measurements can be done with the aim of reaching glucose levels < 11.1 mmol/l (< 200 mg/dl). Use of insulin ideally requires self-monitoring of blood glucose.

The documented experience of treating DM in TB patients is mostly limited to three types of drugs: metformin; sulphonylurea derivates (SUs) and insulin. These three types of drugs are also the most widely available. Newer drugs for treating DM, such as incretin-based therapies (glucagon-like peptide 1 receptor agonists and dipeptidyl peptidase 4 inhibitors) and sodium glucose transporter 2 inhibitors, are generally not available in resource-limited countries.

The standard treatment regimens recommended for drug-susceptible and drug-resistant tuberculosis (TB) remain unchanged with or without diabetes mellitus (DM) as there is no strong evidence currently to support an alternative approach. Dosages should be given daily throughout both the initial and continuation phases. When the person with DM is diagnosed with TB, either through bidirectional screening in the TB clinic or through bidirectional screening in the DM clinic, the treatment should always be administered, supervised and monitored in a TB clinic where the drugs are available and where health care workers are trained in the management of the disease and patient-centred care.

Since DM is associated with an increased risk of drug-resistant TB and worse TB treatment outcomes, patients need to be carefully assessed for drug resistance at the beginning of treatment and carefully monitored for failure during treatment and for relapse after treatment has been completed.

Sorokhan V.D.

THE USAGE OF AUSAK AND REO-WATER SOLUTION IN THE COMPLEX TREATMENT OF PATIENTS WITH ACUTE SHIGELLOSIS

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Clinical and laboratory studies were performed in 5 patients with shigellosis. All patients had gastroenterocolitis syndrome (acute onset, fever, nausea, vomiting, abdominal pain, mainly in the left lower quadrant, frequent scanty stools with mucus. The course of the disease was moderate.

The effectiveness of AUSAK (containing a live culture of saccharomyces boulardii (5 billion CFU), as well as vitamin B2) was studied in 5 patients. A one sachet of AUSAC was administered PO QD for 5 days. To restore the signs of dehydration supplemented solution (ReO-water) was given orally in addition to the basic treatment: detoxification and rehydration with parenteral ("Trisil", reosorbilact) administration of saline solutions, nifuroxazide, enterosorbents, enzyme preparations.

As a result of clinical monitoring, it was found that in patients treated with AUSAK in combination with a solution of ReO-water, the disappearance of symptoms of intoxication and normalization of bowel movements occurred earlier (on average 1.5 days) compared with the control group.

Sydorchuk A.S.

IVERMECTIN FOR PREVENTION AND TREATMENT OF COVID-19: PROS & CONS (BRIEF REVIEW)

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For a discovering of ivermectin and arthemisin in 2015 Nobel Prize in physiology and medicine was awarded. C47H72O14(H2B1b) is chemical formula of this prospective drug, which since 1997 was approved for a treatment of onchocerciasis and strongyloidiasis mainly. This substance can be used in human only per os and can connect on 93% with serum proteins and metabolize in the liver. Ivermectin is active because can amplify a formation of neuro mediators which inhibit gamma amino butyric acid that led to the blockage of neuromuscular transmission, paralysis and death of parasite.

Ivermectin was screened in 2020 for activity against COVID-19. The research purpose was to analyze efficacy of the ivermectin based upon international scientific papers with meta-analysis data and systemic reviews. Free access journals in the COVID-19 field, Cochrane library publications, PubMed data were analyzed.

In March 2021 WHO advises that ivermectin only be used to treat COVID-19 within clinical trials. 24 randomized controlled trials with total number of 3,406 participants were conducted. The antiparasitic ivermectin, with antiviral and anti-inflammatory properties, has now been tested in numerous clinical trials. Ivermectin application for scabies gives a direct cost of around three dollars for a hundred of 12-mg tablets.

Most trials were registered, self-funded, and undertaken by clinicians. It had been assessed efficacy of ivermectin treatment in reducing mortality from COVID-19, as well as for prevention and reducing of clinical signs and severity.

Conclusions suggest that ivermectin reduced risk of death compared with no ivermectin. Meta-analysis of 15 trials (n=2,438) revealed average risk ratio 0.38 and suggest moderate-certainty evidence by GRADE score.

There are still insufficient data to recommend either for or against the use of ivermectin for the treatment of COVID-19. The sample size of most of the trials was small. Various doses and schedules of ivermectin were used. Some of the randomized controlled trials were open-label. Patients received various concomitant (confounding) medications (e.g., doxycycline, hydroxychloroquine, azithromycin, zinc, corticosteroids). The severity of COVID-19 in the study participants was not always well described. The study outcome measures were not always clearly defined.

Thus, moderate-certainty evidence finds that large reductions in COVID-19 deaths are possible using ivermectin. Using ivermectin early in the clinical course may reduce numbers progressing to severe disease. The apparent safety and low cost suggest that ivermectin is likely to have a significant impact on the SARS-CoV-2 pandemic globally. Studying of efficacy of ivermectin should be continued.

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ASSESSMENT OF THE PREVALENCE OF ADVERSE REACTIONS TO ANTIMYCOBACTERIAL DRUGS IN PULMONARY TUBERCULOSIS

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The problem of effective and safe pharmacotherapy is relevant worldwide. Treatment of a patient with tuberculosis (TB) is one of the main issues. The development of common, destructive, resistant forms of TB and the occurrence of severe adverse reactions (AR) in the treatment process are the main problems in the fight against this disease.

230 patients with confirmed pulmonary TB were examined. The daily doses of drugs included in the standard chemotherapy regimen were calculated according to the concept of chemotherapy. An average follow-up was 59 days (95% CI (95% CI) 16-133 days).

Allergic ARs were found in 15% of patients. The manifestations of AR in the form of eosinophilia were found in 25% of patients, including urticaria - in 41.7% of patients.

AR of a toxic nature was determined in 66.7% of cases. Medical-induced liver damage was registered in 57.9% of patients, of which it was confirmed only by an increase in the level of transaminases in the blood - in 86.4% of patients. In 13.6% of patients, the cytolysis syndrome was accompanied by clinical manifestations (increased direct bilirubin fractions, jaundice, nausea, vomiting). From the side of the nervous system, AR of a toxic nature was recorded in 26.3% of patients in the form of headaches, in 18.4% of individuals in the form of a sleep disorder. From the side of the cardiovascular system, the following changes were noted: an increase in blood pressure was noted in 27.6% of the patient, pain in the heart - in 10.5% of people, metabolic changes on the ECG - in 9.2% of patients. The manifestations of AR considering the gastrointestinal tract were noted in 63.2% of cases in the form of nausea and in 55.3% of vomiting.