Comment

Despite the enormous progress in the development of treatment options and anti-infective prophylaxis, infectious diseases are still the major problem of modern medicine. There are diseases known to mankind for hundreds of years, and even in ancient times, but there is a concern over new pathogens that have appeared for recent years.

The most spectacular achievements in relation to the treatment of infectious diseases are those developed for effective therapy for chronic hepatitis C virus (HCV) infection, and drugs against hepatitis B virus (HBV) enable control of this infection. Since patients chronically infected with mentioned hepatotropic viruses are the largest group of patients in infectious diseases wards, the ability to impact the infectious process is of considerable practical importance.

This issue of "Postępy Nauk Medycznych" is devoted to discuss a number of current problems related to infectious diseases. Original and review papers are included and the leading theme is chronic viral hepatitis, but some other diseases, that are in the scope of infectious disease specialists interest are disscussed.

Dr Bura with co-authors from Poznań center headed by prof. Mozer-Lisewska discussed the problem of hepatitis E, which by many is seen as quite exotic. As we may learn from the data from Western Europe, the proportion of blood donors with anti-HEV is ten percent, and in some populations may exceed 50%. Modern look at the diagnostic capabilities of HEV infection and its availability can hope to increase detection in our country.

Prof. Łapiński from Białystok discussed the very current issue – threat of new coronaviruses. HVCo-SARS and HVCo-MERS arouse fear of the development of life-threatening diseases on different continents. Spectacular halt of SARS spread was a huge success of epidemiological international forces, but as shown in the current issue of Ebola fever, it is increasingly difficult to create boundaries for the spread of dangerous infections. The author focused his attention on the problem of MERS, which may soon cause another alert for the international community.

In the next article the author discussed the modern therapy of another infective threat that affects quite a high percentage of patients of different medical specialties – *Clostridium difficile*. This bacterium is the cause of serious, and in quite a large percentage of a fatal, infections of the gastrointestinal tract. In a large proportion the disease is of iatrogenic nature and because it is highly contagious it should be considered a huge epidemiological risk in health care settings. Intensive work on the new drugs are needed to stop this dangerous epidemic.

The frequency and nature of iatrogenic infections is evaluated in other work from the center of Lublin. Dr Krzowska-Firych with co-authors made a retrospective analysis of occupational exposures in health care workers. The most common form of exposure accounted for stabbing a needle. Optimistic conclusion of this work with fully effective post-exposure prophylaxis demonstrates the importance the proper epidemiological investigation and prophylaxis for people who have occupational exposure. The same author also discusses the incidence of nosocomial infections by drug-resistant bacteria.

The problem of hepatitis B, despite the introduction of universal immunization, remains a subject of interest for infectious disease specialists. No possibility of eradication of infection due to the presence of episomal forms (cccDNA) makes works on new drugs extremely important. So far we have medications that let us to control HBV infection. This theme is a subject of the work from the center in Łódź. Quantitative determination of HBsAg is the best example that sometimes simple ideas are the best. This parameter known for many years, only recently has been applied in the evaluation of the effectiveness of therapy and to determine the validity of its continuation in the absence of opportunity for ultimate success. Dr Berkan and prof. Piekarska discussed in details the role of vitamin D in viral hepatitis, including its significance for the course of natural infection and to the effectiveness of the antiviral therapy.

From the same center comes a very interesting original work on the assessment of indicators of aerobic metabolism in patients infected with HCV during treatment with pegylated interferon alpha and ribavirin. The authors demonstrated increased superoxide anion generation in patients with chronic hepatitis C and its reduction following the treatment. Analyzing the parameters of antioxidant barrier they proved increased enzyme activity before treatment and systematic decrease in activity during and after the combination therapy of PEG-IFN and RBV.

Noteworthy is also the original work of dr Rozpłochowski and colleagues. The authors conducted an analysis of protein deficits in patients hospitalized for diarrhea associated with *Clostridium difficile*. More than 72% of patients had protein deficits. Total protein deficiency correlated with serum albumin low level and the depth of deficiency was not dependent on daily number of stools, but the duration of diarrhea. The results contradict also the general opinion that a deficiency of a protein is dependent on the patient's age, renal function or the level of inflammation markers.

Finally, the authors from Lublin center presented the principles of the diagnosis and treatment of granulocytic anaplasmosis. This little-known disease among physicians may have different, often non-specific clinical symptoms, which can be expected with the wrong diagnosis. The limited sensitivity of bacteria to antibiotics may arise the risk of inappropriate treatment. The authors analysis is supported by the description of the case of anaplasmosis in a patient hospitalized in the Lublin clinic.

The topics discussed in this issue is a very small portion of the problems of modern infectious diseases. We hope that these articles, in addition to the scientific value, will provide educational material for a wide range of doctors.

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