

2nd International E-Conference on

Virology, Infectious Diseases and COVID-19

Theme: Awareness and knowledge on Viral infections for healthy life

August 02-03, 2021 | GMT (London Time)

09-00 to 15.30

UNITED RESEARCH FORUM

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Virology, Infectious Diseases and COVID-19

Day 1- August 02, 2021

9:00 - 9:10 Introduction

Keynote Presentations

9:10 - 9:50 Study of HIV status in 500 cases Of S.T.DS
Narendra Kumar Chopra, SSEGI University, Malaysia

9:50 - 10:30 Identification of a new coronavirus in rectal swabs 15-30 days after overcoming the infection
Vladimir Zajac, Formerly scientist, Slovakia

Speaker Presentations

10:30 - 10:55 Exploring the phytochemical based inhibition of PonA1 from Mycobacterium tuberculosis by molecular docking, dynamic simulation and ADMET studies
Shyamapada Mandal, Department of Zoology, University of Gour Banga, India

10:55 - 11:20 Enhanced immunosuppressive effects of 3,5-bis[4 (diethoxymethyl)benzylidene]-1-methyl-piperidin- 4-one, an α , β -unsaturated carbonyl-based compound as PLGA-b-PEG nanoparticles
Laiba Arshad, Forman Christian College, Pakistan

11:20 - 11:45 Antimicrobial Resistance: Framework for Antimicrobial Stewardship Implementation in LAUTECH Teaching Hospital, Nigeria
Samuel Sunday Taiwo, Ladoke Akintola University of Technology and Teaching Hospital, Nigeria

11:45 - 12:10 Organ Bioprinting (The Next Generation Revolution in Medical Science)
Mahnool Patel, Lovely Professional University, India

Break (12.10-12.25)

12:25 - 12:40 Advantages of the resonance method impact on SARS-CoV-19 Viruses
Valentyn Nastasenko, Kherson State Maritime Academy, Ukraine

12:40 - 13:05 Discovery of potential antivirals against chikungunya virus
Md. Naushad Khan, Molecular Virology and Vaccinology Laboratory, India

13:05 - 13:30 Exploring Candida auris Proteome to Identify Potential Vaccine Candidates against the Infection using an Immunoinformatics Approach
Mahnool Patel, Lovely Professional University, India

13:30 - 13:55 Exploratory investigation on the antibacterial effect of antimicrobial peptides of four mammalian plasmas
Idress Hamad Attitalla, Omar Al-Mukhtar University, Libya

Break (13.55-14.05)

Keynote Presentations

14:05 - 14:45 Knowledge of chikungunya among newly admitted students at an offshore medical University in the Caribbean
Hari Nepal, Trinity Medical Sciences University, USA

14:45 - 15:25 Does fever increase or decrease blood circulation?
K. M. Yacob, Chief Physician).Marma Health Centre, India

15:25 - 15:30 Closing Day 1

End of the Day

Day-1

Keynote Sessions

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Study of HIV status in 500 cases Of S.T.Ds

Narendra Kumar Chopra

Clinical Professor,
SEGI University, Malaysia.

Abstract

The prospective study was carried out for detecting the prevalence of HIV in sexually transmitted diseases (S.T.D) cases at Shanti infectious diseases clinic at Vadodara, Gujarat, India from January 2018 to May 2020. Out of 500 cases of sexually transmitted diseases, 417 (83.4. %) were males and 83 cases (16.6%) were females. Screening of HIV test was done by Elisa test and was confirmed by Western blot test. Amongst 500 cases 400 cases (80.00%) were in age group of 20 to 50 years, 34 cases (6.8%) were of 0 to 20 years, 66 cases (13,2%) were above 50 years. Out of 500 cases 137 cases (27,4%) were syphilis, 45 cases (9.0%) were chancroid, 73 cases (14.6%) were gonorrhoea, 160 cases (32.0%) were genital herpes, 11 cases (2.2%) molluscum contagiosum 44 cases (8.8%) genital scabies, 9 cases (1.8%) cytomegalovirus infection and 21 cases (4.2%) were having lympho-granuloma venerium. Out of 500 cases of sexually transmitted diseases, 87cases (17.4%) were HIV positive, amongst which 71 cases (81.6%) were HIV1 and remaining 16 cases (18.3%) were HIV2. Although there is plausible link between STI and HIV risk, intervention studies continue to be disappointing. This does not disprove a causal link, but mechanisms of action and the design and implementation of interventions need to be better understood

Key words: HIV, STD/STI, HSV2, preventive interventions

Biography:

Narendra Kumar Chopra has completed his master's degree M. D Internal Medicine from "Maharaja Sayajee Rao University" Baroda, India in the year 1986. Subsequently he has completed his Fellowship in Tropical Medicine from Royal Society of Tropical Medicine and Hygiene London (U. K) in the year 1989. He was also awarded WHO Fellowship in the year 1990 in Leprosy, infectious diseases in countries of South East Asia & Africa. He has also received young scientist Melville Christian Memorial Award and Gold medal at national level in the year 1995 for research in the field of leprosy.

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Identification of a new coronavirus in rectal swabs 15-30 days after overcoming the infection

Vladimir Zajac,

Formerly scientist at the Cancer Research Institute,
Bratislava, Slovakia.

Abstract

Every virus is a parasite that cannot exist on its own and is fully dependent on its carrier. This is the basic condition of its existence. The parasite must have its host, and thus is a living cell, but it is generally claimed that the virus can exist without a carrier for 2 to 5 seconds, during which it is transmitted to another species. The primary carrier, however, cannot be host organ cells because they could easily damage them. In terms of the mechanism of existence and transmission, the following could be the most suitable carriers of the virus: bacteria, yeast or other single-cell organisms. Based on work with bovine leukosis virus (BLV) in the stables, we monitored the course of infection in healthy animals and concluded that a bacterial cell can be the host of the virus. We tested this assumption and confirmed the results. This idea was then tested on the HIV model. Even with this virus, we have been able to prove that its host may be bacteria, or yeasts.

Based on our achieved results and inventions, rectal swabs were taken from persons who overcame the infection with a new coronavirus at the Institute of Clinical Microbiology at the Faculty Hospital Nitra (Slovakia) under the leadership of Prof. MUDr. Anna Liskova, PhD. The obtained results confirm that out of a cohort of 30 tested persons, only five patients (17%) did not show signs of presence of the novel coronavirus in their stool more than 12-30 days after overcome the infection, as proven by RT PCR tests. The remaining 25 subjects (83%) still had presence of coronavirus in their stool more than 12-30 days after overcome the infection. The results show that most patients still have the virus in their stool, ie in the intestinal tract, after overcoming the infection. This supports the assumption that these individuals may still be infectious and may pass the virus to other people. It is therefore recommended that these people strictly adhere to necessary hygiene. Strict adherence to the recommended measures will radically reduce the number of newly infected people and victims.

The detection of the novel coronavirus in the intestinal tract of people who overcame the infection 2-4 weeks before being tested raises a fundamental question: in what form does the virus exist in the tract? A virus such as a parasite cannot exist on its own, cannot reproduce and cannot be transmitted to another organism. It therefore must have a carrier. So, what carriers does the virus use to persist in the intestinal tract, but also throughout the body? Can they be bacteria or yeast, or some other single or multicellular organisms? By identifying the carrier or carriers of the virus and their subsequent elimination, we also eliminate the virus. And that may bring the epidemic to its end.

Biography

Vladimir Zajac has completed his PhD. in 1982 at the Cancer Research Institute of Slovak Academy of Sciences in Bratislava (Slovakia), where he worked as the Head of Department of Cancer Genetics from 1996 to 2010. He joined the Medical Faculty of the Comenius University as Associate Professor of Genetics in 2007. He has published 74 papers mostly in reputed journals and he was editor of the book „Bacteria, viruses and parasites in AIDS process“ (In Tech, 2011).

Day-1
Speaker Sessions

Virology, Infectious Diseases and COVID-19

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Exploring the phytochemical based inhibition of PonA1 from *Mycobacterium tuberculosis* by molecular docking, dynamic simulation and ADMET studies

Shyamapada Mandal,

Department of Zoology,
University of Gour Banga,
India.

Abstract

Objective: To perform molecular docking of plant-based bioactive compounds against a class of penicillin-binding protein PonA1 from *Mycobacterium tuberculosis* causing tuberculosis in humans. This study also authenticated the stable protein-ligand binding by molecular dynamic simulation.

Methods: The 3D structures of *Withania somnifera* (in Bengali Ashawagandha) phytochemicals, such as viscosalactone B, withaferin A and withanolide A, were retrieved from PubChem (<https://pubchem.ncbi.nlm.nih.gov/>), and were used as the ligands. The crystal structure of PonA1 (from *Mycobacterium tuberculosis*) was selected as target, and was downloaded from RCSB Protein Data Bank (<https://www.rcsb.org/>), in 3D form. We have docked the phytochemical ligands to MtPonA1, and the protein-ligand interactions were analysed. Kanamycin was used as the control. The pharmacokinetics profile of the phytochemical ligands (viscosalactone B, withaferin A and withanolide A) were predicted in silico, and the structural authenticity of MtPonA1 was determined through Ramachandran plot analysis.

Results: The docking analysis showed the highest binding affinity of withanolide A (binding energy -10.7 kcal/mol), followed by viscosalactone B (binding energy -9.2 kcal/mol) and withaferin A (-9.0 kcal/mol), against MtPonA1. The binding affinity of withanolide A to MtPonA1 was higher compared to the 2 other bioactive compounds, and hence the 'MtPonA1- withanolide A' complex and the free components of the docked complex (ligand and protein alone) were subjected to MDS, authenticating their stable binding, due to low binding free energy (-110.17 kJ/mol) with RMS deviation 0.15 nm and maximum RMS fluctuation 0.055 nm. Pharmacokinetics prediction revealed the acceptability of the ligands as drug-like compounds.

Conclusion: This in silico study suggests the usefulness of *Withania somnifera* derived bioactive chemical compounds as suitable leads to manage *Mycobacterium tuberculosis* infection causing deadly tuberculosis in humans.

Biography

Shyamapada Mandal, Professor, Department of Zoology, and Dean (Faculty of Science), University of Gour Banga, India, is interested on infectious diseases, probiotics, genomics and bioinformatics research, and in silico drug development. He did pre-PhD, PhD, and post-PhD research under the guidance of Professor Nishith Kumar Pal at Calcutta School of Tropical Medicine, India. He has published 117 articles with eight book chapters. He is life member of IAMM and IASR, India, and fellow member of SASS, India. Eight national academic and research awards have been conferred to him. He has guided 52 post graduate students; supervised three MPhil and three PhD students. Professor Mandal is among the world's top 2% scientists as per the survey of the Stanford University, published in PLOS (Public Library of Science) Biology (October, 2020).

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The prevalence of comorbidities among adult people diagnosed with HIV infection in a tertiary care hospital in western Saudi Arabia

Abdullah A. Alabbasi

King Saud bin Abdulaziz University of Health Sciences,
Jeddah, Saudi Arabia.

Abstract:

Background

The life expectancy of people living with HIV is markedly increasing with the introduction of effective antiretroviral medications. However, these patients face an increased risk of developing multi-morbidities- especially with advanced age. This study was conducted to assess the prevalence of and risk factors associated with the occurrence of chronic comorbidities among patients diagnosed with HIV infection.

Methods

A retrospective chart review was conducted on the medical records of patients with HIV diagnoses from 2000 to 2018. Data were collected on age, sex, date of diagnosis, associated co-morbidities, antiretroviral medications (ART) and status at time of data collection (alive or deceased). Only adult patients 18 years or above were studied.

Results

A total of 130 confirmed HIV cases were included. Patient ages ranged from 23 to 86 years old (mean \pm SD 50.1 \pm 12.6). Almost half of the patients (48.5%) had at least one associated comorbidity. The most common chronic comorbidity was diabetes mellitus (15.4%), followed by dyslipidemia (10.8%), hypertension (10.8%) and lymphoma (10.0%). Comorbidity proportions increased with advanced patient age ($p = 0.047$). Three or more comorbidities were reported in 40.7% of patients aged 60 years old or above. Using logistic regression analysis, only patients aged 50 years old or above were more likely to have at least one comorbidity (OR = 7.59, 95%CI = 2.25, 25.61).

Conclusions

The burden of chronic comorbidities among people diagnosed with HIV is high, especially among older age individuals, with an increasing number of comorbidities per patient. Proper counseling for HIV patients is highly recommended-not only for prevention of other infectious diseases (e.g., vaccination) but also for lifestyle modification and self-management for those with chronic conditions.

Biography

Abdullah Alabbasi is a medical Intern and academic researcher who studies at college of medicine, King Saud bin Abdulaziz University of Health Sciences. He formerly served in the same university as research supervisor and student coordinator. He has participated in many public health campaign as a speaker, organized, and leader. He is author of 3 peer-reviewed publications including the current research published at the Journal of Infection and Public Health.

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Enhanced immunosuppressive effects of 3,5-bis[4-(diethoxymethyl)benzylidene]-1-methyl-piperidin-4-one, an α , β -unsaturated carbonyl-based compound as PLGA-b-PEG nanoparticles

Laiba Arshad

Department of Pharmacy,
Pakistan

Abstract:

3,5-Bis[4-(diethoxymethyl)benzylidene]-1-methyl-piperidin-4-one (BBP), a novel synthetic curcumin analogue has been revealed to possess strong in vitro and in vivo immunosuppressive effects. The aim of present study was to prepare and characterize BBP-encapsulated poly(lactic-co-glycolic acid)-block-poly(ethylene glycol) (PLGA-b-PEG) nanoparticles and to evaluate its in vivo efficacy against innate and adaptive immune responses. Male BALB/c mice were orally administered with BBP alone and BBP-encapsulated nanoparticles equivalent to 5, 10 and 20 mg/kg of BBP in distilled water for a period of 14 days. The immunomodulatory potential was appraised by determining its effects on non-specific and specific immune parameters. The results showed that BBP was successfully encapsulated in PLGA-b-PEG polymer with 154.3 nm size and high encapsulation efficiency (79%) while providing a sustained release for 48 hours. BBP nanoparticles showed significant enhanced dose-dependent reduction on the migration of neutrophils, Mac-1 expression, phagocytic activity, reactive oxygen species (ROS) production, serum levels of ceruloplasmin and lysozyme, immunoglobulins and myeloperoxidase (MPO) plasma levels when compared to unencapsulated BBP. Enhanced dose-dependent inhibition was also observed on lymphocyte proliferation along with the downregulation of effector cells expression and release of cytokines, and reduction in rat paw oedema in BBP nanoparticles treated mice. At higher doses the suppressive effects of the BBP nanoparticles on various cellular and humoral parameters of immune responses were comparable to that of cyclosporine-A at 20 mg/kg. These findings suggest that the immunosuppressive effects of BBP were enhanced as PLGA-b-PEG nanoparticles.

Biography

Laiba Arshad is currently working as Assistant Professor Pharmacology, Department of Pharmacy. She completed her PhD from National University of Malaysia. She has been participating in various national and international conferences and research seminars as well as served as International Conference organizer in her professional career. Also serving as Editorial board member and Reviewer of several Peer reviewed journals; published several research/review papers in peer-reviewed indexed journals. She is actively involved in natural product research and in the field of immunology.

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Antimicrobial Resistance: Framework for Antimicrobial Stewardship Implementation in LAUTECH Teaching Hospital, Nigeria.

Samuel Sunday Taiwo

Ladoke Akintola University of Technology (LAUTECH) and Teaching Hospital, Ogbomoso, Nigeria.

Abstract:

Background: Antimicrobial Resistance (AMR) is a global challenge in both developed and developing countries of the world. The AMR situation has worsened with the ongoing coronavirus disease-2019 (COVID-19) pandemic due to widespread inappropriate use of antimicrobials, and to many other factors associated with the pandemic response.

Purpose: The purpose of this presentation is to discuss the global and national challenges of AMR, and present the framework for implementing Antimicrobial Stewardship (AMS) program in LAUTECH Teaching Hospital, Nigeria, as a means of tackling the menace of AMR in its facility, amidst the present COVID-19 pandemic.

Methodology: The Global Point Prevalence Survey (G-PPS) and the WHO AMS assessment tools were used for situational analysis of the AMS program of the hospital, in order to identify strengths, weaknesses, opportunities and threats (SWOT) to the program implementation.

Results: The WHO AMS assessment revealed; willingness of the hospital leadership to support AMS program, presence of functional Infection Prevention and Control (IPC) program and staff enthusiasm as strengths; presence of AMR National Action Plan (NAP), National Antimicrobial Stewardship Working Group (ASWG), and access to free G-PPS as opportunities, while poor funding and lack of trained personnel as weaknesses, and industrial disharmony and ongoing COVID-19 pandemic as threats.

Conclusion: AMR is a global health crisis that requires concerted efforts and action plans at global, national, care facility and community levels to tackle the challenges posed by this entity. Nigeria has developed NAP to combat the AMR challenges in the country. LAUTECH Teaching Hospital is, through SWOT analysis, currently developing a framework for implementing AMS program required to manage and monitor appropriate use of antimicrobials as one means of tackling the menace of AMR.

Keywords: AMR; AMS; Implementation; G-PPS; NAP, COVID-19

Biography:

Samuel Sunday Taiwo is a Professor of medical microbiology and Consultant clinical microbiologist to LAUTECH Teaching Hospital, Nigeria. He is the head of the clinical microbiology laboratory, the chair of the hospital infection prevention and control (IPC) and antimicrobial stewardship (AMS) committees, as well as the hospital COVID-19 response team. His areas of academic research and professional interests are healthcare associated infections, antimicrobial resistance, infection prevention and control, antimicrobial stewardship, quality management system and good clinical laboratory practice standards. He was an ad hoc member of the Steering Committee of the Federal Ministry of Health that produced the National Infection Prevention and Control (NIPC) policy and strategic framework for implementation of IPC in all tiers of hospital facilities in Nigeria, and a member of the Technical Working Group (TWG) that produced the tool/protocol and curriculum for surveillance of surgical site infections (SSI) in tertiary hospitals in Nigeria. He has authored over 100 publications including scientific articles, conference proceedings and chapters in books, and currently the Editor-in-Chief of the African Journal of Clinical and Experimental Microbiology (AJCEM).

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Exploring Candida auris Proteome to Identify Potential Vaccine Candidates against the Infection Using an Immunoinformatics Approach

Mahnoor Patel

Department of Molecular Biology and Genetic Engineering,
School of Bioengineering and Biosciences,
Lovely Professional University, India.

Abstract:

This study helps in identifying cross reactive and conserved possible vaccine candidate against Candida auris infection by using comprehensive immunoinformatics approach. In-silico approach can be prove as beneficial and significant directive approach, whereas conventional methods focusing more on cultivating pathogen and protein extraction, testing of these proteins on large scale is time consuming as well expansive. Numerous vaccine candidates have been reported previously which were identified for producing promising preclinical and clinical trial data.

In present study, probable antigenic protein has been recognized, with its B-cell (linear and conformational) and T-cell (HTL and CTL) have been predicted for designing vaccine. After selecting 371 proteins from 3031 characterized proteins from whole proteome containing 5409 proteins of Candida auris, we found 5 highly immunogenic proteins named TVPI8, MTR1, CRR1, and Protein similar to MTR1 and SWP1 classified according to nomenclature of Candida albicans. Better immune response elicitation needs stable as well soluble immunogen, this character helps in eliminating CRR1 protein as it is not soluble as well not stable. MTR1 and protein similar to MTR1 are also eliminated as both are not soluble. From remaining two proteins named TVPI8 and SWP1, both are stable, non-allergen and soluble proteins located on plasma membrane. When it comes to eliciting immune response it is necessary to have good B-cell and T-cell (HTL and CTL) epitopes, which proves SWP1 more appropriate immunogen having more epitopes and are non-toxic. After analyzing all the data generated by immunoinformatics study, we found SWP1 is more appropriate immunogen in eliciting immune response which needs to determine by performing in-vivo study in animal model for antibody production response.

Keywords: Antifungal Agents, Candida auris, Identification Methods, Immunoinformatics, Multidrug Resistant, Opportunistic Pathogen, Vaccine Designing.

Biography:

Mahnoor Patel completed his master degree in Biotechnology and PhD in Molecular Biology and Genetic Engineering. Interest is in studying diseases for developing next generation vaccines and personalized medicine. Disciplines of my interest for research are Bioengineering, Biotechnology, Computational Biology, Cytogenetics, Developmental Biology and Embryology, Genetic Engineering, Immunology, Infectiology, Nanobiotechnology, Nanotechnology, Neurotechnology, Regenerative Medicine, Reproductive Biology, Stem Cell Engineering, Tissue Engineering, Translational Medicine, Vaccinology, Virology.

Also interested in 3D bio printing of human organs for transplantation. His interest is to change the way of present treatment of disease to next generation personalized treatment combined with nanotechnology which is a new era of medical science.

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ADVANTAGES OF THE RESONANCE METHOD IMPACT ON SARS-CoV-19 VIRUSES

V. Nastasenko

Doctor of Technical Sciences, Professor.
Kherson state maritime academy,
city of Kherson (Ukraine).

Abstract

The work relates to the fields of biophysics and virology, in particular - to the effect of external (induced) physical fields on bacteria and viruses. Currently, the SARS-CoV-19 coronavirus (hereinafter COVID-19) pandemic poses a threat to all mankind, and him it is constantly growing due to virus mutations that are more aggressive and harmful than its original strains. Since mutations are constantly and very quickly updated, therefore, the fight against COVID-19 is an important and urgent task, and any possible option, including the one proposed in this work, deserves attention and a detailed analysis of all its capabilities.

Traditional methods of control are reduced to vaccination and disinfection. Each of them has its own disadvantages. Vaccination is effective for individual protection of a person, but does not allow the destruction of viruses in the environment, even with the development of herd immunity in the entire population of the world (about 5 billion people), but only complicates its spread.

Immunity has a limited duration, which requires repeated vaccinations. New mutations in viruses also require new vaccinations and the development of new vaccines. Disinfection with chemicals and ultraviolet light destroys viruses, but has its drawbacks and limitations in its use. For example, UV disinfection (quartzization) kills all cells. In this case, the cells of the human body are also damaged. Therefore, during it, everyone must leave the premises, including a person who is a carrier of COVID-19 viruses. When he returns to this room, or a new infected person arrives, quartzing will be useless. A similar problem occurs with chemical disinfection. Therefore, it is necessary to destroy COVID-19 constantly, which requires finding other effective ways.

In this work, biophysical methods are taken as a basis, in particular, the effect of physical fields on the life and activity of viruses under the action of resonant frequencies, which lead to a sharp increase in the amplitude of forced vibrations of viruses and destroy them. This possibility substantiated at the beginning of the twentieth century by scientists Alexander Gurvich (Russia) and Royal Rife (USA). The resonant destruction of COVID-19 viruses by vibrations with an oscillation frequency of 25 ... 50 MHz was discovered by researchers from the Massachusetts Institute of Technology. These works are still considered controversial. since they are unprofitable for pharmaceutical companies. However, it should be borne in mind that in addition to profits, the lives of millions of people are on the "second side of the scale", therefore, a consensus is needed in solving this problem.

The new method does not deny vaccination, but only complements it as a disinfection method. A number of devices and programs have already been created that destroy viruses, but they need full-scale research and certification. If you give this area the same attention as the development of vaccines, success can be achieved within a year. The main advantage of the method is its versatility, since it is easier to tune in to the desired vibrations than to create new vaccines for virus mutations. Therefore, this problem is brought up for broad discussion.

Biography

ValentyN Nastasenko, Kherson State Maritime Academy Ukraine, faculties' Engineering and electronics, the department of transport technologies and mechanical engineering. Dr. technical sciences, Professor. A sphere of scientific interests includes quantum physics, the theory of gravitation, fundamentals of the material world and the birth of the Universe, the author of more than 70 scientific works in these spheres.

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August 02-03, 2021 | GMT (London Time)

Usutu Virus Potential Vectors and their Diversity in Iran: A Neglected Emerging Arbovirus

Keshavarzi Davoud,

Ahvaz University of Medical Sciences
IRAN.

Abstract

Introduction:

Usutu Virus (USUV) is a vector-borne flavivirus within the family of Flaviviridae; its reservoirs and vectors are birds and mosquitoes, respectively.

Methods: At first, electronic databases were searched with a date range from 2000 to 2018 to find the *Culex* species that transmit the disease and then for determining the diversity of those, mosquito larvae were collected from six places in three main environmental categories using the dipping technique.

Results: In total, 1369 specimens belonging to 10 different species were collected and identified, as follows: *Cx. hortensis* Ficalbi, *Cx. laticinctus* Edwards, *Cx. mimeticus* Noe, *Cx. perxigus* Theobald, *Cx. pipiens* Linnaeus, *Cx. modestus* Ficalbi, *Cx. sinaiticus* Kirkpatrick, *Cx. theileri* Theobald *Cx. torrentium* Martini and *Cx. tritaeniorhynchus* Giles. Four species involved as vectors of USUV in other countries are printed in bold. *Cx.pipiens*, as the main vector was the most frequent species in rural areas, share its larval habitats with *Cx. torrentium* (similarity > 0.9) and reached its peak in August. Overall, in the present study, there was a significant positive relationship between mean temperatures and abundance of mosquitoes ($r = 0.75$, $P = 0.005$).

Conclusion: In the present study, some species involved as main vectors of USUV in other countries and their ecological features were recorded. Based on these results, the possibility of the emergence of USUV in Iran exists.

Keywords Mosquitoes, Usutu virus, Species diversity, Flavivirus

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Knowledge of chikungunya among newly admitted students at an offshore medical University in the Caribbean

Hari P Nepal,

Associate Professor,
Department of Microbiology, School of Medicine,
Trinity Medical Sciences University,
Kingstown, USA.

Abstract:

Chikungunya is a re-emerging viral disease transmitted by mosquitoes. Since there is no specific drug treatment or licensed vaccine, knowledge of this disease among people is very important for its prevention and control. This study aims to assess knowledge of chikungunya among new students admitted to an offshore Medical University located in a Caribbean region that has experienced outbreaks of the disease since 2013. A cross sectional study using purposive sampling was conducted among all newly admitted students for a period of one year (May 01, 2019 to April 30, 2020). The study employed a pilot tested questionnaire. The participants who were aware of the disease were included in the knowledge score analysis. Total percent knowledge score of each participant was calculated and the knowledge level of each participant was determined to be good (score $\geq 70\%$), fair (score 50.1-69.9%) or poor (score $\leq 50\%$) as per the previously published report. Out of 129 questionnaires distributed, a total of 102 responses were obtained (response rate: 79.06%). Among 102 participants, only 39 (38.2%) were aware of the disease with 30.77% having good knowledge, 28.21% fair knowledge and 41.03% poor knowledge of the disease. Thus, a large percentage of newly admitted students at the offshore Medical University did not have adequate knowledge of chikungunya. Therefore, the new students need education about the disease in a very early phase of their stay in this region and should be encouraged to practice recommended strategies to avoid mosquito bites and control of mosquito vectors.

Biography:

Hari Nepal is an Associate professor of microbiology. He completed his MD/ Residency training in Microbiology and Infectious Diseases at BP Koirala Institute of Health Sciences, Nepal. After residency, he joined Chitwan Medical College Teaching Hospital, a tertiary care hospital of central Nepal as an Assistant Professor of Microbiology and worked there until he joined Trinity School of Medicine in 2015. He is an experienced teacher in several teaching modalities. He serves as a manuscript reviewer for several journals. His research interests are antimicrobial resistance, infectious diseases, and medical education. He has more than 35 publications. He has received teaching awards from Medical and Biomedical students.

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Does fever increase or decrease blood circulation?

K. M. Yacob,

Marma Health Centre,
India.

This is the first time many people have heard such a question.

When it comes to treating back pain, neck pain, and knee pain, it is often heard that the cause of the pain is reduced blood flow. A variety of heat-inducing devices are used to increase blood flow to the lower back, neck, and knee pains. Physiotherapy often provides more heat than fever.

To this day, no one has heard that fever is caused by poor blood flow.

As the disease progresses, blood flow decreases. Body tingling, body aches, and narrowing of the blood vessels under the skin are the signs, symptoms, and signals of decreased blood flow. Signs, symptoms, and signals of decreased blood flow show before the onset of fever.

When the disease becomes a threat to life or organs blood circulation decreases, Temperature of fever will emerge to increase prevailing blood circulation.

It is a well-known fact that as the disease progresses, blood flow decreases and this can lead to death. When there is a decrease in blood flow and its signs, symptoms, and signals, the immune system do actions to increase blood flow to save lives. It has been proven around the world that all types of heat increase blood flow. The heat of the fever increases the blood flow. Fever increases blood flow, which means more lymphocytes flow through lymphoid tissues. If the heat of the fever increases the blood flow, reducing the heat reduces the blood flow. It will increase inflammation and infection and finally, death will occur.

According to physics, it is foolish that when fever temperature is reduced, shows the symptoms, signs, and signals of reduced blood flow, are ignored and then treated to reduce the heat again. The fever is heat energy. To date, modern science has not studied what actions were carried out heat on fever.

The cause of all complications, including death, is the treatment of fever without knowing why it is hot.

What kind of treatment should be given if you have symptoms of decreased blood flow?

Treatment should be to increase blood flow.

This is the basic principle of physics.

Is there any benefit in reducing body heat during fever?

There is no merit of any kind.

Not only is it of no benefit, but it also causes death by inflammation and infection.

The actual treatment for fever is to increase blood circulation. Two ways to increase blood circulation. 1. Never allow body temperature to lose 2. Apply heat from outside to the body. When the temperature produced by the body due to fever and heat which we applied to the body combines together, the blood circulation increases.

Heat-reducing fever treatment with water and paracetamol should be banned as soon as possible.

Key Words: Blood flow, temperature, physics, heat energy

Biography:

A practicing physician in the field of healthcare in the state of Kerala in India for the last 33 years and very much interested in basic research. My interest is spread across the fever, inflammation and back pain. He is a writer, printed and published nine books on these subjects. He wrote hundreds of articles in various magazines. After scientific studies, we have developed 8000 affirmative cross checking questions. It can explain all queries related to fever.

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