NEWSLETTER

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ACP American College of Physicians
Leading Internal Medicine, Improving Lives

Bangladesh Chapter

In this Issue:

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ACP Governor, Bangladesh Chapter

Governor's Message

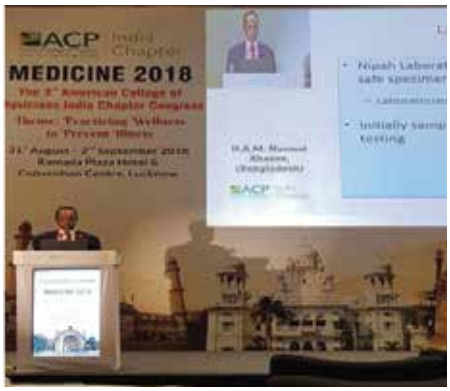
Dear Colleague,

Greetings from ACP Bangladesh Chapter.

With winter right at the corner, ACP Bangladesh Chapter has passed very busy schedule over the last 3 months since the last published August Newsletter. My fellow colleagues and I visited Lucknow International Conference organized by ACP India Chapter as a part of regional cooperation. I have attended a very important BOG meeting at Seattle. I am also very pleased as Prof. Quazi Tarikul Islam, Ex-Governor, was awarded as Masters from ACP.

ACP Bangladesh Chapter Attended International Conference of ACP India Chapter

ACP Bangladesh Chapter Governor Professor H.A.M. Nazmul Ahasan attended the Annual International Conference of ACP India Chapter held in Lucknow, India. Lucknow, being the capital and the largest city of the Indian state of Uttar Pradesh, has always been known as a multicultural city that flourished as a North Indian cultural and artistic hub. It continues to be an important centre for various institutions such as governance, education, music and art, pharmaceuticals, and many more. The auspicious International Conference was organized in Lucknow this year over a span of two and half days with programs covering 112 topics.



H.A.M. Nazmul Ahasan, AKM Aminul Hoque,
BA Muruganathan and other dignitaries at Lucknow conference.

The plenary session focused on “the challenges and solutions of medical practice”. Prof. Ahasan has highlighted 4 issues that affect the health care system of Bangladesh. For starters, a huge numbers of patients are taken care of by a relatively small number of health care personnel. Among these patients, most are of poor economic and educational background and thus they depend on government healthcare facilities. However, these facilities lack adequate doctors, nurses and other resources. The government health care system also suffers badly from an unorganized referral system.

The non-government healthcare facilities are often very expensive which renders them as inaccessible to many people. Health insurance systems that exist in many countries can work in this issue so that those with less income can afford costly medicine, diagnostic and therapeutic procedure.

Furthermore, many third world countries do not have proper documentation and record keeping system. Bangladesh is no exception here and does not have an effective record keeping system yet. However, digitalization of different services has slowly made its way into various sectors of health department in Bangladesh. Such a record keeping system not only saves money and time but also acts as an important source of epidemiological data which can serve as the basis of future research. In this regards, there is a lot of progress potential.

Professor H.A.M. Nazmul Ahasan also discussed on the management guideline of Nipah virus infection on the next day. India suffered a terrible outbreak of the Nipah virus infection recently, which made it a particularly important topic for the audience. He discussed about the agent, vector, pathophysiology, clinical presentation and management. He stressed upon prevention and control of the diseases by raising awareness among the people and the health care personnel. As vectors and viruses are transboundary in nature, neighboring countries must also develop a proactive strategy to control them. The internists of the regional countries urged upon preparing a standard guideline sharing expertise and experiences.

Professor Dr. AKM Aminul Haque, Professor of Medicine and Vice President of Bangladesh Society of Medicine (BSM) chaired the session on ‘Diabetes, Osteo-arthritis and Cardiovascular risks: unending continuum’. Dr. Md. Anwarul Bari, Associate Professor of Medicine of Sir Salimullah Medical College Hospital and Hasan Mohammed Kawser from National Institute of Cancer Hospital were among the other delegates from ACP Bangladesh Chapter. The ACP India Chapter displayed cordial hospitality to the Bangladesh Chapter members. The Times of India newspaper printed a feature on the meeting and highlighted the regional cooperation in the medical field.

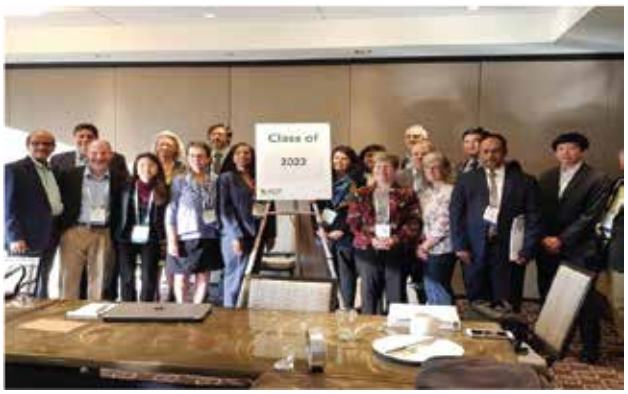
ACP Bangladesh Chapter Governor Joins the BOG Meeting 2018

ACP Bangladesh chapter governor Prof. H.A.M. Nazmul Ahasan joined the Board of Governors meeting held for the fall session in Seattle. Chapter Governors and Governor Elects from around the globe attended the meeting held from 26th to 29th September, 2018. The meeting included a full day workshop on the Chapters best practices.

The program commenced with a reception for the chapter staffs. The Governor elect workshop and the reception for the attendees were held on the next day. There were several sessions on the subsequent two days highlighting on optimizing the use of ACP services, moving the ACP membership forward and exchanging views and expertise among the ACP officials from all the chapters.

The Governor of Bangladesh Chapter has presented various successes of the chapter in this year. He also mentioned the top hurdles and challenges of the chapter including updating the membership regularly to prevent the drop out and the availability of visa for the interested attendees of the annual Internal Medicine meeting of ACP.

He stressed upon extending the regional cooperation among the nearby ACP chapters including Japan, India and Southeast Asia. Dr. George M. Abraham, Chair, Board of Regents and Dr. Muruganathan, Governor ACP Chapter India has confirmed to attend the annual congress of BSM 2018.



H.A.M. Nazmul Ahasan at BOG Meeting, Seattle, USA

Governors of Japan and South East chapter have also expressed their interest in attending future conferences in Dhaka, Bangladesh.

The occasion concluded with the BOG business meeting and treasurer's report held on the 29th September 2018.

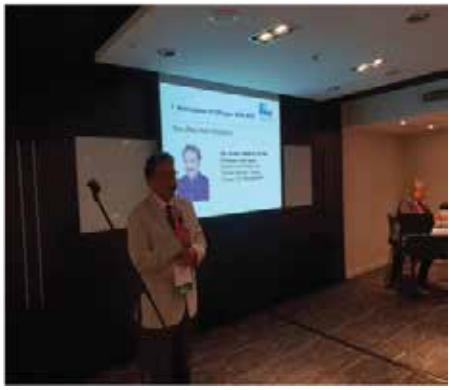
New Masters for ACP Bangladesh chapter

We are very much delighted as Prof. Quazi Tarikul Islam, Ex-Governor ACP Bangladesh Chapter, have been awarded as Master of ACP.

Quazi Tarikul Islam MACP

Cape Town, South Africa – 34th WCIM 2018

A large group of ACP Bangladesh Chapter members joined 34th WCIM 2018 conference at Cape Town, South Africa. A total of 25 abstract (11 oral & 14 poster) were from Bangladesh, which made it the country with the second highest number of presentation just after South Africa.

Participants from ACP Bangladesh Chapter at WCIM 2018, Cape Town, South Africa

Prof. Quazi Tarikul Islam was one of the key presenters in the conference. He shared his experience in the following topics.

On 18th October, 2018

1. Arboviral Infection in Bangladesh and regional situation

On 20th October, 2018

1. Clinical standard in internal Medicine
2. Living with Dengue and facing the emerging threat of Chikungunya

Prof. Quazi Tarikul Islam attended the General Assembly of ISIM and has been nominated and elected as the Executive Member of ISIM from Asian Continent.

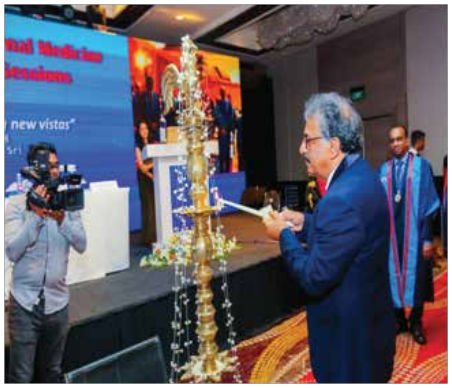
Visit to Sri Lanka

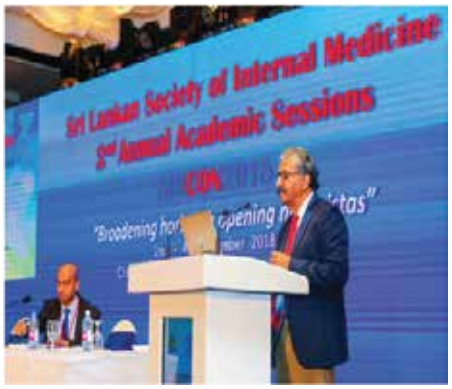
Prof. Quazi Tarikul Islam, Ex-Governor, ACP Bangladesh Chapter attended the annual conference of Sri Lankan Society of Internal Medicine (SLSIM) 2018 as ambassador of American College of Physicians (ACP).

He attended the pre session of the council of Sri Lankan Society of Internal Medicine 2018. Prof. Derek Bell, President of Royal college of Physicians of Edinburgh and Prof. Adri Kok , President of International society of Internal Medicine (ISIM) also present on the occasion.

He delivered his speech on the following topics:

1."Vitamin D deficiency - Current status and its impact on clinical practice" on 3rd November 2018.
2. ACP presentation for SLSIM on 4th November morning. It was an interactive and fruitful session. He handed over a crest to President of SLSIM on behalf of President of ACP.





Quazi Tarikul Islam, Ambassador of ACP, at Sri Lankan Society of Internal Medicine Conference

Scientific seminar on Arthritis

ACP Bangladesh Chapter organized a scientific seminar on "Arthritis" at Dhaka Club on 6th November, 2018. Three veteran ACP members talked on three major issues. Nearly 200 participants, both ACP members and non-members, attended the meeting. ACP Governor, Prof. H.A.M. Nazmul Ahasan and President of Bangladesh Society of Medicine, Prof. Billal Alam were also present on the occasion. Prof. Quazi Tarikul Islam attended as Chairman of the session.

1. Prof. Md. Mujibur Rahman talked on "Clinical Approach to A Patient with Arthritis".
2. Prof. Md. Rajibul Alam talked on "Diagnosis and Management of Rheumatoid Arthritis".
3. Prof. Md. Titu Miah talked on "Management of Post Viral Arthritis: Chikungunya".

Scientific Seminar on "Arthritis"

Chapter Excellence Award

Bangladesh Chapter receives 2018 ChapterExcellence Award. The award recognizes chapters which successfully meet the standards for managing a chapter. In order to achieve the Chapter Excellence Award, chapters must meet all basic criteria and ten optional criteria.

New Fellow in last three months

Md Ridwanur Rahman, MD FACP
Ashim Chakraborty, MD FACP
A K M Fazlul Haque, MD FACP
Md Mahfuzer Rahman, MD FACP
Abul Khayer Mohammad Musa, MBBS FACP
Aparna Das, MD FACP

New Members in last three months

Mostarshid Billah, MD
Md. Mohiuddin Khan, MBBS
Kazi Al Mamun, MBBS MD
Syed Abdullah Uddin, MBBS MD
Uttam Kumar Sarker, MBBS
Md. Kamrul Hasan, MBBS MD
Md Aminul Haque, MBBS MD
Uttam Kumar Das, MBBS
Mohammad Shafiqul Islam, MBBS MD
MOHAMMAD HASAN, MBBS MD
Ahmed Masiha Jamil, MD
Mohammad Rezaul Karim Talukder, MBBS MD
Mohammad Nezam Uddin, MBBS MD
Rubyat Chowdhury, MBBS
Azimunnessa Sheuly, MBBS
Shabnam Hoque, MBBS

Global emergence of Flavivirus infections

Dr. M A Jalil Chowdhury FCPS, MD, MACP
Professor of Internal Medicine
Bangabandhu Sheikh Mujib Medical University

Abstract: The flaviviruses are single stranded RNA viruses that cause significant diseases in human world-wide. Flaviviruses are primarily transmitted to man by the bite of infected mosquitoes or ticks and are maintained in nature in animal reservoirs. Most flaviviral infections in human are asymptomatic. The medically important Flavivirus infections in human are dengue, yellow fever, Japanese encephalitis, St. Louis encephalitis, tick-borne encephalitis, West Nile fever, and Zika virus infection. There are no effective antiviral therapies against any of the Flavivirus. So the treatment is symptomatic mostly. Vector control and vaccine are the two important aspects for the control of the disease. Vaccines are available only for yellow fever, Japanese encephalitis and tick-borne encephalitis; vaccine for dengue and west Nile are in clinical trials. Disease diagnosis is difficult as all flaviviruses are antigenically and genetically closely related.

The Viruses

The family Flaviviridae contains three genera: Flavivirus, Pestivirus and Hepacivirus. The names of these genera are derived from the Latin for yellow (flavus), and plague (pestis), and the Greek for Liver (hepatos), respectively. These three genera are grouped together in the family Flaviviridae on the basis of similar virion morphology and genomic organization. There are no serological cross-reactions between the genera. The Flavivirus genus contains 67 human and animal viruses. Yellow fever virus (YFV) is the prototype member of the Flavivirus genus. On the basis of their ecology, flaviviruses have been termed arthropod-borne viruses – arboviruses – to denote the fact that many are transmitted between vertebrate hosts by mosquitoes or ticks. It should be noted that other groups of viruses can also be called arboviruses because of similar ecology for example Toga viruses. There are two main groups of viruses: those transmitted by mosquitoes and those transmitted by ticks. The mosquito-borne viruses again can be broadly grouped as those transmitted by Culex spp. mosquitoes and those transmitted by Aedes spp. mosquitoes. The viruses transmitted by Culex spp. usually causes neurotropic diseases and the those transmitted by Aedes spp. viscerotropic or hemorrhagic diseases in human. The exception is Zika virus transmitted by Aedes aegypti but can cause severe neurological diseases in fetus. The tick-borne flaviviruses usually causes significant neurological diseases although hemorrhagic manifestations have also been reported.

The diversity of arthropod vectors, diseases characteristics and the wide geographic distribution of the flaviviruses make these viruses interesting especially if we think that most people throughout the world live in a Flavivirus endemic region. The relative ease with which some of these viruses can be introduced into new environments should also raise concerns and highlight the need for more extensive research on these viruses, both in the lab and in the field. (1)

Mosquito-borne flaviviruses

Yellow fever virus (YFV): It produces fatal hemorrhagic disease and is known as yellow fever (YF) because of the characteristic yellow skin seen in patients with suffering from the disease. The YFV was one of the first viruses to be isolated and studied in detail and, mainly for this reason, it is the type species of the genus, hence the name Flavivirus from the Latin flavus, meaning yellow.

Infection with YFV can result in disease ranging from a sub-clinical infection to severe hemorrhagic disease and even death (2). In the more severe forms of the disease, the illness is typically biphasic, progressing from an “infection” phase, through “remission” and into a period of “intoxication”. The “infection” phase of disease presents as a “flu-like” illness with fever, malaise, headache and myalgia, but is complicated by hyperemia, conjunctival injection and enlarged tender liver. Many patients recover following the “infection” phase, but others progress though a brief period of remission into the very severe period of “intoxication”. This phase of the disease is characterized by hemorrhagic disease and multi-organ dysfunction with symptoms including the characteristic jaundice, nausea, vomiting and frank hemorrhagic manifestations. Terminal patients can develop neurological manifestations, including delirium, convulsions and coma. Neurological symptoms are likely due to generalized inflammatory responses and vascular leakage into the brain rather than a specific neurotropic characteristic of the virus.

The specific mechanisms of YFV induced disease are unclear. Liver dysfunction is evidenced by jaundice and significant changes in liver enzyme profiles and hemorrhagic indications are frequently apparent in extremely ill patients (3). Unlike some viruses that cause hepatitis by stimulating an inflammatory response, YFV directly infects hepatocytes and Kupffer cells leading to a loss of hepatocyte function and acute liver injury. YFV infection can also significantly impact the vascular endothelial cell barrier, but it is not clear whether the onset of vascular leakage is due to changes in liver physiology, inflammatory cytokine response, direct infection by YFV or by an another mechanism (3).

The loss of liver function may also lead to dysregulation of the coagulation cascade, disseminated intravascular coagulation (DIC) but the exact mechanism is yet to understand.

YFV has a geographically defined distribution. Epidemic outbreaks occur in central and West Africa, Trinidad and tropical South America. Cases of YF in any other part of the world are introduced by individuals infected in an YF endemic region, who then travel to another region of the world.

Perhaps, the most perplexing characteristic of YF is its failure to become established in tropical Asia, where there are certainly sufficient susceptible mosquitoes and nonhuman primates. Many theories have been put forward to explain the geographic localization of this virus. These include: (i) the presence of residual background immunity in Asia , preventing its establishment; (ii) low vector competence of Asian strains of Aedes aegypti; (iii) the relatively low frequency and concentration of virus introduced into Asia, which may be responsible for its failure to become established; (iv) YFV in the eastern regions of Africa is significantly different from the strains that occur in Central and West Africa and (v) genetic immunity to YFV in Asians and/or Asian primates. None of these theories adequately explains the failure of YF to become established in tropical Asia, although a combination of some or all may be responsible. At present there is no risk of yellow fever in Bangladesh. However Yellow fever vaccination is mandatory for those travelling to African countries from Bangladesh or for those arriving from a country with risk of yellow fever with an apprehension for any future threat.

Dengue

There are four recognized serotypes of dengue virus (DEN 1, DEN 2, DEN 3 and DEN 4) based on cross-protection studies in human volunteers. Each may cause dengue fever (DF) or more severe forms of the disease, known as dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS). During the past 50 years, there has been an increasing incidence of DF/DHF/DSS throughout the tropics. This is largely due to increasing human population densities, increased mass movement of humans, travelling for work, for pleasure or as military personnel and increasing densities and dispersal of the vector Aedes aegypti. DHF and DSS first began to be recognized during the middle of the twentieth century and the incidence of these severe forms of dengue infection has also increased gradually with the increasing incidence of DF. The most plausible explanation for the appearance of DHF and DSS has an immunopathological basis. Humans, particularly young children with low levels of antibody against one dengue serotype, resulting either from a previous infection or as residual maternal antibody, may develop DHF or DSS if they become infected with a second dengue serotype.

In most cases DF is a self-limiting disease. In the mid-1950s, an atypical and much more serious response to dengue virus, characterized by hemorrhagic fever, thrombocytopenia, platelet coagulation and plasma leakage was first recognized in children in Southeast Asia. The rash may be particularly striking over the lower limbs. Increased vascular permeability results in haemoconcentration decreased effective blood volume, tissue hypoxia, lactic acidosis and shock. Serous effusion with raised protein content is commonly present in the pleural and abdominal cavities and occasionally in the pericardial spaces. The liver is often enlarged, and cut surfaces may have a yellowish color, suggesting fatty metamorphosis. Otherwise it may be dark and mottled, as in most cases of shock. The spleen and lymph nodes show proliferation of lymphoid cells, and necrosis of thymus-dependent areas of the spleen may be prominent. The pathology also usually reveals petechiae, ecchymosis and focal visceral hemorrhages. The pathological changes are mediated by cytokines and there is little direct evidence of viral injury. Frequency and clinical importance DF is one of the most rapidly expanding diseases in the world, with an estimated 100 million infections and more than 2 million cases of sever dengue disease, including over 500 000 cases of DHF/DSS and 25 000 fatalities occurring annually in the tropics. DF is already causing even more disease at the beginning of the twenty-first century. At the end of the second millennium, the case fatality rate for DHF/ DSS averaged approximately 5%. These figures demonstrate that DF and DHF/DSS are rapidly becoming one of the most important global public health problems in tropical countries. Some of the symptoms of uncomplicated DF resemble influenza. An incubation period of anything from 2 to 7 days is followed by an elevated temperature, headache, retro bulbar pain, lumbosacral aching pain, conjunctival congestion and facial flushing. The fever may last up to a week but may decrease for a few days and then increase again. Myalgia and bone pain, anorexia, nausea, vomiting, weakness and prostration with a decreasing pulse rate are all common. Myalgias and arthralgias are at times so severe that gives it the nick-name break-bone fever. Some children develop cough, sore throat and rhinitis. A generalized rash may appear on the second day and be replaced by a secondary maculopapular or morbilliform rash on days 3–5, spreading from the trunk to the face and the limbs. The rash may desquamate. The peripheral white blood cell count may be depressed with an absolute granulocytopenia. Hemorrhage is occasionally seen with a positive tourniquet test. Myocarditis and neurological disorders are also occasionally associated with DF. Convalescence may be prolonged, with generalized weakness and depression. The acute phase of DHF also lasts from 2 to 7 days but, in contrast to DF, rash and myalgia occur less frequently. At the early stage of the disease, hemorrhagic manifestations are mild and appear as scattered tiny petechial hemorrhages on the skin, which may bruise, or in the buccal cavity and

conjunctivae. A positive tourniquet test is usually observed at this early stage. Occasionally, there is severe bleeding from the nose, gums and gastrointestinal tract. The liver is often enlarged and generalized lymphadenopathy is observed in approximately 50% of the cases.

The critical stage is reached by the end of the febrile period. A rapid drop in temperature is accompanied by varying degrees of circulatory disturbances, with sweating, restlessness and cold extremities. In milder cases, these signs are minimal and there is rapid recovery following treatment. In more severe cases, the disease progress to shock that is acute and occurs on or after the third day of illness. The patient usually complains of acute abdominal pain and becomes very restless. The skin is cold and clammy and the pulse becomes rapid and weak. Patients in shock usually remain conscious almost to the terminal stage. If proper treatment is not given, the patient deteriorates rapidly into the stage of profound shock. Circumoral and peripheral cyanosis are common. The skin is blotchy, mottled and purplish. Patients not treated usually die within 12–24 h after shock ensues. Infrequently, encephalitic signs with intracranial hemorrhage or hepatic failure occur with a poor prognosis. Convalescence in patients with DHF, even in shock cases, is usually short and uneventful. The course of uncomplicated DHF/DSS is approximately 7–10 days. Unusual manifestations of dengue has been observed in some situations and termed as expanded dengue syndrome. Dengue may be confused with Zika and Chikungunya.

Bangladesh witnessed the first large outbreak of dengue in the year 2000 with official record of 5551 cases with 93 fatalities. Because of mass awareness and prompt effective control measures the disease became under control. From 2015 the incidence of dengue started to rise again with few recorded deaths. In 2018 the country experienced an unusual outbreak of dengue with highest number of recorded case. There is a change in the presentation also. In view of the changing pattern of dengue transmission and diseased manifestations Bangladesh has adopted a new guideline of the management of Dengue (4).

Zika Virus

Most people infected with Zika virus have no signs and symptoms, or only have mild symptoms. The most common symptoms of Zika are fever, rash, headache, joint pain, conjunctivitis, and muscle pain etc.

Zika virus infections during pregnancy have been linked to miscarriage and can cause microcephaly. Zika virus also may cause other neurological disorders such as Guillain-Barre syndrome. Zika virus infection is a mosquito-borne viral infection. It is spread by the Aedes species of mosquito, most commonly Aedes aegypti and Aedes albopictus. Aedes mosquitoes also transmit dengue and chikungunya viruses. Zika can be passed through sex from a person who has Zika

to his or her sex partners. Virus has been detected in semen longer than in blood.
The Zika virus, first identified in Uganda in 1947. Outbreaks did not occur outside of Africa until 2007, when it spread to the South Pacific. In 2015, the Zika virus spread to Central and South America. Aedes species of mosquitos that are known to transmit the Zika virus are not suited to the Canadian climate, so Canadians are very unlikely to contract the infection at home, but cases have been reported of people returning to Canada with Zika infection after travelling to areas where there are Aedes mosquitos and active viral transmission.
The CDC has warned pregnant women in any trimester to "consider postponing travel" to a number of countries and territories where Zika transmission is ongoing. A list of countries can be found on the CDC website. Bangladesh is at risk of Zika virus infection both imported and local transmission. First serological case of Zika virus infection was detected in Chittagong, the port city of Bangladesh in 2014 (5).

Japanese encephalitis

Japanese encephalitis virus (JEV) is transmitted by Culex spp. mosquitoes in an enzootic cycle, pigs being the most important component and birds less important (6). Although the disease has been recognized in Japan since the nineteenth century, the virus was first isolated and characterized in 1933 (7). Since then JEV has been identified throughout Asia including India and finally appearing in Australia in mid 1990s.
Infection with JEV causes an acute non-specific febrile illness that consists of rapid onset with headache, myalgia, diarrhea and vomiting. In some patients, the disease can be complicated by neurological signs including opisthotonus, acute flaccid paralysis, convulsions, mental confusion, mask-like facies and cogwheel rigidity (8). Severe disease can progress to severe encephalitis, meningitis, loss of conscious, coma and death. Neurological sequelae occur in about 30% of those who survive severe disease. These sequelae can include seizures, physical disabilities and cognitive deficits (9).

Chikungunya

Chikungunya virus belongs to the genus alphavirus of the Togaviridae family. As it is an arbovirus and is transmitted by Aedes spp mosquitoes (Aedes aegypti and Aedes albopictus) and has got similarities in clinical presentation with other disease caused by Flavivirus so it is discussed here. The virus was first identified in 1952–53 during an outbreak that occurred in the Makonde Plateau in the southern region of Tanzania. The name “chikungunya” is derived from a Makonde word meaning “that which bends up”, and refers to the bending posture of individuals infected with the virus (10).

Chikungunya is characterized by sudden rise of fever usually accompanied by joint pain. Other frequent signs and symptoms include body ache, headache and rash. The joint pain is at times very debilitating, but usually lasts for a few days or may be prolonged. That means the virus may cause acute, sub-acute or chronic diseases. Most patients recover fully, but in some cases joint pain may persist for several months or even years. Serious complications are not common, but may hasten death in older people. Often symptoms are mild and may go unrecognized, or mis diagnosed in areas where dengue is also common.

Chikungunya was first identified in Tanzania in the early 1952 and has caused periodic outbreak in Asia and Africa since the 1960s. The earliest confirmation of disease caused by chikungunya virus in Asia was reported from the Philippines in 1954. Outbreaks have subsequently been reported in southern and Southeast Asia, including Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Laos, Malaysia, Maldives, Burma/Myanmar, Pakistan, Saudi Arabia, Singapore, Sri Lanka, Taiwan, Thailand, Timor, Vietnam, and Yemen (11-14). Outbreaks' are often separated by periods of more than 10 years.

In 2017 there was an outbreak of chikungunya in Bangladesh affecting 17 out of 64 districts, Dhaka being the worst hit district. 984 cases confirmed by RT-PCR and 13176 clinically confirmed cases were officially reported (15). In 2018 there are again more cases of dengue are being reported with very less number of chikungunya.

Historically Chikungunya was known as Dengue. It was only after the outbreak of Chikungunya in Tanzania that it was identified as a separate disease. Dengue and Chikungunya are viral diseases with very similar symptoms (Table I). Chikungunya is caused by a Togaviridae alphavirus, while dengue is caused by a Flavirideae Flavivirus. Both have common symptoms like high fever, headache, eye pain, joint pain, rashes and lethargy. Both viral infections are spread by Aedes mosquitoes. However identifying the exact disease is critical since Dengue is much more dangerous and may need emergency medical intervention. It is also possible for a patient to have Dengue and Chikungunya at the same time (coinfection). The most distinguishing feature of Dengue is bleeding. However Chikungunya joint pain may last for years causing long term quality of life issues.

Tick-transmitted Flaviviruses

The Tick-born encephalitic (TBE) virus complex consists of antigenically and genetically related groups of viruses that are transmitted to vertebrate species by hard ticks, particularly Ixodes spp. Most of the viruses in the TBE virus complex produce encephalitic disease in human but few others may also produce hemorrhagic disease.

Treatment

Till date there are no antiviral drugs approved for use in human for Flavivirus infections. Supportive care is the mainstay of treatment. High concentration of the antiviral agent ribavirin has been shown antiviral activity against DENV and YFV in cell culture, but this has not been correlated in animal studies. Additionally, high- titers, virus neutralizing, humanized monoclonal antibodies haven proven efficacious both prophylactically and therapeutically in animal models of YFV and West Nile Virus. Licensed vaccines are available against JE, TBE and YF; there are no licensed vaccines against dengue.

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Conclusion

This is the second newsletter of ACP Bangladesh Chapter during my tenure. In addition to online version, we are trying to publish a hard copy for distribution especially amongst local Fellows and Members. During the last six months, we had busy schedule of attending BOG meeting in USA and regional ACP chapters. We are committed to arranging periodic CME locally. We will try to organize Medical students in the near future. Our BSM conference was held from 7th to 9th December, 2018. We hope for a successful road ahead of us.

H.A.M. Nazmul Ahasan
Governor
ACP- Bangladesh Chapter

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