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 AWARENESS OF MONKEYPOX INFECTION IN MEDICAL PROFESSIONALS IN GEORGIA

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ელენე ფაგავა, ნინო ჯორჯოლიანი, ირაკლი მჭედლიშვილი
 მაიმუნის ყვავილის ინფექციის ცნობადობა სამედიცინო სფეროს
 წარმომადგენლებში საქართველოში
 ეპიდემიოლოგიისა და ბიოსტატისტიკის დეპარტამენტი,
 თბილისის სახელმწიფო სამედიცინო უნივერსიტეტი

რეზიუმე

კვლევის მიზანი იყო საქართველოში სამედიცინო სფეროს წარმომადგენლებში მაიმუნის ყვავილის ინფექციის ცნობადობის დადგენა. სპეციალური კითხვარის (36 კითხვა) გამოყენებით 2023 წლის 18 სექტემბრიდან 18 ოქტომბრამდე პერიოდში ჩატარდა ერთმომენტური ჯვარედინი კვლევა, რომელშიც მონაწილეობა მიიღო 101 რესპონდენტმა. გამოყენებულ იქნა თანმიმდევრული ამონარჩევის შერჩევის მეთოდი. რესპონდენტები გახლდნენ სხვადასხვა სამედიცინო პროფესიის წარმომადგენლები და სამედიცინო უნივერსიტეტის დამამთავრებელი კურსების სტუდენტები. მონაცემები დამუშავებულ იქნა Stata 14.0-ში.

რესპონდენტების 85,15%-ს მაიმუნის ყვავილის შესახებ გაცონილი ჰქონდა, თუმცა, მხოლოდ 25,7%-მა იცოდა, როდის დაინფიცირდა პირველად ადამიანი ამ დაავადებით. უმრავლესობისთვის ცნობილი იყო, რომ პირველი შემთხვევა აფრიკაში დაფიქსირდა, მაგრამ მხოლოდ 20,0%-მა იცოდა მაიმუნის ყვავილის ვირუსის შტამების რაოდენობის შესახებ. თითქმის ნახევარი ინფორმირებული იყო დაავადების სიმპტომების თაობაზე. თუმცა, მხოლოდ 22,0%-მა გასცა სწორად პასუხი ინკუბაციური პერიოდის შესახებ. ასევე 14,0%-მა უპასუხა სწორად კითხვაზე, ყველაზე მეტად თუ ვინ ინფიცირდებოდა მაიმუნის ყვავილით. 39,0%-მა იცოდა დაავადების გავრცელების გზის შესახებ. მაგრამ მხოლოდ 38,0%-მა იცოდა, რომ არსებობდა მაიმუნის ყვავილის წინააღმდეგ ვაქცინაცია. რესპონდენტების 46,0%-ს მიაჩნია, რომ შეუძლიათ ამოიცნონ და ნაწილობრივ მართონ მაიმუნის ყვავილის ინფექცია. უმრავლესობამ სწორად უპასუხა შეკითხვებს დაავადების პრევენციისთვის ჰიგიენური ზომების როლზე.

კვლევამ აჩვენა, რომ მაიმუნის ყვავილის ინფექციის ცნობადობა სამედიცინო განათლების მქონე პირებში საკმაოდ დაბალია. სამწუხაროდ აღინიშნა სამედიცინო სიახლეების არასაიმედო წყაროებიდან მოძიების ტენდენცია.

მიზანშეწონილია, რომ მოხდეს მაიმუნის ყვავილის შესახებ ცნობადობის გაზრდა სამედიცინო სფეროს, პირველ რიგში პირველადი სამედიცინო რგოლის წარმომადგენლებში და სამედიცინო ინფორმაციის სანდო წყაროებიდან მიღების ხელშეწყობა.

Introduction. Monkeypox is a viral disease that causes fever, rash, and swollen lymph nodes in humans. It is mainly transmitted from animals to humans, but can also spread from person to person through contact with bodily fluids or respiratory droplets. Monkeypox is endemic in some parts of Central and West Africa, where it causes sporadic outbreaks with varying severity and mortality rates. However, since 2017, monkeypox has also been reported in several countries outside Africa, such as the United States, the United Kingdom, Singapore, and Israel [3,5,14]. These cases have raised concerns about the potential for monkeypox to become a global public health threat, especially in the context of the COVID-19 pandemic.

Monkeypox is a neglected tropical disease that poses a significant risk to human health and security. More research and investment are needed to improve the understanding, diagnosis, treatment, and prevention of monkeypox, and to strengthen the capacity and preparedness of countries to respond to outbreaks [9-11].

Aim and Objective. The aim was to study awareness of monkeypox infection among medical professionals.

Materials and Methods. A cross-sectional survey was conducted. The study period was from September 18, 2023 to October 18, 2023. The questionnaire consisted of 36 close-ended questions which were prepared based on the literature review [4,6,7,13]. They covered demographic data and general information on professional experience and attitude towards general medical issues; monkeypox awareness questions. Convenience sampling was used and the respondents mainly were medical students or professionals: n=101, 78% female, 79.2% of respondents were 18-28 years old, 69.0% with graduate or post-graduate diploma, 99.0% were living in Tbilisi, 73% were unmarried, 68.3% were employed and 50.5% were students of the final years (26 students were also semi-employed), 79.0% claimed to have average socioeconomic status.

The survey was conducted on the Google Forms platform. Participation was anonymous and voluntary. The results were statistically processed in Stata 14.0.

Results.

General information. A majority of the respondents answered positively to the question whether they are interested in medical research (82.2%) and read the medical news (59.4%). Unfortunately, the majority gets the medical news from untrustful sources, such as social media (41.0%). For 68.0% of the respondents current epidemic situation in the world was worrisome. There were no statistically significant differences by gender or age.

Monkeypox awareness. A majority of the respondents have heard about monkeypox (85.15%, male 90.9%, female 83.3%; 83.75% in 18-28 y.o. and 90.5% in 28+ y.o.).

Only 25.7% knew the correct time period when the first case of monkeypox infection in humans occurred (male 13.6%, female 27.85%; 26.25% in 18-28 y.o. and 19.05% in 28+ y.o. (p=0.016)). The majority did know that the first human case of monkeypox had been seen in Africa (59.5%; 50.0% in 18-28 y.o. and 85.7% in 28+ y.o. (p=0.018)). Only few knew about the correct number of monkeypox virus strains (20.0%). Almost half of the respondents were aware of the monkeypox symptoms (45.0% in 18-28 y.o. and 66.7% in 28+ y.o. (p=0.025)). But only 22.0% have responded correctly to the question regarding the incubation period (male 18.2%, female 24.05%; 26.25% in 18-28 y.o. and 9.5% in 28+ y.o. (p=0.033)). Only 14.0% were able to respond correctly to the question regarding who was getting infected with monkeypox most (male 18.2%, female 12.7%; 15.0% in 18-28 y.o. and 9.5% in 28+ y.o.). 39.0% were aware of monkeypox mode of transmission (male 40.9%, female 37.97%; 37.5% in 18-28 y.o. and 42.9% in 28+ y.o. (p=0.01)). 43.6% knew that in Georgia there had been reported a case of monkeypox (male 40.9%, female 44.3%; 47.5% in 18-28 y.o. and 28.6% in 28+ y.o. (p=0.001)). Only 38.0% of respondents knew that there existed immunization against monkeypox virus (male 45.5%, female 31.7%; 35.0% in 18-28 y.o. and 33.3% in 28+ y.o.). 46.0% of respondents considered themselves capable to recognize and manage monkeypox infection to some extent.

In case of monkeypox epidemics, 35.6% were correct to opt for carrying a mask in public places (though 46.5% were ready to have it on everywhere). 95.0% agreed that it was necessary to wash hands with soap. 94.1% of the respondents considered it necessary to isolate the person with monkeypox. 83.3% considered necessary to isolate as well the person who was in contact with the one infected with monkeypox. 94.1% suggested the necessity to disinfect monkeypox-contaminated objects. 54.5% agreed that it was necessary to perform wet cleaning of the full house of the person with monkeypox infection, and 39.6% - only to clean his/her room.

34.0% felt empathy towards the person with monkeypox, though 7% - fear and 1% - disgust. 67.3% of the respondents were in favor of the obligatory vaccination against monkeypox (male 68.2%, female 67.1%; 31.8% in 18-28 y.o. and 32.9% in 28+ y.o.). 92.1% considered it necessary to inform the general public on monkeypox, though 6.0% considered necessary to inform only the high-risk groups.

Discussion. The conducted study showed low awareness of monkeypox among doctors and medical students. The majority of respondents do not have knowledge about transmission mechanisms, virus strains, vaccine, risk group and incubation period. Similar studies were conducted in several countries. A study conducted in Peru showed that 92% of respondents answered 70% of the questions correctly. The awareness of Peruvian doctors was assessed at a high level, although according to the

researchers, the high awareness was facilitated by the epidemic situation in Peru and the training of health workers [8].

Sources of information are also an important factor, unfortunately, 87% of respondents in Georgia refer to unreliable sources, such as media and social websites, of which 26% did not receive any information about the monkeypox virus, only 12% of respondents refer to medical research and training and 12% is rather low for people with medical education. A study conducted in the Czech Republic showed low results on the awareness of monkeypox. According to the researchers, one of the reasons for this was the use of unreliable sources, as only 1.5% of respondents used such reliable sources as (CDC; WHO) in the Czech Republic, as well as in Georgia. The majority of the respondents surveyed in the Czech Republic had a negative attitude towards the monkeypox vaccination [12], while about 33% of the respondents surveyed in Georgia believe that immunization against monkeypox should not be mandatory. A similar attitude was observed in studies of Iraq and Lebanon, as well as in Jordan, only 18.7% had information about monkeypox recorded in the country [1,2,15]. In this regard, 43.6% of the respondents interviewed in Georgia had information about the detection of monkey pox in Georgia.

The low awareness of monkeypox virus may be due to the fact that there were just two cases of monkeypox infection in Georgia, as well as the fact that based on the study results most of the surveyed respondents received medical news from unreliable sources.

Despite the low level of awareness of monkeypox in Georgia, the attitude of the respondents towards hygienic norms was found to be quite adequate. More than 80% of respondents support wearing a mask, washing hands with soap, isolating the infected person, disinfecting contaminated objects during the monkeypox epidemic. Taking into account the similarity of the hygiene norms for monkeypox infection and covid infection, the high awareness of hygiene norms in case of monkeypox can be linked to the impact of the Covid infection, which has been relevant since 2020 and its consequences have turned out to be quite severe for the whole world [13].

The limitation of our study is that we have used convenience sample which was not representative of the general population of the medical professionals in Georgia.

Another limitation was that we were not able to compare medical students with medical professionals, as some of the students have already been working part time in the medical institutions.

Conclusion. The results of the study on awareness of monkeypox showed a limited level of knowledge among people with medical education. 80.0% of respondents do not know how many strains has monkeypox virus, 86.0% of respondents do not have information about the highest risk group for infection, 61.0% do not have information about main mode of transmission of monkeypox. 62% do not have information about monkeypox vaccine. Although the level of awareness of monkeypox infection is low, 46.0% believe that they can partially recognize and treat monkeypox infection.

We can conclude that medical professionals show some preparedness to deal with monkeypox infection but they need further education on this emerging public health threat. Also it is necessary to underline the importance of usage of reliable sources for the medical professionals in order to make them more informed compared to the general public.

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SUMMARY

The study has been undertaken to assess the level of monkeypox awareness among medical professionals in Georgia. High awareness among healthcare professionals is essential to effectively recognize and address this disease.

Between September 18, 2023, and October 18, 2023, a cross-sectional study was conducted among 101 respondents using a special questionnaire with 36 questions. Convenience sampling was used. The respondents were medical professionals from various specialties and the final years students enrolled in medical universities. The data were analyzed in Stata 14.0.

85.15% of the respondents have heard about monkeypox. But only 25.7% knew the correct time period when the first case of monkeypox infection in humans occurred. The majority knew that the first human case of monkeypox had been seen in Africa. Only few knew about the correct number of monkeypox virus strains (20.0%). Almost half of the respondents were aware of the monkeypox symptoms. But only 22.0% have responded correctly to the question regarding the incubation period. Only 14.0% were able to respond correctly to the question regarding who was getting infected with monkeypox most. 39.0% were aware of monkeypox mode of transmission. Only 38.0% of respondents knew that there existed immunization against monkeypox infection. 46.0% of respondents considered themselves capable to recognize and manage monkeypox infection to some extent. The majority of respondents answered correctly to the questions on hygiene measures to prevent monkeypox transmission.

The findings of the study have revealed a limited level of awareness among individuals with a medical background regarding monkeypox and unfortunately there was seen a tendency to obtain medical news from the unreliable sources.

It is advisable to raise awareness about monkeypox disease first of all among the primary health care professionals and encourage data seeking from the reliable sources.

Keywords: monkeypox, Georgia, awareness, medical professionals