

Report from the III. National Congress of the Infection Diseases Society of the Czech Gynecological and Obstetrical Society

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The third National Congress of the Infection Diseases Society of the Czech Gynecological and Obstetrical Society was held on January 23, 2010, in Prague. The congress topic was Infection Diseases in Pregnancy. The congress was under the auspices of dean of the First Faculty of Medicine, Charles University in Prague, Professor Tomáš Zima, MD., DSc., MBA.

In the first lecture presented on the validity and dynamics of biochemical markers of inflammation in obstetrics, Dr. Brodská from the Institute of Clinical Biochemistry and Laboratory Diagnostics, First Faculty of Medicine, Charles University in Prague, discussed biochemical inflammation as a diagnostic marker. There are many laboratory markers of inflammation. Some of them, such as CRP and its dynamic changes in time are important for the clinical practice in conditions of a suspicion of intraovular infection. Procalcitonin levels are recommended as markers in critical ill patients with sepsis as their levels correlate with the degree of the disease gravity. Another clinical marker is IL-6 that when obtained statim has the highest diagnostic validity in newborn until 48 hours after delivery. Dr. Brodská has also emphasized in her lecture that obtaining CRP levels more than one-time per day is justified when indicated.

In another lecture presented by Dr. Malíčková from the Immunological ambulance of General University Hospital, discussed the physiological changes of the immune system in pregnant women, specifically considering the TH2 response and suppression of cytotoxic reactions. According to her lecture, there are also changes in levels of some cytokines and immunoglobulins. She also referred the possibility of increased sensitivity to intracellular pathogens particularly in pregnant women with some immunological weakness. She alerted to a different course in pregnancy with the progression of disease when TH1 is in remission, TH2 is even worse.

Dr. Jedličková, of the Institute of Clinical Biochemistry and Laboratory Diagnostics, First Faculty of Medicine, Charles University in Prague, discussed abnormalities of antibiotic administration in pregnant women. She described the FDA classification of some antibiotic safety group. She mentioned in details the physiological changes of absorption of medicaments given peroral or parenteral. She especially emphasized certain antibiotics generally used to treat some common infections in pregnant women, for example, potent Penicillins, and its use at low dosages.

Professor Homolka in his presentation on Pneumonia in Pregnancy, first generally discussed different types of pneumonia, its diagnostics, and clinical course. Then he dealt with the occurrence of pneumonia in pregnant women. His results were based on the US-data population because Czech statistics are not available. He also mentioned the CURB 65 classification that defines clear criteria for patient hospitalization with pneumonia and determines the possible risk of patient death according to the number of points obtained from the classification. In the final discussion, the question as to what type of department a patient with pneumonia should be hospitalized and treated was addressed. At the present time, there still

isn't a clear recommendation. Until now, pneumologists and obstetricians can not come to agreement on this issue.

Dr. Záhumenský of the Department of Obstetrics and Gynaecology, First Faculty of Medicine and University Hospital Na Bulovce, Charles University in Prague, in the last lecture of the first block presented the stages and a development of maternal morbidity due to infection in Europe and the World. Whereas in developed countries, infection comprises only a fragment of maternal morbidity, in developing countries it can be the main cause of both classical puerperal sepsis and illegal abortions. Other factors are general infections such as a malaria, tuberculosis and AIDS.

Associate professor Machala, of the Department of Infectious and Tropical Diseases, First Faculty of Medicine and University Hospital Na Bulovce, Charles University in Prague, in his lecture discussed pandemic flu and its course in pregnant women. He showed statistics of the current situation in our population. In detail he attended to recommendations concerning vaccination of pregnant against pandemic flu in the USA, where it is recommended that all of the population of pregnant women be vaccinated between 14 weeks in pregnancy and 6 weeks postpartum. He mentioned the use of neuraminidase inhibitors inhalatory applications in pregnant women that is more suitable in these women than the general administration of neuraminidase inhibitors. He has also emphasized the necessity of beginning therapy on-time.

Dr. Vaňousová, of the Department of Dermatovenerology, University Hospital Na Bulovce, discussed Lyme boreliosis in pregnancy, offered detailed guidelines of clinical management after discovering a tick in pregnant women, and in the case of symptoms occurrence about possibilities of antibiotic treatment. The lecture also involved recommendations when infection is proven to include detailed ultrasound of foetal development a recommendations of placental in-taking and serological examinations in peripartal period. She reported diseases in which false positive serological results can occur such as lues, herpes, rheumatoid diseases, etc. She mentioned a proceeding of recommendations in women with positive antibodies, but without a personal history of a tick bite. She also discussed tick examinations in NRL.

In Dr. Stejskal's lecture, from the Department of Infectious and Tropical Diseases, First Faculty of Medicine and University Hospital Na Bulovce, Charles University in Prague, tropical diseases in pregnancy focused on specific diseases that a pregnant woman can become infected with when she travels to tropical countries and pose a risk to herself and her foetus. There are also some differences in the progression of those diseases in pregnant women. He emphasized malaria that significantly increases risk of premature delivery and leads to a decrease in birth-weight. He spoke about antimalaric prophylaxis with medications that are safe for the whole period of pregnancy. He discussed the issue of the timing of pregnancy after travelling into tropical countries and respecting the incubation period of most

tropical infectious diseases. Obligatory vaccinations for tropical countries, their absolute and relative contraindications, were also briefly mentioned.

The lecture by Dr. Rozsypal, from the Department of Infectious and Tropical Diseases, First Faculty of Medicine and University Hospital Na Bulovce, Charles University in Prague, has been dedicated traditionally to problem of HIV positivity in pregnant women. The recommendations regarding planned caesarean section after careful antiviral prophylactics are still valid. He mentioned the necessity of HIV state blood examination within obligatory examinations in pregnant women. Part of the lecture addressed the prevalence, incidence of HIV positivity in the Czech population, and an analysis of the group of recent HIV positive diagnosed people. Then he described his own group of HIV positive pregnant women in the period of the last few years and his excellent results in prevention of newborn transmission using prophylaxis. He paid attention particularly to three cases when HIV transmission occurred from pregnant women to foetus. These women did not receive any prophylactic recommendations and they suffered also from other diseases.

Professor Jirásek from the Institute for the Care of Mother and Child in Podolí made a comprehensive presentation with detailed descriptions of human embryonic development. This was supported by extensive high quality visual material. He also suggested possibilities of teratogenic influence of chemical agents in various phases of development on the human foetus and embryo.

Dr. Čepický presented his lecture about recurrent vaginal mycosis in the afternoon in the part of the congress called sponsored lectures. He formulated clear clinical recommendations for specific diagnosis and successful treatment. In order to specify long-term problems, a detailed clinical history is needed. Long-term topical treatments should be essential. Dr. Zmrhalová of the Department of Obstetrics and Gynaecology, First Faculty of Medicine and University Hospital Na Bulovce, Charles University in Prague, followed with her statement about the role of Lactobacilli in the prevention and treatment of vaginal dysmicrobiosis and its consequences on the woman's life. Quite interesting was the fact that any imbalance in the vaginal milieu can increase susceptibility to some sexually transmitted diseases like HIV and gonorrhoea. Dr. Záhumenský planned the possibility for prevention of premature births and late miscarriages that originate on the basis of isthmocervical insufficiency after cervix conization. With the 90% of population vaccinated against cervical cancer, the incidence of premature births is 185/100 000 of births in total. The whole conference was enhanced by the lecture of Dr. Kováč, who spoke about the prevention of computer viruses and other malware. He pointed out some simple and useful instructions that can significantly decrease the risk of computer infection and consequent loss of data.

The last part of requested lectures was introduced by Dr. Driák of the Department of Obstetrics and Gynaecology, First Faculty of Medicine and University Hospital Na Bulovce, Charles University in Prague, about the possibilities

of vaccination in pregnant women. He widely addressed the problem not only in his travels to low risk countries, but also during travels to the foreign countries.

Associate professor Mašata from the Department of Obstetrics and Gynaecology, First Faculty of Medicine, Charles University in Prague, once again discussed the facts about the influence of vaginal infections on pregnancy and birth. He also mentioned Trichomonas infection, bacterial vaginosis, and aerobic vaginitis. He pointed out the importance of individual diagnostic methods used to determine the specific infection and the mostly used therapy. Metronidazol is used to treat Trichomonas and other bacterial vaginosis, however, should not be used in the first trimester of pregnancy. Bacterial vaginosis increases the risk of premature birth by a factor of 2–5times.

Dr. Koucký, who works at the same department, presented the recent view on the influence of infection on premature birth and its diagnosis. He postulates that preterm labour is frequently connected with Foetal Inflammatory Response Syndrome, which does not need to be connected with the foetal infection. The prediction of premature birth can be diagnosed prenatally by USG cervicometry, vaginal, and urine cultivation, and markers of inflammation (BC-differential count, CRP) and by the presence of vaginal discharge or bleeding. Dr. Koucký has called attention to the new possibilities of prediction of risk of premature birth by proving the presence of gelatinase, especially matrix metaloproteinase-8 (MMP-8). The elevation can successfully be used as a bed side test to MMP-8, which is already available on our market.

The lecture of Dr. Džupová from the Department of the Infectious and Tropical Diseases, Third Faculty of Medicine, Charles University in Prague, dealt with detailed description of sepsis and its diagnosis and treatment. She emphasized the necessity of taking the hemoculture before the use of antibiotics, even in febrile patients. If the antibiotics are already used, it is possible to use the PCR method. She repeated the basics of resuscitation in complex care, eliminating the agent causing sepsis and focus of infection, giving adequate volume support and sensitive antibiotics. In community infections, Cephalosporines of 3rd generation and Metronidazol are given.

Associate professor Binder from the Department of Obstetric and Adult and Paediatric Gynaecology, Second Faculty of Medicine and University Hospital Motol, Charles University in Prague, has shown the controversies of some stereotypes in antibiotics use and prophylaxis in pregnancy. He specified new trends in antibiotic treatment after PROM in various stages of pregnancy. He also mentioned the most suitable antibiotic treatment of uroinfection in pregnancy and demonstrated some studies that did not prove any clear benefit during uncomplicated caesarean section.

The organizers of the conference gave some space and possibility to free announcements. The part of the conference is dedicated especially to young doctors that are in their specialization period before entering gynaecologic practice. These doctors are usually members of ENTOG. One of the new members of the

ENTOG board is Dr. Maxová from the Department of Obstetrics and Gynaecology, First Faculty of Medicine and University Hospital Na Bulovce, Charles University in Prague. She presented the aims and regulations of the organization.

Dr. Goebel from the University of Pardubice presented a very interesting clinical case about the primoinfection of varicella zoster virus in pregnant woman after the term of birth, where there is no possibility to prolong the pregnancy to the time when the antibodies are produced. After the birth, the child was provided by passive immunization and did not show any clinical signs of the infection. Afterwards succeeded three lectures of the colleagues from Hradec Králové clinics led by associated professor Špaček. This team has a long-term experience with complex treatment of chronic vulvovaginal discomfort.

Last three presentations were presented by junior doctors from the Department of Obstetrics and Gynaecology of University Hospital Na Bulovce. Dr. Sýkorová's presentation dealt with the direct diagnosis of Chlamydia trachomatis DNA in cervix smear, endometrium and Fallopian tubes of the patients operated with ectopic pregnancy. The prevalence in the group of women demonstrated is low and there is no need for antibiotic treatment of these patients. Dr. Vlášil has presented the analysis of pregnant women with recurrent genital herpetic infection. These women were treated with prophylactic dose of Acyclovir as a prevention of herpetic infection presentation and viral excretion in the time of birth. In their group of patients there was no infection presentation in the time of birth and there was no need to perform an acute caesarean section because of the herpetic infection indication.

Dr. Maxová finished this block with a summary of antibiotic sensitivity in the urine samples from pregnant women with cystitis. She formulated recommendation for antibiotic treatment in pregnancy-the antibiotic of the first choice remains Penicillin, we can successfully use Cephalosporins of the 2nd or 3rd generation in allergic patients with no clinical history of anaphylactic shock. In those with anaphylactic shock in past we can use Nitrofurantoin, Aminoglycosides more carefully.

We can sum up, that similar interdisciplinary meeting is a very useful way for getting more complex view on the care of the pregnant women. This care is not only in hands of obstetricians-gynaecologists, but also other colleagues from different specializations. Among the most important are GP's as the doctors of the first contact. Next year the conference will deal with the gynaecologic infections, especially sexually transmitted diseases.