CODEN [USA]: IAJPBB ISSN : 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

SJIF Impact Factor: 7.187

https://zenodo.org/records/10409111

https://www.iajps.com/volumes/volume10-december-2023/11-issue-12-december-23/

Available online at: http://www.iajps.com *Research Article*

THE IMPACT OF VIRUSES ON HUMAN LIFE

Ayed Al-Maliki[1], Esraa S. Al-Malki[2] , Abdullah Z. Al-Harthi[3] , Ibrahim H. Aburas[4] , Hanaa K. Al-Mogati[5] , Nada M. Al-Johani[6] , Sundus S.Al- Shamrany[7] , Futon T . Al-Mutairi[8] , Amal A.Al-Batat[9] , Rasha M. Al-Hejaili[10] , Rana.M. Al-Hejaili[11] , Khaireyah S. Gray[12], Manal A. Al- Salam[13] , Abdullah H. Al-Malki[14], Mohammad.A.Alsaedi[15], Mariam.A.Aldossary[16], Roua.N.Alsharif[17]

Laboratory specialist at Department of Forensic Medical Services in makkah[1]
Laboratory specialist at Hera General Hospital[2]
Laboratory specialist at Maternity and Children's in Taif[3]
Laboratory specialist at King Faisal Medical Complex in Taif [4]
Laboratory specialist at Regional Laboratory and Blood Bank in Dammam[5]
Senior specialist at Regional laboratory in AL Madinah AL Munawwarah[6]
Laboratory specialist at Regional Laboratory and Blood Bank in Dammam[7]
Laboratory specialist at Regional Laboratory and Blood Bank in Dammam[8]
Laboratory technician at Regional Laboratory and Blood Bank in Dammam[9]
Laboratory specialist at Al-Miqat Hospital[10]
Laboratory specialist at Ohud General Hospital[11]
Laboratory technician at Regional Laboratory and Blood Bank in Dammam[12]
Laboratory technician at Maternity Children's Hospital[13]
Laboratory technician at King Fasil Hospital[14]
Laboratory specialist at the Security Forces Hospital in Mecca[15]
Laboratory specialist at the Regional laboratory in Dammam[16]
Public health specialist in Vector borne and Zoonotic Diseases Administration in Jeddah[17]

Abstract: *The aim of the current study is, what is a virus, what are the types of viruses that infect and affect human life, what are the symptoms of virus infection for humans, how does the virus reproduce inside a living cell, what are the ways viruses reproduce inside the human body. , the questionnaire was created electronically via the Google Drive program, and then it was distributed via mobile phone on the social networking program (WhatsApp). Using e-mail for all participants to respond to the questionnaire. 700 questionnaires were distributed to all mobile groups, and 680 questionnaires were received on the researcher's e-mail.*

Keywords: *impact, viruses, human life*

Corresponding author:

Ayed Al-Maliki,

Laboratory specialist at Department of Forensic Medical Services in makkah

QR code

Please cite this article in press Ayed Al-Maliki et al., ***Overview Of Intussusception In The Emergency Department Among Pediatrics,*** *Indo Am. J. P. Sci, 2023; 10 (12).*

1-INTRODUCTION:

Viruses or haven , singular virus [1] or fever [2] [3] (in Latin: Virus). Virus aim "toxin" or "poison" in Greek. It is a tiny pathogen that can only copy inside the cells of another organism. Viruses are very little and cannot be showed optical microscope. Viruses strike all kinds of living organisms, from animals and plants to bacteria and archaea [4]. Although there are millions of virious species [5], only about 5,000 viruses have been qualified in detail [6].

This has placed since the initial discovery of the tobacco mosaic virus by Martinus Beijerinck in 1898 [7]. Viruses are ready in almost every ecosystem on Earth, and these small frames (viruses) are the most abundant biological entity in nature [8][9]. The study of viruses is recognized as virology, a subspecialty of microbiology. various prions and virus-like organisms, viruses contain of two or three bits: All viruses have genes made of DNA or RNA (long molecules that carry genetic information). They also have a protein shell that save these genes, and some of them are framing by a fatty envelope that surrounds them when they are outside the steward cell. Viruses do not have a protein envelope and prions do not have DNA or RNA. Viruses vary in format from plain ones, such as spirals and icosahedrons, to very compound structures. Most viruses smaller than the middle of bacteria by about a hundred times. The origin of viruses in the evolutionary history of life keep unclear. Some may have evolved from plasmids (molecules of DNA that can be transported from one cell to another), while others may have evolved from bacteria. In evolution, viruses are a serious worker in horizontal gene transmit, which reproduce genetic diversity [10]. Viruses expanding in many methods: plant viruses are carried from plant to plant often by sap-feeding bogs, such as aphids, while animal viruses can be transported by the blood of sucking insects (such as mosquitoes) known as vectors. The influenza virus expands through coughing and sneezing. The rotavirus that breed viral gastroenteritis is carried through the oro-anal way and is also transported from one person to another through connect, and enters the body with food or water. HIV is one of the viruses moved through sex, or display to come blood (eg through injection). Viral hitting in animals elicit an immune answer that usually clear the spoiled virus. This immune response can also be reason by vaccines, which give immunity against infection with a special virus. However, some viruses such as HIV and those that because viral hepatitis can sidestep this immune response and reason chronic contamination. Microorganisms also has vindication against viral infection, such as restriction amendment systems. Antibiotics have no impact on viruses so a few antiviral medications have been advanced, because these curing have comparatively few aims to intervene with. This is because the virus reprograms its host cell to increased new viruses, and has produced almost all of the proteins used in this operation a normal tiny of itself, with only a small number of viral proteins. It is necessary to culture viruses that can only produce inside living cells in order to better know their biology, replication and venereal cycle, especially for the planning of vaccines. Viruses that hit eukaryotic cells are grown in cell cultures gained from animal or plant tissue. The cells are cultured in a glass or plastic container and then polluted with the virus to be studied. Animal viruses can be cultured in pregnant eggs and sometimes in animals when cultivation is impossible in the laboratory. Bacterial viruses can be mature in cultures of bacteria that are susceptible to them. Plant viruses can also spring on monolayer plant tissues, cell suspensions or on entire plants. The virus can be quantified in various paths, they can be calculated directly thanks to an electron microscope. In the case of bacterial viruses, the plate (banding) technique is used to estimate the number of viruses in the suspension. A diluted suspension of the virus is joined to a bacterial suspension, then the whole is separated into Petri dishes. After cultivation, bands (transparent areas) show on the surface of the agar as an outcome of the destruction of bacteria and neighboring bacteria by Freon. Viruses can be removed by different biochemical ways (recognition, sedimentation, denaturation, enzymatic digestion). Viruses includes a wide range of forms and sizes, called morphology. Viruses are generally much smaller than bacteria. Most of the viruses studied are between 10 and 300 nanometers in diameter. Some filoviruses have a total length of up to 1400 nm; Their diameters are about 80 nm [11]. Viruses cannot be seen with an optical microscope, so an electron microscope is used to see them [12]. The destroy reason by this illness greatly helped European trails to unsettle and subjugate the indigenous people. A pandemic is an epidemic that expands throughout the world. The 1918 influenza pandemic, known as the Spanish Flu, was categorized as a Category 5 pandemic and was raised by an unusually sharp and deadly influenza A virus. The preys were mostly young, healthy people, in contrast to most former influenza outbreaks, which mostly influenced juvenile, elderly, or otherwise ill patients [13]. Viruses are one of the reasons of cancer in humans and other species. Cancers of viral origin occur only in a minority of people (or animals) contaminated with the virus. Oncoviruses come from a range of virus families, including both DNA viruses and RNA

viruses, so there is no single kind of oncovirus (a term originally used for acute retroviruses). Cancer development is determined by a variety of factors such as host immunity [14] and mutations that occur in it [15]. Viruses have been revealed to why human cancers and consist some genotypes of human papillomavirus, hepatitis B virus, hepatitis C virus, Epstein-Barr virus, and Kaposi's carcinoma-associated herpes virus. Human coronaviruses have been found and include some new viruses such as human papillomavirus, hepatitis B virus, hepatitis C virus, Epstein-Barr virus and Kaposi-discovered herpes carcinoma. The latest carcinogenic virus discovered in humans is the Merkel cell tumor virus (Merkel cell tumor virus), which includes most cases of the unusual shape of cancer called Merkel cell carcinoma [16]. Hepatitis viruses: Chronic viral infection leading to cancer can be observed [17] [18]. pollution with human T-lymphotropic virus develops into orbital spastic paraparesis and T-cell leukemia in adults [19]. Human papillomaviruses are the reason of cancer of the cervix, skin, anus, and penis [20]. Including herpesviruses, Kaposi-associated herpesvirus causes Kaposi's carcinoma and body cavity lymphoma, and Epstein-Barr virus causes Burkitt's lymphoma, Hodgkin's lymphoma, B-lymphoproliferative illness, and nasopharyngeal carcinoma [21]. Merkel cell polyomavirus is closely linked to SV40 and murine polyomaviruses have been used as animal types of cancer viruses for more than 50 years [22].

2-MATERIAL AND METHODS:

The study started in (the holy city of Mecca in Saudi Arabia), began writing the research and then recording the questionnaire in July 2023, and the study ended with data collection in November 2023. The researcher used the descriptive analytical approach that uses a quantitative or qualitative description of the social phenomenon (The impact of viruses on human life). This kind of study is characterized by analysis, reason, objectivity, and reality, as it is concerned with individuals and societies, as it studies the variables and their effects on the health of the individual, society, and consumer, the spread of diseases and their relationship to demographic variables such as age, gender, nationality, and marital status. Status, occupation [23], And use the Excel 2010 Office suite histogram to arrange the results using: Frequency tables Percentages [24]. A questionnaire is a remarkable and helpful tool for collecting a huge amount of data, however, researchers were not able to personally interview participants on the online survey, due to social distancing regulations at the time to prevent infection between participants and researchers and vice versa (not coronavirus participation completely disappearing from society). He only answered the questionnaire electronically, because the questionnaire consisted of fifteen questions, fourteen were closed, and one was opened. The online approach has also been used to generate valid samples in similar studies in Saudi Arabia and elsewhere [25]

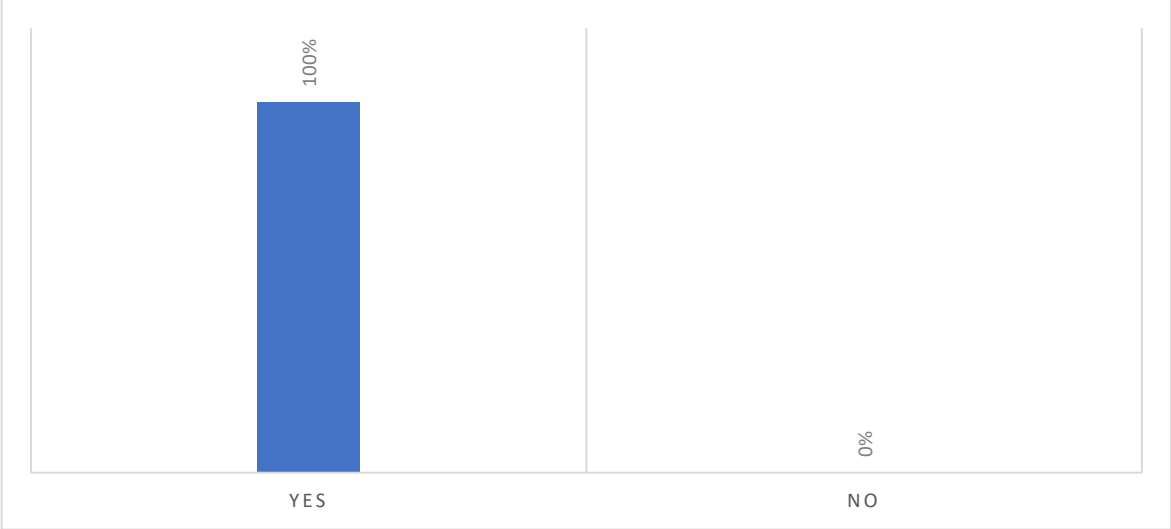
3- RESULTS AND DISCUSSION:

The percentage of participants in the research questionnaire was 100%, while their ages were 25-34 years old, 66.7%, 35-44 years old, 21.2%, 45-54 years old, 6.05%, and 55-60 years old, 6.05%. As for their gender, the percentage of males was 9.1%, and the percentage of females was 90.9%. As for the nationality of the participants, 97% were Saudis, and 3% were non-Saudis. As for their professions, they were as follows: student 9.1%, government employee 84.8%, private sector employee 3.05%, housewife 3.05%, self-employed 0%, worker (does not work) 9.1%. As for their educational status: primary 0%, intermediate 0%, secondary 9.1%, university 51.5%, diploma 15.2%, master's 18.2%, doctorate 3%. When moving to the questionnaire questions, we find the following: The first question: What is the meaning of the virus? The answers were as follows: A living organism existed outside a living cell, A parasitic organism that lives inside the human body and causes diseases, A foreign body attacks the immune system, A bacterium that cannot be seen with the naked eye, Living microscopic creatures, Virus is an infectious microbe. A non-living organism that does not have a nucleus and can live on living creatures such as animals, humans, plants, bacteria, fungi, algae, and others, and it crystallizes in the form of return cells.

A microorganism that causes disease, A virus is an infectious microbe, Invisible organisms cause disease, Antibiotics are not useful for her, It is a small pathogen that can only reproduce inside the cells of another organism, A virus is a small pathogen that can only reproduce inside the cells of another organism. A virus is a very small organism that attacks cells, It attacks the human body, weakens its immunity, and causes illness, microorganism replicates only inside living organisms, It is a microorganism that makes humans sick and may be transmitted from one person to another ,a very small organism that cannot be seen with the naked eye and cannot live except as a parasite on another organism, A microbe appears in the organ if there is inflammation, microorganism, A microbe that can only be seen with an electron microscope, a microorganism that is active in an environment adapted to it, microorganisms that cannot be seen with

the naked eye. The second question is: Is there a cure for viruses? Yes 81.8% and no 18.2%. The third question: Is the virus a living organism? Yes 81.3% and no 18.8%.The fourth question: Is the virus widespread in society? Yes, 97% and no, 3%. This is the same answer to the fifth question about: Are vaccines useful in limiting the spread of viruses? As for the sixth question, which is about the most famous types of viruses? Choose from the following? Coronavirus 6.1%, polio virus 0%, SARS virus 0%, all of the above 42.4%, influenza virus 52.8%.The seventh question: Is a virus different from bacteria? All responses were 100% yes. The eighth question: Are viral infections treated with antibiotics? Yes 36.4%, and no 63.6%. The ninth question: Are there laboratory tests to diagnose viruses? Yes 97% and no 3%. The tenth question: Is the Corona virus considered a viral infection? All answers were 100% yes. The eleventh question: What is the method of reproduction for viruses using ribosomes present in the host cell? Yes 97% and No 3%. The twelfth question: What are the types of viruses that infect the respiratory system? Influenza virus? Yes, the same as the previous answer. The thirteenth question: What are the symptoms of viruses? Fever, runny nose, sore throat, muscle pain? All answers were 100% yes. As for the last question: Is the virus more dangerous than bacteria? Yes 75.8% and no 24.2%.(figure No.1). Through this current study, all participants, old and young, believe that the virus is a very dangerous organism that infects the immune system, like the influenza virus 97%.

Figure No.1: People's opinions and trends about the impact of the virus on their lives(infected)



4-CONCLUSION:

Viruses are considered among the most dangerous living organisms, which pose a threat to human life, especially infectious ones such as hepatitis, cancer, some of which have been treated, and some of which have not yet been treated. Therefore, you must completely and completely avoid using other people's tools.

Acknowledgment:

To start with, I would like to Praise God and thank Dr. Anas S. Dablool, from Umm Al-Qura University (Public Health Department, Faculty of Health Sciences Al-leeth), Mecca, Saudi Arabia. And the researchers who make the project come to light.

REFERENCES:

1- Kamal Al-Din Al-Hinnawi (1987), Dictionary of Biology Terms: Plant Animal Classification and Inheritance (in Arabic and English), reviewed by: Hisham Kamal Al-Din Al-Hinnawi, Cairo: Academic Library, p. 535, OCLC:1158873751, QID: Q118929929.

2- Mounir Baalbaki; Ramzi Baalbaki (2008). Modern Resource: English-Arabic Dictionary (in Arabic and English) (1st ed.). Beirut: Dar Al-Ilm Lilmalayin. s. 1314. ISBN:978-9953-63-541-5. OCLC:405515532. OL:50197876M. QID: Q112315598.

3- Youssef Suleiman Khairallah (1998). Ahmed Shafiq Al-Khatib (editor). The comprehensive scientific encyclopedia (1st edition). Beirut: Lebanon Library Publishers. s. 312. ISBN:978-9953-33-776-0. OCLC:745323823. QID: Q118142307.

4- Koonin EV, Senkevich TG, Dolja VV (2006). "The ancient Virus World and the evolution of

cells". Biol. Direct. C. 1: 29. DOI:10.1186/1745-6150-1-29. PMC:1594570. PMID:16984643. Archived from the original on 04/09/2020. Viewed on September 14, 2008. {{Refereed journal citation}}: |archive-date= / |archive-url= timestamp mismatch (help)
5- Breitbart M, Rohwer F (June 2005). "Here a virus, there a virus, everywhere the same virus?" Trends Microbiol. C. 13 p. 6: 278–84. DOI:10.1016/j.tim.2005.04.003. PMID:15936660.
6- Dimmock p. 49
7- Dimmock p. 4
8- Lawrence CM, Menon S, Eilers BJ; et al (May 2009). "Structural and functional studies of archaeal viruses". J. Biol. Chem. C. 284 A. 19:12599–603. DOI:10.1074/jbc.R800078200. PMID:19158076. Archived from the original on 04/09/2020. {{Refereed journal citation}}: Explicit use of et al. in: |author= (help)
9- Edwards RA, Rohwer F (June 2005). "Viral metagenomics". Nat. Rev. Microbiol. C. 3 p. 6: 504–10. DOI:10.1038/nrmicro1163. PMID:15886693.
10- Canchaya C, Fournous G, Chibani-Chennoufi S, Dillmann ML, Brüssow H (August 2003). "Phage as agents of lateral gene transfer". Curr. Opin. Microbiol. C. 6 p. 4: 417–24. DOI:10.1016/S1369-5274(03)00086-9. PMID:12941415.
11- Collier pp. 33–55
12- Collier pp. 33–37
13- Collier pp. 409–415
14- Einstein MH, Schiller JT, Viscidi RP, Strickler HD, Coursaget P, Tan T, Halsey N, Jenkins D (June 2009). "Clinician's guide to human papillomavirus immunology: knowns and unknowns". The Lancet Infectious Diseases. C. 9 p. 6: 347–56. DOI:10.1016/S1473-3099(09)70108-2. PMID:19467474.
15- Shuda M, Feng H, Kwun HJ, Rosen ST, Gjoerup O, Moore PS, Chang Y (October 2008). "T antigen mutations are a human tumor-specific signature for Merkel cell polyomavirus." Proceedings of the National Academy of Sciences of the United States of America. C. 105 p. 42: 16272–7. DOI:10.1073/pnas.0806526105. PMC:2551627. PMID:18812503.
16- Pulitzer MP, Amin BD, Busam KJ (May 2009). "Merkel cell carcinoma: review". Advances in Anatomic Pathology. C. 16 p. 3: 135–44. DOI:10.1097/PAP.0b013e3181a12f5a. PMID:19395876.
17- Koike K (2007). "Hepatitis C virus contributes to hepatocarcinogenesis by modulating metabolic and intracellular signaling pathways." J. Gastroenterol. Hepatol. 22 Suppl 1:S108–11. DOI:10.1111/j.1440-1746.2006.04669.x. PMID:17567457.
18- Hu J, Ludgate L (2007). "HIV-HBV and HIV-HCV coinfection and liver cancer development". Cancer Treat. Res. C. 133: 241–52. DOI:10.1007/978-0-387-46816-7_9. PMID:17672044.
19- Bellon M, Nicot C (2007). "Telomerase: a crucial player in HTLV-I-induced human T-cell leukemia". Cancer genomics & proteomics. C. 4 p. 1: 21–5. PMID:17726237.
20- Schiffman M, Castle PE, Jeronimo J, Rodriguez AC, Wacholder S (2007). "Human papillomavirus and cervical cancer". Lancet. C. 370 A. 9590: 890–907. DOI:10.1016/S0140-6736(07)61416-0. PMID:17826171
21- Klein E, Kiss LL, Klein G (2007). "Epstein-Barr virus infection in humans: from harmless to life-endangering virus-lymphocyte interactions". Oncogene. C. 26 p. 9: 1297–305. DOI:10.1038/sj.onc.1210240. PMID:17322915
22- Zur Hausen H (July 2008). "Novel human polyomaviruses—re-emergence of a well-known virus family as possible human carcinogens." International Journal of Cancer. International Journal of Cancer. C. 123 p. 2: 247–50. DOI:10.1002/ijc.23620. PMID:18449881
23- Alserahy, Hassan Awad, et al (2008), The thinking and scientific research, Scientific Publishing Center, King Abdul-Aziz University in Jeddah, the first edition
24- Al Zoghbi, Muhammad and AlTalvah, Abas (2000), Statistical system understanding and analysis of statistical data, first edition, Jordon-Amman
25- Kadasah, N.A.; Chirwa, G.C.; et al. Knowledge, Attitude, and Practice Toward COVID-19 Among the Public in the Kingdom of Saudi Arabia: A Cross-Sectional Study. Front. Public Health 2020, 8, 217.