And Venereology.

2016

Abstract

The modern demographic situation in Georgia is quite acute and actual. Heavy economic conditions and unstable conditions created in the country reduced the birth rate to the crisis level. If in the 80s of the last century, 94 thousand children were born annually in Georgia, now the number of newborns is almost halved. Birth rate totalled indicator for simple reproduction of the population the importance of the conclusively reached at the end of the 80's. Since 1991 the index has decreased and in 2005 it reaches a minimum. In the following years, the indicator was increased and was observed in 2009 Maximum population of last period, the reproductive gross (0,910) and net (0.887) coefficients increased. In 2010, 62585 live births were recorded, compared to the 2009 rate of birth rate. As regards the data of various countries in reproductology, the World Health Organization estimates that every seventh pair in the world is infertile. Pathogenesis of immune infections of males studied is not sufficiently contradictory to the characteristics of systemic and local immune reactions. According to WHO recommendations issued by experts at the end of the twentieth century, the immunological diagnosis of men infertility is possible when more than 40% of movable spermatozoon is covered with acids or there are no more than 1: 32 diluted serum in incubation (WHO Manual for the Standardized Investigation Diagnosis and Management of the Infertile Male Published by Cambridge University Press 2000), Many of the reasons for the development of infertility are known today, but many of the issues are still unclear, as the etiological factors in the body cause many-sided pathogenic changes, which requires additional study. That is why the actuality of the issue we have studied, especially given the fact that less attention is paid to the issue of male infertility in Georgia. Thus, the problem of infertility, which is faced by specific couples, significantly reduces their social and professional activities, increases the number of divorces, contributes to the development of a psychologically incomprehensible complex that promotes demographic situation in society. Demographic problems, diagnostic difficulties in men's infertility, poor understanding of pathogenic processes - this is an incomplete list of issues that make the issue very actual to us. It is important that, based on the results of our research, it will be necessary diagnostic criteria, which is necessary to identify the causes of breaking of fertility.