281. ANTIBIOTIC SUSCEPTIBILITY OF ENTEROBACTERIACEAE STRAINS ISOLATED FROM URINARY TRACT INFECTIONS

Carlos Tortosa Valiente, Lukas Eckardt

Scientific adviser: Székely Edit, MD, PhD, University of Medicine and Pharmacy Targu Mures, Romania

Enterobacteriaceae are the most frequent causes of urinary tract infections. We analysed the antibiotic susceptibility of urinary isolates recovered at the Microbiology Laboratory of Mures County Emergency Clinical Hospital.

Materials and methods: We collected data from the electronic data base of the laboratory. All successive non-duplicate, clinically significant Enterobacteriaceae strains tested during a one year period (2015) were included in our study. Recurrent isolates were considered for analysis only if there were phenotypically different. Pluribacterial samples were excluded from the study.

Results: A total of 672 strains from 651 patients were involved in our study. The most frequent was E. coli (n=500, 74%), followed by Klebsiella pneumoniae (90, 13%), Proteus mirabilis (34, 5%), Serratia marcescens (18, 3%) and others (5%). The highest susceptibility was registered for ertapenem (93%). The least active antibiotic was ampicillin (31%). Relatively low susceptibility was detected against fluoroquinolons (64%) and trimethoprim-sulfamethoxazol (60%). In case of E. coli the highest susceptibility was registered for ertapenem (99.8%) and nitrofurantoin (99%). In case of Klebsiella pneumoniae the most active antibiotic was ertapenem (78%).

Conclusions: The antibiotic most active against all urinary Enterobacteriaceae isolates was ertapenem. Antibiotics commonly used to treat urinary tract infections, such as fluoroquinolons and trimethoprim sulfamethoxazol were less efficient, therefore their empirical use should be avoided. Nitrofurantoin, an antibiotic used to treat uncomplicated urinary tract infections caused by E. coli, was highly active.

Keywords: urinary isolates, fluoroquinolones, E. coli, Klebsiella spp.

282. A SYSTEMATIC LITERATURE REVIEW OF HEREDITARY ASPECTS OF OVARIAN CANCER

Dumitrita Colac

Scientific adviser: Rotaru Ludmila, MD, Molecular Biology and Human Genetics Department of *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Moldova

Introduction*:* Every year, worldwide, are registered 10 million new cases of cancer and 6.2 million deaths over the cancer. About 5 to 40 % of malignant tumors of all anatomical locations have a genetic etiology, and this percentage is growing due to increased general morbidity. So far, in the literature there are described over 200 hereditary cancer syndromes, for 35% of which are fully described the primary molecular defects or localisation of chromosomal mutation, and DNA diagnosis has become a routine method of investigation for genetic diagnosis. Ovarian cancer also refers to these pathologies.

Ovarian cancer ranks 7th in the incidence of malignant tumors that can occur in women, with peak incidence between 40 and 65 years. A woman's risk of developing ovarian cancer is 1,4 - 1,8%, with an annual incidence of approximately 57.3 / 100,000 women who reach the age of 75-79 years, representing the fifth leading cause of death cancer in women, and 5-year survival rate for all stages is between 35-38%.

Materials and methods: we study the articles, publications and scientific literature specific for this topic

Discussion and results: Morphological obvious of the intraepithelial carcinoma in fallopian tubes showed that glandular serous epithelium of the distal fallopian tube is the origin of anatomical primary disease in most hereditary ovarian carcinomas type II, then, it seems that the identification of intraepithelial tubal carcinoma with relatively non - invasive and in situ methods, by molecular imaging could lead to an improvement in primary and secondary prevention of diseases. Approximately 5-10% of ovarian cancers develop due to genetic predisposition, by mutations of the BRCA1 gene (17q) and BRCA2 gene (13q) - forming a combination of ovarian and breast cancer, hereditary breast-ovarian cancer (HBOC) syndrome. Other genetic mutations involved in the pathogenesis of ovarian cancer are changes in metalloproteinases, in PTEN, TP53. Around 60% of cases of serous ovarian cancer in stage III and IV are related to have mutations in the TP53 tumor suppressor gene.

Conclusion: By investigating mutations in ovarian cancers genetically determined, we could increase survival by performing prophylactic salpingo-oophorectomy to susceptible persons.

283. INHERITED METABOLIC DISORDERS IN REPUBLIC OF MOLDOVA

Andrei Cojocari

Scientific adviser: Perciuleac Ludmila, PhD, Associate Professor, Usurelu Natalia, MD, PhD in Medicine at CNSRGM, Department of Molecular Biology and Human Genetics, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction: Inherited metabolic diseases include different inborn errors of metabolism caused by genetic reasons. It should be noted that each inherited metabolic disorder is rare in population but all together these diseases may affect about 1 in 1000 to 2500 newborns. Some of these diseases are detected by routine screening, other need elaboration of new efficient methods of diagnosis. The aim of this study was to present the current comprehensive information about the distribution, frequency and methods of diagnostic of the inherited metabolic disorders in Republic of Moldova during last 5 years.

Material and Methods: We analyzed publications and medical data for the last 5 years using PubMed, SpringerLink system and IBN to study the incidence, prevalence, causes, symptoms, and modern methods of diagnosis of inherited metabolic disorders in Moldova.

Discussion results: It's known that the main cause of the inherited metabolic disorders is different mutations in genes that produce abnormalities in synthesis, transformation and degradation of proteins, lipids and carbohydrates. Inherited metabolic diseases are characterized by a variety of symptoms that may affect any organ and usually affect more than one. There is no effective therapy for