МЕЖДУНАРОДНЫЙ ЦЕНТР НАУЧНОГО СОТРУДНИЧЕСТВА
«НАУКА И ПРОСВЕЩЕНИЕ»

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МЕЖДУНАРОДНЫЙ ЦЕНТР НАУЧНОГО СОТРУДНИЧЕСТВА

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IMPORTANT MICROORGANISMS IN UPPER RESPIRATORY TRACT INFECTIONS IN COVID-19 PATIENTS

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Аннотация: В Узбекистане выявлены возбудители гнойно-воспалительных заболеваний верхних дыхательных путей у больных COVID-19. Материал и метод. В марте 2021 г. было отобрано 35 пациентов с диагнозом «инфекция COVID-19», находившихся на лечении в Республиканской специальной больнице № 1 «Зангиота», и у них было проведено бактериологическое исследование мазков из зева. Результаты: из них 16 женщин и 19 мужчин. Из 35 пациентов у 12 была моноинфекция, а у 23 — смешанная инфекция. Самый высокий процент обнаружен у Candida ssp. и (51,4%) и S. aureus (45,7%), за которыми следуют St. epidermedis 22,8%, Klebsiella pneumonia 20%, Streptococcus spp. Выявлено 14,3%, синегнойной палочки 15,3%. Вывод. Согласно полученным данным, грибковые инфекции были выявлены более чем у 50% больных с бактериальными инфекциями в связи с чрезмерным и неизбирательным применением многими больными антибиотиков. У пациентов с диагнозом COVID-19 S. aureus лидировал в 45,7% возбудителей.
Ключевые слова: COVID-19, микроорганизмы, S. aureus, грибы, антибиотики.

ВАЖНЫЕ МИКРООРГАНИЗМЫ ПРИ ИНФЕКЦИЯХ ВЕРХНИХ ДЫХАТЕЛЬНЫХ ПУТЕЙ У ПАЦИЕНТОВ С COVID-19

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Abstract: In Uzbekistan, the causative agents of purulent-inflammatory diseases of the upper respiratory tract of patients with COVID-19 have been identified. Material and method: In March 2021, 35 patients diagnosed with COVID-19 infection treated at the Republican Special No. 1 Zangiota Hospital were selected and their throat swabs were bacteriologically examined. Results: 16 of them were women and 19 were men. Of the 35 patients, 12 had monoinfection and 23 had mixed infection. The highest percentage is found in Candida ssp. and (51.4%) and S. aureus (45.7%), followed by St. epidermedis 22.8%, Klebsiella pneumonia 20%, Streptococcus spp. Revealed 14.3%, Pseudomonas aeruginosa 15.3%. Conclusion. According to the data obtained, fungal infections were detected in more than 50% of patients with bacterial infections due to the excessive and indiscriminate use of antibiotics by many patients. In patients diagnosed with COVID-19, S. aureus led 45.7% of pathogens.
Key words: COVID-19, microorganisms, S. aureus, fungi, antibiotics.

Introduction

According to the World Health Organization on January 10, 2022, COVID-19 infected more than 307 million people in more than 190 countries and regions were infected, of which more than 5.5 million (1.78%) died [6]. About 200,000 people in Uzbekistan have also been infected with COVID-19; More than 1,494 people (0.7%) died of the disease, and more than 197,000 (98%) people recovered. In particular, more than 1,700 (0.85%) patients are being treated in hospitals with varying degrees of severity. Cases and symptoms confirmed by COVID-19 include fever (42%), cough (20%), sore throat (10%), and sputum secretion (14%) [1,2,3,4] , fatigue (16%), headache (10%), gastrointestinal upset (2%), shortness of breath (8%) and muscle pain (16%) [1.5, 6].

The purpose of the research: To study the specific microbiological characteristics of throat infections in patients with COVID-19.

Material and method of inspection

In March 2021, 35 patients with COVID-19 infection, who applied to the Bacteriology Laboratory of the Department of Sanitary and Epidemiological Peace and Public Health of Chilanzar District in Tashkent and were treated at the Zangiota Special Hospital, were selected and their throat swabs were examined at the Bacteriology Laboratory of the Department of Sanitary and Epidemiological Peace and Public Health of Chilanzar District.

Results

The following results were obtained the Bacteriology Laboratory of the Department of Sanitary and Epidemiological Peace and Public Health of Chilanzar District during the bacteriological examination of the throat ointment of 35 patients with COVID-19 infection treated at the Zangiota Special Hospital. 16 of them were women and 19 men. Of the 35 patients, 12 had monoinfections and 23 had polyinfections. Mushrooms (51.4%) and S. aureus (45.7%) accounted for the largest percentage. Of the conditionally pathogenic microorganisms Klebsiella pneumonia 20%, fungi 51.4%, S.aureus 45.7%, Streptococcus spp. 14.3%, Pseudomonos aerogenosa 14.3%, St. epidermedis 22.8% were detected. By having information about the bacterial flora and determining the susceptibility of pathogens to antibiotics, it is possible to select effective antibiotics in the treatment of the disease, and at the same time shorten the patient's treatment period and reduce the transition to chronic forms and complications of the disease. The regional resistance of upper respiratory tract pathogens in patients with COVID 19 requires examination of the bacterial microflora on the basis of modern complex bacteriological methods and determination of susceptibility to new generations of antibiotics. In recent years, resistant strains of microorganisms have emerged against most antibiotics used in medical practice, especially in the treatment of upper respiratory tract diseases, as in most cases bacteriological tests in these diseases are almost non-existent and antibiotics treatment with drugs is carried out on the basis of approximate selection. The antibiotic efficacy of *S. aureus* detected in the upper respiratory tract of Covid 19 patients shows that Moxifloxin, Cefazolin, Cefoxytin Cephaperazones are twice as effective as Ampethylline, Benzylpetslline with a 100% result. Gatifloxacin, Ofloxacin, and Roxithromycin were 77% effective in 31 patients. In Candida ssp., the 100% sensitivity of antifungal drugs to nystatin was determined. Trinazole was found to be insensitive to 44.6%. When Covid 19 patients were diagnosed with upper respiratory tract microorganisms, other types of fungi were identified in addition to ssp fungi in candidiasis, and they were also found to be hypersensitive to Flucanazole, Clotrimazole, Nystatin, or antifungal drugs. The origin of all of the above fungi is due to the fact that patients do not get complete information about antibiotics and medications themselves, and doctors do not use antibiotic medications without laboratory bacteriological tests. Unfortunately, it has been observed that one patient has used 3-4 different groups of antibiotics, which may have led to the development of bacterial resistance.

Conclusion

According to the data, fungi accounted for 51.4% of all patients due to excessive and erratic use of antibiotics without seeing a doctor. One of the main complications of coronavirus in patients diagnosed with COVID-19 is that it causes secondary bacterial infections. This is evidenced by the fact that patients are twice as likely to have mixed infections as monoinfections. Therefore, it is advisable to first conduct a bacteriological examination of each COVID-19 patient, identify strains of the microorganism and, after determining their susceptibility to antibiotics, to include the appropriate antibiotics in the list of treatment measures individually.

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