Parkinson's Disease and Other Movement Disorders

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**MOVEMENT DISORDER SOCIETY OF BANGLADESH** 

Society for parkinson's disease and other movement disorders





#### **MOVEMENT DISORDER SOCIETY OF BANGLADESH**

Society for parkinson's disease and other movement disorders







**President**Society of Neurologist of Bangladesh

I am delighted to know that "1st national congress on movement disorder" is going to be held on 26th -27th, June 2018 under the auspices of Movement Disorder Society of Bangladesh. I take great pride in welcoming and congratulating all the attendees of this conference.

Movement disorder is one of the expanding and complicated branch of neurology and it demands special attention from healers. Parkinson's disease is one of the most common movement disorders, impacting 15-20 people out of every 100,000. The number may seem small, but the disease has an immense impact on these families, with annual high cost per patient. In Bangladesh not many people are working to fight the disease.

In this conference respected national and internationally renowned speakers will share, discuss and debate on new developments and scientific advancements that will impact the future of the related fields.

I wish every success of "1st national congress on movement disorder" 2018.

Prof Dr Firoz Ahmed Quraishi







**Secretary General**Society of Neurologists of Bangladesh

# Convenor's speech





**Convenor**Movement Disorder Society of Bangladesh

I am glad to know that "1st national congress on movement disorder" is going to be held on 26th -27th, June 2018 under the patronage of movement disorder society of Bangladesh. Here we more than 200 neurologists, along with neurosurgeons, internists and physiatrists are facing enormous challenge in managing sufferers from movement disorders. Still we need more to come forward in this field. Hopefully young neurologists still in residency or fellowship are focusing in this arena.

I want to take this opportunity to encourage all attendee and participants in this unique conference in order to take advantage of the most recent scientific discoveries and milestones in the field of movement disorders. I believe the more you participate, the more you take away from a conference, and I would encourage your active participation by taking advantage to interact with these renowned neurology leaders.

This congress is just a novel addition in this field.

I wish to extend a warm welcome to all attendees of the "1st national congress on Movement Disorders" at Dhaka, Bangladesh. This is second large gathering in this auditorium after last CME on 2014. I must congratulate and honor for enthusiasm seen from our participants and faculties to join here.

These are interesting time to be a neurologist. And also these are exciting times to be a member of movement disorder society of Bangladesh (MDSOB). Interesting times for a neurologist, because we are reaping the harvest of the seeds sown by our pioneers. And so I begin by raising a toast to these pioneers. And exciting times—we noticed that our association membership has exponentially increasing in last few years. We have a community whose members are contributing new techniques and treatments, achieving positions in international association and organizing international conferences. A large part of our membership is young, they are emerging as key opinion leaders in their fields. They are establishing facilities not just in large cities, but smaller towns too. It is a privilege for us, and it is the responsibility of us, to leave them a legacy that they can carry out.

In recent years neuroscience has made impressive advances, but eventually many basic regulatory mechanisms of different movement disorders remain incomprehensible. Even the etiology of Parkinson's disease remains elusive, though some fascinating work on both nature and nurture is underway. Hope that different thoughts, relentless research and multiple logical approach will lead to substantial improvements in management these ailments in near future.

Prof Dr Abu Nasir Rizvi





### Member Secretary's Address





**Member Secretary**Movement Disorder Society of Bangladesh

Dear participants, honorable guests, national and foreign faculties welcome all.

In this century non-communicable diseases are the main burden of health issue. Among them neurological disorders are the major part. History of neurology in Bangladesh is not so long. My honor to Prof Dr M A Mannan , founder of neurology in Bangladesh, who took responsibility to develop neurology specialty in Bangladesh . I also mention the name of Prof Dr Anisul Haque, Prof Dr AKM Anwar Ullah, Prof Dr Quazi Deen Mohammad for their dedication to flourish the subject.

It is mentioning here that main organization of neurologists of Bangladesh is Society of Neurologists of Bangladesh. Movement Disorder Society of Bangladesh will work only about movement disorder related activities.

To serve movement disorder patients, weekly movement disorder clinic was started in 1999 in Bangabandhu Sheikh Mujib Medical University (BSMMU), neurology out patient department (OPD). Prof Dr Anisul Haque took initiative to start this weekly clinic. He also encouraged young neurologists to attend International Movement Disorder Congress. At that time he formed adhoc committee of Movement Disorder Society of Bangladesh . Later on we formally organize convening committee of Movement Disorder Society of Bangladesh in 2014. After four years we are organizing 1st National Congress. It is a milestone of the society.

The theme of our meeting is movement disorders and its magnitude. Movement disorders are common and account for 3-8% of neurological disorders with a crude prevalence rate varying between 31(>60+yrs) to 45/100,000 and these are twice more frequent in rural areas in our neighboring country. Also in a hospital-based study, movement disorders formed 20% of neurological patients. Assuming a nearby picture is also prevailing here. With such magnitude of sufferers it is difficult to tackle the situations by few hundred neurologists, neurosurgeons and trained internists. So we need more caring, energetic, enthusiastic and innovating community of neurologists to come forward. Each of us can inspire others to promote positively to our efforts either actively or simply as supporting members.

I am owing gratitude to International Parkinson and movement disorder society (Asian-Oceanian Region) for extremely useful favor for this congress under the quota of Developing World Education Program (DWEP). I also appreciate the moral and capital support from local pharmaceutical companies.

I cannot finish without thanking our wonderful tender participant for making life easy for everyone during the meeting. Your humble Convenor Prof. Dr. Hasan Zahidur Rahman

Prof. Dr. Hasan Zahidur Rahman





Among neurological diseases, movement disorders are critical to diagnose and mainly on clinical basis. To manage movement disorder patients, we have to depend only on pharmalogical

treatment. We have no specialized physiotherapist for Parkinson's disease patients. For management of advanced Parkinson patients, Levodopa patch and Apo morphine infusion pump is not available in our country due to high cost. Deep Brain Stimulation (DBS) is started in a limited number. It is also highly payable.

BSMMU has given appointment to Prof Dr Tipu Zahed Aziz, the pioneer DBS surgeon of the world, as visiting professor. So, in near future, it is possible to start DBS in this university.

Inj Botulinum Toxin is available in Bangladesh for last two decades. It is mainly given in Dhaka. If it can be given in other divisional / district level hospital, where neurology department is existing, the patients will be benefited.

We encourage young neurologists to avail training on movement disorders. If advanced treatment option of Parkinson diseases become available in Bangladesh, patients will be benefited.

On behalf of society, my heartiest thanks to my senior teachers, colleague and junior neurologists for their inspiration and encouragement.

We are in debt to International Parkinson and Movement Disorder Society (Asian- Oceanian Region) for financial support of this congress under Developing World Education Program (DWEP). I also acknowledge pharmaceutical companies for their support. Thank you all for patience hearing. Long live Bangladesh.

Dr Md Ahsan Habib



#### **Executive Committee 2014** Movement Disorder Society of Bangladesh



Prof. Dr. Hasan Zahidur Rahman Convenor



Prof Dr Abu Nasir Rizvi Co-Convenor



Dr Md Ahsan Habib Member Secretary



Dr Subash Kanti Dey Joint Secretary

Dr M.S Jahirul Hoque Chowdhury

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Dr Abu Nayeem Organizing Secretary



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Prof. Dr Narayon Chandra saha Dr Tauhidul Islam Chowdhury Member



Member



Dr Murshed Baqui Member



**Prof Dr Anisul Haque** Advisor



**Prof Dr AKM Anwar Ullah** Advisor



Prof Dr Quazi Deen Mohammad Advisor



Dr Abu Jafor Md Salauddin Member



Dr Md Jahidul Islam Member



Dr Md Shahidullah Member



**Prof Rezaul Karim Khan** Advisor



Prof Dr Firoz Ahmed Quraishi Advisor



**Prof Dr Mansur Habib** Advisor



Dr Mohammad Selim shahi Member



**Dr Afzal Momin** Member



Dr Abdul Alim Member



Prof Dr Md badrul Alam Advisor





# 1st National Congress Movement Disorder Society of Bangladesh

#### **Organizing Committee**

Prof Dr Hasan Zahidur Rahman

Prof Dr Abu Nasir Rizvi

Dr Md Ahsan Habib

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Dr Ahmed Hossain Chowdhury (Harun)

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Dr Md Khairul Kabir Patwary

Dr SK Mahbub Alam

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Dr Mohammad Selim Shahi

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Dr Sukumar Majumder

Dr Biplob Kumar Das

Dr Pallab Kanti Saha

#### **Reception Sub-committee**

Dr Abu Jafor Md Salauddin

Dr Afzal Momin

Dr Abdul Alim

Dr Nazrul Islam

Dr. Mohammad Moshiur Rahman





# 1st National Congress Movement Disorder Society of Bangladesh

Supported by:



International Parkinson and Movement Disorder Society

Developing World Education Program

#### **Meeting Agenda**

#### Day 1: 26 June 2018 Tuesday

8:00 - 8:30 Kit collection Time Presentation

Session: I

Chairman: Prof. Dr. Anisul Haque

Prof. Dr. Deen Mohammad

Moderator: Dr. Subash Kanti Dey

8:30 – 9:10 Topic 1

Phenomenology of movement disorder

Speaker: Dr. Jawad A Bjwa, Saudi Arabia

9:10 – 9:50 Topic 2

**Dopeminergic system and Parkinson's Disease** 

Speaker: Dr. Abdul Kader Shaikh, Bangladesh

9:50 - 10: 30 Topic 3

**Imaging in Movement Disorders** 

Speaker: Dr. Mona Tiwari, India

**10:30 - 11:10 Inaugural Session** 

11:10 - 11:40 **Tea Break** 



Session: II

Chairman: Prof. Dr. M A Hannan

Prof. Dr. Sk Sader Hossain

Moderator: Dr. Md. Zahid Raihan

11:40 – 12:40 Topic 4

Role of DBS in Parkinson's Disease

Speaker: Prof. Tipu Zahed Aziz, England

12:20 - 1:00 Topic 5

Non motor symptoms of Parkinson's Disease

Speaker: Prof. Dr. Hrishikesh Kumar, India

1:00-2:00 Lunch

Session III

Chairman: Prof. Dr. Firoz Ahmed Quraishi

Prof. Dr. ATM Mosharof Hossain

Moderator: Dr. Khairul Kabir Patwary

2:00 – 2:40 Topic 6

DBS for hyperkinetic movement disorders

Speaker: Dr. Jawad A Bjwa, Saudi Arabia

2:40 — 3:20 Topic 7

**Atypical Parkinsonism** 

Speaker: Prof. Dr. Hrishikesh Kumar, India

3:20 – 4:00 **Tea Break** 



**Session: IV** 

Chairman: Prof. Dr. Rezaul Karim Khan

Prof. Dr. Badrul Alam

Moderator: Dr. MS Jahirul Hoque Chowdhury

4:00 – 4:40 Topic 8

Wilson's disease

Speaker: Prof. Dr. Mohit Bhatt, India

4:40 – 5:20 Topic 9

**Movement disorders emergencies- Video** 

Speaker: Prof. Dr. Mohit Bhatt, India

5:20 – 5:40 **Closing Remarks** 

7:30 - 9:00 **Dinner (Pan Pacific Sonargaon Hotel)** 







#### Day 2: June 27, 2018 Wednesday

8:30 –9:00 Kit Collection Time Presentation

Session: V

Chairman: Prof. Dr. Muniruzzaman Bhuiyan

Prof. Dr. Narayon Saha

Moderator: Dr. Md. Shahidullah

9:00 - 9: 40 Topic 10

**Botulinum Toxin** 

Speaker: Prof. Dr. Abu Nasir Rizvi, Bangladesh

9:40 – 10:10 Live Demonstration of Inj Botulinum Toxin

Session: VI

Chairman: Prof. Dr. Shakhwat Hossain

Dr. Mohammad Hossain

Moderator: Dr. Abu Nayeem

10:-10 - 10: 50 Topic 11

Outcome of DBS in generalized dystonia

Speaker: Prof. Tipu Zahed Aziz, England

10:-20 - 11: 00 Topic 12

Psychogenic movement disorder

Speaker: Prof. Dr. Anisul Haque, Bngladesh

10:50 - 11: 20 Tea Break



**Session: VII** 

Chairman: Prof. Dr Azharul Hoque

Prof. Dr. Abu Nasir Rizvi

Moderator: Dr. Mohammad Selim Shahi

11:-20 - 12:00 Topic 13

**Ataxia** 

Speaker: Prof. Dr. AKM Anwar Ullah, Bangladesh

12:00 – 12:40 Topic 14

**Tremor** 

Speaker: Prof. Dr. Mansur Habib, Bangladesh

12:40 – 1:20 Topic 15

Chorea, Ballism and Myoclonus

Speaker: Prof. Dr. Ashraf Ali, Bangladesh

1:20 – 1:50 Closing Session& Lunch





### Day- 1 26 June 2018, Tuesday

### Session: I

Time: 8:30 -10:30

Chairman: Prof. Dr. Anisul Haque

Prof. Dr. Deen Mohammad

Moderator: Dr. Subash Kanti Dey

**O1.** Phenomenology of movement disorder Speaker: Dr. Jawad A Bjwa

O2. Dopeminergic system and Parkinson's Disease Speaker: Dr. Abdul Kader Shaikh

**O3.** Imaging in Movement Disorders Speaker: Dr. Mona Tiwari





Dr. Jawad A Bajwa
Director, Parkinson's Movement Disorders and Neurorestoration program

Director, Parkinson's Movement Disorders and Neurorestoration program
National Neuroscience Institute
King Fahad Medical City
Riyadh, Saudi Arabia















Dr. Mona Tiwari
Head of Diagnostic Neuroradiology
Institute of Neurosciences
Kolkata, India









#### Phenomenology of Movement Disorders

Dr. Jawad A Bajwa

This talk will enable the audience to better understand patterns of various common movement disorders through video illustration. It will highlight key clinical features and differences among various movement disorders that we consider to establish clinical diagnosis.

#### Parkinson's disease and the role of Dopaminergic System

Dr Ahdul Kader Shaikh

Parkinson's disease is the second commonest neurodegenerative disease after Alzheimer's disease. Even though the principal pathological feature of Parkinson's Disease is degeneration of Dopaminergic neurons in the basal ganglia, leading to the classical motor features of bradykinesia, rigidity, gait impairment and tremor, research has also shown there is intra-cytoplasmic inclusion body (known as Lewy body) deposition in neuronal structures of olfactory system, peripheral automatic nervous system, dorsal motor nucleus of the vagus nerve in the lower brainstem and then sequentially the upper brainstem and cerebral hemispheres leading to the non motor symptoms like constipation, anosmia, sleep disorder, autonomic nervous system dysfunction, mood disorders, and cognitive impairment/dementia.

The Basal ganglia, which is mainly implicated in the pathogenesis of Parkinson's disease, acts as a clearing house of motor activities where, during an intended or projected movement, on set of activities is facilitated and all other unnecessary ones are suppressed. It consists of caudate nucleus, putamen, and globus pallidus. The subthalamic nucleus and the substantia nigra (containing the D1 and D2 Dopamine receptors) are also considered parts of the basal ganglia due to their close connection with the above mentioned structures. From the neostratium, a direct and indirect pathway arises traversing substantia nigra, globus pallidus, subthalamic nucleus, thalamus all the way up to the cerebral cortex to complete the striatonigral pallid-thalamo-cortical loop. The direct pathway (the striatonigral pallid-thalamic pathway), involving the D1 Dopaminergic receptors is an excitatory pathway, involving Glutamate, and hence has a facilitating influence on cortical activity. On the other hand, the indirect pathway, involving the D2 Dopaminergic receptors, has an inhibitory influence on the cerebral cortex, mediated mainly by the neurotransmitter GABA. In Parkinson's disease, the direct pathway is impaired leading to decreased facilitation of the cortical activity leading to the classical hypokinetic features of P.D in the form of bradykinesia, rigidity and gait impairment. Lastly, the neurotransmitter Acetylcholine also has a mixed but mainly excitatory effect on the Putamen and hence is also implicated in the pathogenesis of Parkinson's disease









#### Imaging in Movement Disorders

Dr. Mona Tiwari

In the past, for many years, the detection and diagnosis of movement disorder hinged mainly on clinical acumen and imaging only excluded the secondary cause like tumour, subdural hematoma and other pathologies.

However, with strides in technology and modern advances in imaging, the scenario has changed.

Structural MR imaging including functional MR imaging are also available for diagnosis and management of movement disorder patients.

Structural MR imaging has role in planning of surgical deep brain stimulation and accurate planning leads to a successful DBS procedure.

MR imaging has utility in differentiating Parkinson disease from atypical Parkinsonian disorders on the basis of structural abnormalities in basal ganglia and other structures.

Imaging can be used to confirm the diagnosis and track the disease progression. Changes can be detected by iron and neuromelanin sensitive MR imaging techniques.

Neuromelanin sensitive MR imaging allows detection of loss of neuromelanin containin dopamenigeric neurons in substantia nigra. The neuromelanin sensitive MRI has the potential to become an

The neuromelanin sensitive MRI has the potential to become an imaging bio-marker of Parkinsons disease for subjects at risk of developing the disease.

PET and SPECT are also being used to evaluate the functional change associated with Parkinson disease and other neuro-degenerative disorders. But MR scanning is more widely available and does not use any ionizing radiation. These features make MRI more attractive to use as an imaging bio-marker.

The neuromelanin sensitive MRI imaging has high sensitive and specificity in differentiating Parkinson's disease patient from non-Parkinson's disease age controls even in early disease stage.

Studies have also used neuromelanin sensitive MRI techniques to discriminate essential tremor from early stage tremor dominant Parkinson disease and this can be useful clinical tool in evaluation of tremor disorder as well.

Alterationsin functional connective can be identified with functional MRI and researchers are further exploring these connectivity changes.

Further advancement and development in MR offer additional diagnostic possibilities for early and more accurate detection of Parkinson disease.

The imaging will not only help in detection and diagnosis but can also influence the direction of therapeutic research. This is of vital importance in diseases like progressive supra-nuclear palsy, cortico-basal degeneration and multi-system atrophy which presently have no adequate treatment.





### Day- 1 26 June 2018, Tuesday

### Session: II

Time: 11:40 - 1:00

Chairman: Prof. Dr. M A Hannan

Prof. Dr. Sk Sader Hossain

Moderator: Dr. Md. Zahid Raihan

**O1.** Role of DBS in Parkinson's Disease Speaker: Prof. Tipu Zahed Aziz

**O2.** Non motor symptoms of Parkinson's Disease Speaker: Prof. Dr. Hrishikesh Kumar





Prof. Dr. Tipu Zahed Aziz
Head of functional neurosurgery
John Radcliffe Hospital
Oxford, England









Prof. Dr. Hrishikesh Kumar Head, Department of Neurology

In charge, Parkinson's disease and Movement Disorders Program
Institute of Neurosciences,
Kolkata, India



#### Role of DBS in Parkinson's Disease

Prof. Dr. Tipu Aziz

Deep brain stimulation (DBS) is a surgical treatment in which stimulation electrodes are permanently implanted in basal ganglia to treat motor fluctuations and symptoms of Parkinson's disease (PD). Subthalamic nucleus (STN) and globus pallidus internus (GPi) are the commonly used targets for DBS in PD. However, depending on the symptom constellation the thalamus and pedunculopontine nucleus are targeted. Many studies have compared motor and non-motor outcomes of DBS in both targets. However, the selection of PD patients for DBS targets is still poorly studied. There are published studies comparing STN DBS and GPi DBS. GPi DBS is better for patients with problems in speech, mood, or cognition while STN DBS is better from an economic point of view as it allows much reduction in antiparkinson medications and less battery consumption.







#### Non motor symptoms of Parkinson's Disease

Prof. Dr. Hrishikesh Kumar

Non – motor symptoms are almost ubiquitous in patients with Parkinson Disease (PD) and often they are the major determinant of quality of life. But there is a tendency to stress upon motor symptoms of PD and neglect the non-motor symptoms. UK Brain bank criteria for diagnosis of PD has not helped by completely ignoring the non – motor symptoms. But last decade has seen resurrection of interest in non-motor symptoms in PD. Lot of work has been published, questionnaires have been validated and task force has been instituted to give non-motor symptoms their due recognition. The International Movement Disorders Society recently commissioned task force to classify PD according to non-motor symptoms. These symptoms bear further importance as many of them usually precede the motor symptoms by years and can provide that window of time for the neuroprotection in future.

Non motor symptoms (NMS) in PD incudes a wide spectrum of symptoms. They include cognitive decline, psychiatric disturbances (depression, psychosis, impulse control disorder), constipation, symptoms related to postural hypotension, urinary symptoms, sexual dysfunction, sleep problems (insomnia, daytime somnolence, REM sleep behaviour disorder etc) and pain syndromes. Typically NMS become more prevalent with the progression of the disease; but many of them antedate the first occurrence of motor signs. Notable among these prodromal symptoms are RBD, constipation and depression. Although there is insufficient evidence to explain the pathophysiology of NMS, it is generally accepted that the neurotransmitters other than dopaminergic system are frequently involved. Evidently levodopa is not very effective in treating NMS. Unfortunately effective treatment of NMS is still a far cry in majority of cases. The presently available treatment for motor symptoms of PD (levodopa, dopamine agonist, Amantadine, Anticholinergics, Deep Brain stimulation surgery) can even lead to worsening of NMS in some of the patients.

The present talk will emphasize on importance of recognizing and treating NMS in patients with PD. Current understanding about underlying pathophysiology and treatment will also be discussed. Potential for the NMS to define prodrome of PD that may enable early diagnosis will also be explored.

Day- 1 26 June 2018, Tuesday

Session: III

Time: 2:00 - 3:20

Chairman: Prof. Dr. Firoz Ahmed Quraishi

Prof. Dr. ATM Mosharof Hossain

Moderator: Dr. Khairul Kabir Patwary

**O1.** DBS for hyperkinetic movement disorders

Speaker: Dr. Jawad A Bjwa

02. Atypical Parkinsonism

Speaker: Prof. Dr. Hrishikesh Kumar









#### DBS for Hyperkinetic Movement Disorders

Dr. Jawad A Bajwa

This presentation will discuss clinical utilization of Deep Brain Stimulation (DBS) in Tremor, Dystonia and other related disorders. The talk will focus on sharing patient specific cases to better explain the decision making and long term outcomes.

#### Atypical Parkinsonism

Prof. Dr. Hrishikesh Kumar

#### **Key Points:**

- 1. Atypical Parkinsonism is a group of neurodegeneration condition with underlying Synuclein or Tau protein aggregates in neurons and glial cells.
- 2. They are characterized clinically by levodopa unresponsive Parkinsonism along with other defining features for individual types.
- 3. Clinico-pathologial correlation is not always accurate.
- 4. Treatment remains unsatisfactory.
- 5. Exploring pathology directed treatment in future would be the way move forward. Introduction of the term "Atypcal Parkinsonism": The word "Parkinsonism" has often been used

loosely for apparent slowness in patients. UK Brain criteria is less ambiguous and defines Parkinsonism or Parkinsonian syndrome as combination of bradykinesia with either of rigidity, tremor and gait imbalance. Bradykinesia remains the essence of Parkinsonism. It denotes progressive reduction in speed and amplitude of repetitive alternative movement like finger tap or foot tap.

The term Parkinsonism encompasses three broad groups: Idiopathic Parkinson's disease or Parkinson's disease (PD), Secondary Parkinsonism and Atypical Parkinsonism. Atypical Parkinsonism is a group of neurodegenerative disorder characterized pathologically by intracellular deposition of abnormal protein aggregates. It includes Progressive Supranuclear Palsy (PSP), Corticobasal Degenration (CBD), Multi System Atrophy (MSA), Dementia with Lewy Body (DLB).

Neuropathlogical hallmark relevant to clinical presentation: Awareness of neuropathology is important to understand the clinical overlaps among various subtypes. According to the nature of intracellular protein deposition, Atypical Parkinsonism has been clubbed into two groups-Synucleinopathies and Taupathies.

MSA, DLBD and PD are synucleinopathy whereas PSP and CBD are taupathies. In PD and DLBD, alpha-synuclein aggregates are found in neurons and there is formation of Lewy bodies. In MDA, alpha-synuclein aggregates are found in oligodendrocytes. In PSP and CBD, tau protein aggregates generally affect neurons but also affects oligodenrocytes and astrocytes.







The aggregation of misfolded proteins leads to degeneration of affected cell population. Moreover disease progression also is helped by spread of these misfolded protein aggregates into anatomically connected regions.

Clinical presentation and differentiation: Parkinsonism remains the central clinical feature but unlike PD, it is relatively unresponsive to levodopa. The features that distinguish individual subtypes are mentioned in the following table. These features will be discussed in greater detail and representative videos would be used in the talk. Clinical overlaps between various subtypes will also be elucidated.

	Neuropathology	Sailent Clinical points (apart from akinetic rigid syndrome)	Diagnosis
PSP	Taupathy	Gaze palsy, Frontal lobe signs, Backward falls, spastic speech, Swallowing difficulty, Applausesing	MRI- Mid brain atrophy (Humming brin sign, Morning glory sign)
CBD	Taupathy	Progressive Asymmetrical rigidity, dystonia and Apraxia, Alien limb phenomenon, Stimulus sensitive myoclonus	MRI- Asymmetrical atrical atrophy of parieto-frontal cortex
DLB	Synucleinopathy	Early dementia with pronounced attention deficit, executive dysfunction and visuo-spatial abonormailites; Vivid visual hallucination, Fluctuating congnition.	MRI-Atrophy of eaudate nucleus, putamen and thalamus FDG-PET: Hypometabolism in Visual and visual association area
MSA	Synucleinopathy	Cerebellar signs, Pyramidal signs, Autonomic dysfuction (postural hypotension and urinary problems)	MRI- Cerebellar and Pontine atrophy; Putaminal ring sign, Hot-cross bun sign Sphincter EMG: Denervation Cardiac MIBG: Normal labelling suggesting preganglionic autonomic failure



### Session: III

Time: 4:00 - 5:20

Chairman: Prof. Dr. Rezaul Karim Khan

Prof. Dr. Badrul Alam

Moderator: Dr. MS Jahirul Hoque Chowdhury

01. Wilson's disease

Speaker: Prof. Dr. Mohit Bhatt

02. Movement disorders emergencies- Video

Speaker: Prof. Dr. Mohit Bhatt









Prof. Dr. Mohit Bhatt

Director - Neurosciences Kokilaben Dhirubhai Ambani Hospital & Medical Research Institute Mumbai, India



#### Wilson's disease

Prof. Dr. Mohit Bhatt

Wilson disease (WD) is an inherited disorder of copper metabolism. It results in excessive copper deposition in the body, primarily the liver and brain. The disease has a wide spectrum of clinical features including subclinical or overt liver failure, hemolysis, various movement disorders, and cognitive and behavioural problems. The disease has a long preclinical phase and usually manifests in children and young adults. In absence of treatment the symptoms progress leading to increasing disability and death. However, with treatment the disease-related disability can be reversed and patients can resume normal lives at par with their peers.

This talk will illustrate the neurological features of WD and discuss the strategies for early recognition and diagnosis of WD. It will also highlight the current understanding of disease mechanism. In addition the session will focus on the treatment challenges, protocols as well as disease-monitoring tools for WD.







### Movement disorders emergencies- Video

Prof. Dr. Mohit Bhatt

Different movement disorders related emergency condition will be shown by video. It would be useful to students, physicians and neurologists. Day- 2 27 June, 2018 Wednesday

### Session: V

Time: 9:00 - 10:10

Chairman: Prof. Dr. Muniruzzaman Bhuiyan

Prof. Dr. Narayon Saha

Moderator: Dr. Md. Shahidullah

01. Botulinum Toxin

Speaker: Prof. Dr. Abu Nasir Rizvi

02. Live Demonstration of Inj Botulinum Toxin









Prof. Dr. Abu Nasir Rizvi
Professor
Department of Neurology
Bangabandhu Sheikh Mujib Medical University
Shahbag, Dhaka



### Botulinum Toxin Therapy

Prof. Dr. Abu Nasir Rizvi

Botulinum toxin is an exciting therapy that is applicable to a wide variety of disorders in many field of medicine. As botulinum toxin must be injected locally, physician must process an appropriate expertise in order to deliver the therapy effectively. Unintended intoxication with botulinum toxin occurs rarely but its high fatality rate makes a great concern in medical community.

Clinical development of botulinum toxin began late 1960 with the search of an alternative to surgical realignment of strabismus. At that time surgery of extra ocular muscle was the sole treatment. Now a modified botulinum toxin is using as drugs for lot of diseases.

In last 10years in Bangabandhu Sheikh Mujib Medical University in Botox clinic we have used botulinum toxin in 252 cases in different diseases. And other then few we have very good outcome in using this botulinum toxin in different movement disorder cases, where with only oral drugs have vary unsatisfactory out come.





### Day- 2 27 June, 2018 Wednesday

### Session: VI

Time: 10:10 - 11:00

Chairman: Prof. Dr. Shakhwat Hossain

Dr. Mohammad Hossain

Moderator: Dr. Abu Nayeem

**O1.** Outcome of DBS in generalized dystonia Speaker: Prof. Tipu Zahed Aziz

**O2.** Psychogenic movement disorder Speaker: Prof. Dr. Anisul Haque





Prof. Dr. Anisul Haque
Ex-chairman, Department of Neurology
Ex Pro-Vice Chancellor
Bangabandhu Sheikh Mujib Medical University
Dhaka, Bangladesh









#### Outcome of DBS in generalized dystonia

Prof. Dr. Tipu Aziz

Within the past few years, there has been a renaissance offunctional neurosurgery for the treatment of dystonic movement disorders. In particular, deep brain stimulation (DBS) has widenedthe spectrum of therapeutical options for patients with otherwiseintractable dystonia. It has been introduced only with a delay afterDBS became an accepted treatment for advanced Parkinson's disease(PD). Deep brain stimulation fordystonia has been developed from radiofrequency lesioning, but ithas replaced the latter largely in most centers. The main target usedfor primary dystonia is the posteroventral globus pallidus internus(GPi), and its efficacy has been shown in generalized dystonia, segmental dystonia, and complex cervical dystonia. The optimaltarget for secondary dystonias is still unclear, but some patientsappear to benefit more from thalamic stimulation. The improvement of dystonia with chronic DBS frequently is delayed, in particular concerning tonic dystonic postures. Because more energy is neededfor stimulation than in other movement disorders such as PD, morefrequent battery replacements are necessary, which results in relatively higher costs for chronic DBS.

#### Psychogenic movement disorder

Prof. Dr. Anisul Hague

About 20%-30% of patients in neurology outpatient department may present as functional neurological problem. Around 1-2% in neurology OPD and 30% in a movement disorder clinic can be psychogenic movement disorder. It is a part of the spectrum of functional neurologic disorders. The psychopathology is not always evident and phenomenology is overlapping and complicated imposing challenge to the neurologist to diagnose confidently without much of expensive investigation and not miss a sister pathology. The separation of functional movement disorders from array of organic disorders is not always easy except by an experienced movement disorder specialist. Clinical variability, distractibility, mixed and changing patterns etc sometimes help in differentiation avoiding sophisticated investigations. In this paper some aspects of the psychogenic movement disorder is discussed with some videos which may help juniors to understand phenomenology of movement disorders.





### Day- 2 27 June, 2018 Wednesday

### Session: VII

Time: 11:20 - 12:40

Chairman: Prof. Dr Azharul Hoque

Prof. Dr. Abu Nasir Rizvi

Moderator: Dr. Mohammad Selim Shahi

**O1.** Ataxia Speaker: Prof. Dr. AKM Anwar Ullah

**O2.** Tremor Speaker: Prof. Dr. Mansur Habib

O3. Chorea, Ballism and Myoclonus Speaker: Prof. Dr. Ashraf Ali





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#### Ataxia

Prof Dr AKM Anwar I IIIah

Ataxia is a Greek word which means lack of order. Ataxia denoted a syndrome of imbalance and incoordination involving gait, limbs and speech and usually results from the disorder of the cerebellum or it's connections.

Cerebellar ataxia is a syndrome which has many different causes, the commonest being multiple sclerosis and alcoholic cerebellar disease in UK. This presentation is intended primarily for cerebeller ataxias which result from genetic causes and degenerative ataxias which have no known cause. These are rare diseases.

#### Tremor

Prof Dr Mansur Habib

Tremor may be defined as rhythmic, oscillatory, usually unidirectional involuntary movement of a part of the body due to alternating contraction of opposing muscle groups. It is the commonest of all involuntary movements (IMs). Like other IMs, tremor is not a disease, but merely a clinical feature, having a number of underlying causes. Traditionally tremor can be clinically classified in to three types: postural, rest and intention tremors.

Postural tremor is the commonest of all types of tremors, benign essential tremor (BET) being the commonest cause of it. Some commonly used drugs e.g. bronchodilators, a-methyldopa, lithium and thyrotoxicosis are the known and reversible causes of postural tremor. Rest tremor and intention tremor are classic characteristic features of Parkinsonian and cerebellar syndromes respectively.

Tremor can involve any part of the body, commonest being the hands. Head is seen to be affected next. Infrequently fingers, toes, tongue, lower limbs or whole trunk can be affected. Each type of tremor has a number of underlying aetiology. Diagnosis requires not only the identification of tremor but also the specific type. Diagnosis is almost always clinical and accuracy depends on the individual clinician's knowledge, experience and expertise on the subject. Limited but specific investigations are frequently necessary to identify the underlying cause. There is specific symptomatic treatment available for each of the tremor type, which frequently needs to be continued for long time. Treatment is also necessary for the underlying cause if possible. Prognosis of tremor depends on the specific type and obviously on the underlying aetiology.





# Title of POSTER PRESENTATION

#### Chorea, Ballism and Myoclonus

Prof Dr Ashraf Ali

Chorea and Ballism occur as a consequence of disease of the basal ganglia whereas Myoclonus originates anywhere from cortex to muscle. Chorea is a random and flowing movement. Ballism is a severe form of chorea usually involves only one side of the body due to lesions of the contralateral subthalamic nucleus. Myoclonus is sudden brief involuntary jerk. Sydenham's chorea is the most common form of acquired chorea in childhood. Genetic cause of chorea in childhood is Benign Hereditary Chorea. In adults, Levodopa induced chorea is the most common cause of chorea followed by Huntington disease. Huntington disease is an autosomal dominant genetic disorder with progressive chorea. Other genetic causes of progressive chorea in adult life are chorea acanthocytosis and Dentatorubropallidoluysian atrophy. Other sporadic causes of chorea in adult life are non ketotic hyperglycemia state, thyrotoxicosis, lupus chorea and hormone related chorea.

Common causes of ballismus are stroke and non ketotic hyperalycemia. In both chorea and ballismus, dopamine receptor blockers or dopamine depletors often improve the symptoms. GABAergic drugs as valproate helps in the symptomatic treatment of Sydenham's chorea. Immuno modulatory treatment as oral corticosteroids or iv immunoglobulin helps in case of long term sufferings of Sydenham's chorea. Myoclonus may be cortical, subcortical, spinal or peripheral. Among the causes of myoclonus are physiological, essential, epileptic, toxic/metabolic, neurodegenerative and drug induced. Epileptic myoclonus may be focal or generalised. Idiopathic generalised is Juvenile myoclonic epilepsy. Progressive myoclonic epilepsy is of mitochondrial origin. GABAergic medications as sodium valproate, clonazepam and other drug as levetiracetam are helpful to control myoclonus. Sodium channel blockers as phenytoin, carbamazepine, lamotrigine may do myoclonus worse.

#### 1. Factors influencing Quality of life in patients with Parkinson's disease

Mohammad Ibrahim Khalil, Md.Ridwanur Rahman, Maliha Hakim, Narayan Chandra Kundu, Priyatosh Chandra Das, and Md.Mohitul Islam.

2. Cerebeller ataxia, an unusual neurological manifestation of coeliac disease – a cse study

MdRakunuzzaman, Abdul Kader Sheikh, HasanZahidur Rahman, SaifullahAhtesam, KaziJannatAra, MdRafiqul Islam

3. Determination of high-sensitivity C-reactive protein in patient with early Parkinson's disease

Mohammad MasumEmran.

4. Deep Brain stimulation (DBS): Experience in Bangladesh Mohammad SelimShahi







- 1. Movement Disorder Society of Bangladesh started its activities by organizing a one day workshop at Milon Hall, BSMMU, Dhaka, Bangladesh in 2014.
- 2. World Parkinson Days are observed every year on 11<sup>th</sup> April by the Society with Rally
- 3. Bangla leaflet about Parkinson's disease is developed to aware Parkinson patients and their care givers.
- 4. 13 leaflet on different movement disorders of International Parkinson and Movement Society are translated in Bangla.
- 5. A website of the society (www.mdsbangladesh.org) is developed. All the leaflets are available in this website.
- 6. Society encouraging young neurologists to avail training on movement disorders from abroad. As a part of this one young neurologist has already trained up on movement disorders from abroad.
- 7. To aware physicians, patients and caregivers about latest treatment option of Parkinson disease and other movement disorders.
- 8. A liaison has been developed with International Parkinson and Movement Disorder Society and International Society has given financial support of this "1<sup>st</sup> National Congress of Movement Disorder Society of Bangladesh" under Developing World Education Program (DWEP).



Workshop arranged by Movement Disorder Society of Bangladesh on 23rd march, 2014



World Parkinson Day Rally on 11th April 2017





# Photo Albam



Discussion on Deep Brain Stimulation on 2017



World Parkinson Day observation in 2018





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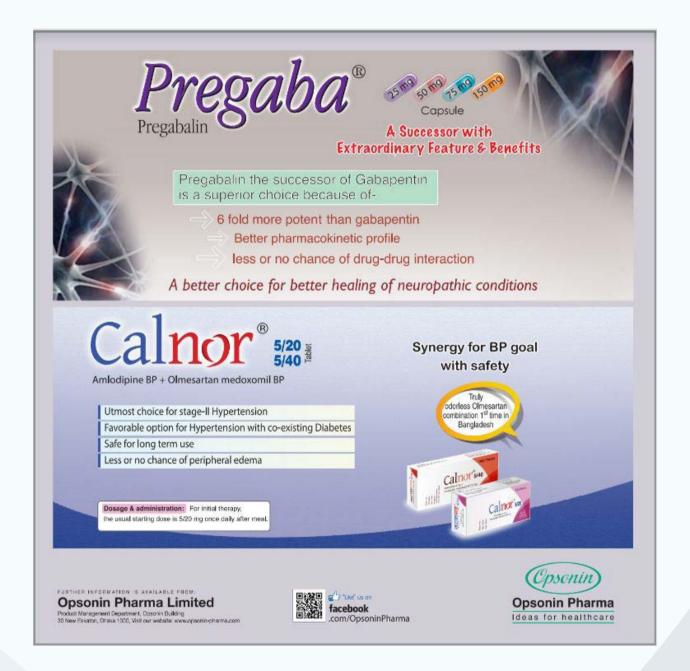
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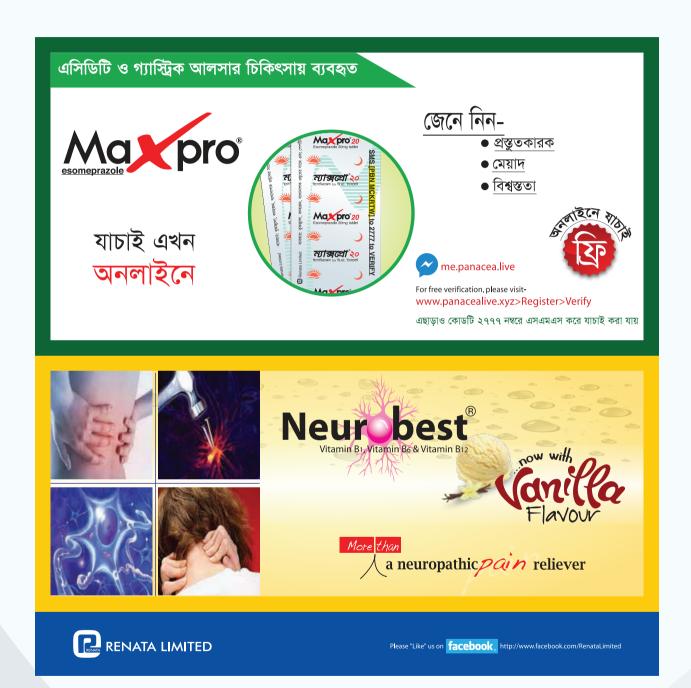














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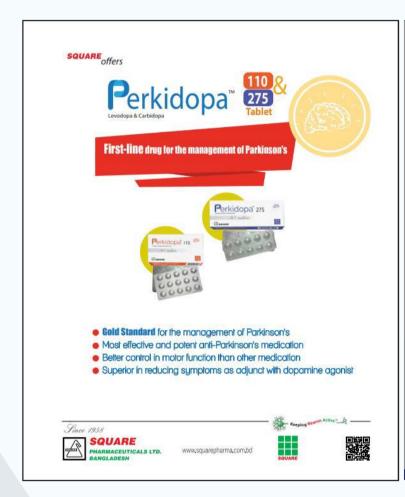






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