



# THE 2021 ACTIVITIES REPORT

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## INTRODUCTION

Indeed, 2020 which was heavily impacted by the COVID-19 pandemic, severely disrupted the initial action plan. From this experience from which we have learned lessons, we have adapted our approach to the context by using the appropriate technological means. So, many training and meetings were done by webinar and video conference. In-person training and activities were also possible within the limits of health conditions. Thus the year 2021 will have been that of the deployment of our programs to fight neurological disability and promote neurorehabilitation, including the ARPAC programs (Support Rehabilitation and Prevention of Stroke

in Cameroon), ADDIC (Alzheimer Disease and Dementia Issues in Cameroon) and MODICARE (Movements Disorders Care and Rehabilitation) which focused mainly on the accompaniment of hospital facilities.

In addition, we have put special emphasis on the internal training of our members by enrolling them in certifications and other international scientific meetings, by participating in webinars or by receiving trainers for face-to-face sessions. Our actions have also focused on the ongoing training of healthcare workers in general through open webinars or face-to-face training.



## 1. BRIEF OVERVIEW OF THE ASSOCIATION

**N**EUROREHAB TRAINING association is a non-profit association that works to promote the management of neurological diseases through rehabilitation. As neurological diseases are increasingly common in sub-Saharan Africa, they have physical, psychological and socio-economic consequences that are a heavy burden on our societies. They can cause paralysis, sensitivity problems, memory problems, language problems, vision problems, urination problems, etc. These disabling consequences can be addressed or even prevented by healthcare professionals using innovative techniques, most of which are not medicinal. Also, the non-medicinal management that remains the most effective remains neurorehabilitation or neurological rehabilitation.

### a. Our vision

The association's vision is to implement all kinds of action to improve the conditions for the management of disability due to neurological diseases in Cameroon:

- by drawing the attention of public authorities to a better management of neurological disability and an increased awareness on the knowledge of neurological diseases, their means of prevention, the negative impact of their stigmatization and the social and economic importance of managing neurological disability;

- By supporting national health policy by working

- towards the creation of hospital services specializing in neurorehabilitation and by contributing to the establishment of national health projects targeting the most recurrent neurological disabilities and encompassing all aspects of their management;

- By supporting national training and research policy through the development of academic and non university continuing training courses, which are dedicated to the training and research of health personnel in neurorehabilitation;

- By setting up a national network of neuro-educators and working towards their professional integration;

- By promoting the establishment of partnerships with learned societies and associations pursuing the same objectives, both nationally and internationally.

Our activities include three programs that currently target three types of neurological disabilities:

### b. Our programs

**ARPAC:** Support, Rehabilitation and Prevention of Stroke in Cameroon.

**MODICARE:** Movements Disorders Care and Rehabilitation.

**ADDIC:** Alzheimer Disease and Dementia Issues in Cameroon.



## 2. FOCUS ON OUR 2021 ACTIVITIES

### JANUARY

The Ordinary General Assembly was held on the 16 January 2021, with the participation of nearly 40 health professionals and other supporters. 02 highlights: the elaboration of the action plan 2021 and the assembly itself. 03 workshops for the elaboration of the action plan 2021.

### FEBRUARY

ARPAC – training seminar-workshop for the Douala-Yassa Gynecologic Obstetrics and Pediatric Hospital (HGOPED) staff on the «prevention and management of stroke complications», 18 to 19 February 2021.

ARPAC – the ARPAC members certifying training on the 2021 guidelines for the rehabilitation of strokes; online training by the World Federation for NeuroRehabilitation (WFNR), February to May 2021.

### MARCH

The training seminar on the «management of dizzying patient», held on the 13 March 2021 in Yaoundé.

ADDIC – the Organisation of a workshop-seminar on the training of the Cité-Verte hospital health personnel on the theme «diagnosis and management of cognitive disorders», 10 March 2021.

ADDIC – Participation in the scientific congress, meeting of behavioural neurology and memory consultations, from 25 to 26 March 2021, organized by the French Neurological Society (online).

ADDIC – Organization of a training seminar for the health staff of the Hospital of Olembé on «cognitive disorders and ageing: diagnosis and management», 31 March 2021.

### APRIL

MODICARE – Outreach and training activities for

the general public and healthcare professionals to mark World Parkinson's Day, 10 April 2021.

Webinar on the «Parkinson's Disease Management», 24 April 2021.

### MAY

ARPAC – Organization of a workshop-seminar for training of the Yaoundé Bethesda Hospital staff on the «prevention and management of post-stroke complications» and implementation of the stroke program, from 07 to 08 May 2021.

ADDIC – Organization of a training seminar of members on the neuropsychological rehabilitation: «basic concepts in neuropsychology and introduction to neuropsychological rehabilitation», 14 and 15 May 2021.

Organization of a training seminar on the «management of facial paresis», held from 29 to 30 May 2021 in Yaoundé.

### JUNE

Organization of a training seminar on the «management of neuroorthopedic complications in Post Stroke», held from 25 to 26 June 2021 in Douala.

### JULY

Participation in the seminar presented by Professor Jean Michel Graciés on the «neurorehabilitation of the movement», held from 05 to 09 July 2021.

Exchange and training meeting on the indications and prescription of neurorehabilitation, the principles of functional recovery and the management of aphasia with the Neuroclub (Club of Neurologists of Yaoundé), 09 July 2021.

ADDIC – multidisciplinary consultation meeting, 31 July 2021, one case addressed.

### AUGUST

Production of the newsletter, January to July 2021.

Production of the membership certificates.



## 3. REPORT ON OUR 2021 ACTIVITIES

### 3.1. TRAINING SEMINARS FOR HEALTHCARE PROFESSIONALS

#### 3.1.1. DIZZYING PATIENT MANAGEMENT: 13 March 2021.

On Saturday 13 March 2021, the NEUROREHAB TRAINING association organized a training seminar on the dizzying patient management.

The seminar took place in the Red Cross Proceedings Room, in the Messa district. It was attended by some thirty seminarians including doctors, nurses, nutritionists, neurologists, ENT doctors, physiotherapists and students. We were taught by a panel made up of: **Dr. Michael TEMGOUA** (Neurologist on duty at the Bethesda hospital in Yaoundé); **Dr. Adèle Rose NYEKI-BELL** (ENT-RTC Physician); **Dr. EBENE Laure wife of MAH** (Physiotherapist at the University Hospital of Yaoundé) with as moderator **Cyrille YANZE** (Physiotherapist).

#### **The objectives of the seminar were:**

- Knowledge of the vestibular system anatomy and physiology;
- Knowledge of the mechanism of dizziness and vestibular diseases;
- Knowledge of how to examine and differentiate a vestibular disease of central origin and a vestibular disease of peripheral origin;
- Knowledge of how to diagnose and conduct rehabilitation of a dizzying patient.

We started at 9:30 a.m and finished at 5:00 p.m. The day was divided into two large sessions, with a coffee break.

#### **Morning session, 09:30 a.m to 13:00 p.m**

This very rewarding phase was more theoretical; it was a great phase of exchange between presenters and participants. In turn, it was attended by Dr. Adèle Rose NYEKI-BELL who opened the seminar and was given two interventions. The first intervention which focused on anatomical and physiological recall helped us to establish a clear difference between the vestibular, visual and proprioceptive system.

The second intervention focused on proprioceptive vestibular pathologies.

Immediately afterwards, Dr. Michael TEMGOUA spoke about the central vestibular pathologies.

#### **Evening session; 14:00 to 17:00 p.m**

After a one-hour coffee break, the activities resumed and we had two other highlights; the first one animated by Dr. Adèle Rose NYEKI-BELL on the clinical assessment of the dizzying patient, and the second one which was much more practical was led by EBENE Laure wife of Mah: She spoke about vestibular management or rehabilitation.

Afterwards, we had a nice questions and answers series and separated, with great satisfaction from the participants, by a family photo while taking appointment for the second stage because much remains to be done.

## 3.1.2. REHABILITATIVE MANAGEMENT OF FACIAL PARESIS, 29-30 April 2021.

Neurorehab Training association organized a seminar on facial paresis commonly known as facial paralysis from 29 to 30 April, to bring light on the pathology; a better knowledge of the disease for an optimal management.

### a. Conduct of the first day

The seminar began in the afternoon of Friday April 29. After the reception and installation of various participants and organizers, Dr. Michael TEMGOUA, President of the association, welcomed everyone and declared open the seminar on facial paresis.

The first presentation was addressed by **Dr. Michael TEMGOUA** who provided us with information on the definition and conception of facial paresis, including physiopathology or diagnosis or etiologies of the disease; on how to distinguish between central and peripheral paresis. The physiopathology of facial paresis results from a nerve path lesion that can be either upstream of the nerve nucleus (CP: Central Paresis) or a direct lesion at the roots that emerge from the nucleus (PP: Peripheral Paresis). The diagnosis is made by a guided examination and a clinical evaluation; the etiology of this disease is very diverse, but the most predominant cause is idiopathic (Bell paralysis).

After this presentation was a series of questions and answers, and the focus was mainly on the effective understanding of the physiopathology of the disease which is an important key for the treatment of patients. This first day of training ended with a meal, and the appointment was taken for the following day.

### b. Conduct of the second day

The second phase of the training took place on Saturday April 30. After the reception and installation of participants was a word of welcome by Dr. Michael TEMGOUA.

\* At 9 a.m precise was a presentation addressed by the neuro-educator Dr. **NPOCHINTO MOUMENI** on the first theme: The technical evaluation or-and the quantification of facial movements. We learned that the evaluation of the patient must be both subjective (global, regional) and objective (3D/2D motion analysis via Kinovea); different scales were provided to quantify the facial movements (subjective and objective) among which the Creteil Scale was the most recommended. This presentation was followed by a series of questions and answers.

#### - Coffee break

\* The second theme was on the Physical treatment and evidence based practice: what works / what doesn't work.

This was very edifying on the therapy to adopt at the different phases of the disease and the contra therapeutic indications; the therapies that work.

A lively questions and answers series followed this presentation.

#### - Lunch break

\* The training which was quite rich in knowledge and practical techniques for the improvement and better management of patients with facial paresis, ended with the delivery of the participation certificates; and the appointment was taken with the Neurorehab Training Group for further and more enriched training.

### 3.1.3. MANAGEMENT OF POSTSTROKE NEURO-ORTHOPEDIC COMPLICATIONS: 25 to 26 JUNE 2021, DOUALA – INSAM UNIVERSITY.

#### Introduction:

From 25 to 26 June 2021, a training seminar was held in Douala on the management of neuro-orthopedic complications in a post stroke. It gathered together 15 people, all physiotherapists working mainly in the city of Douala.

The Workflow:

The first day training on the concepts of brain plasticity and functional recovery prognosis factors in post stroke opened at 14:30 p.m. It was presented by Dr. Michael TEMGOUA in two stages of about 01 hour each, and was followed by questions and answers sessions.

The second day which began at 08:30 a.m., was devoted to post-stroke neurolocomotor rehabilitation techniques validated in acute, subacute and chronic periods. It was a videoconference presentation by Dr. Ibrahim NPOCHINTO MOUMENI, physiotherapist and PhD in neuromuscular disability. The main neuro-orthopedic complications and their means of management were secondarily addressed. Thus, for about 04 hours of time interrupted by breaks, the essential of the theme was extensively covered, with very rich questions and answers series.

In the afternoon was specifically addressed the issue of poststroke deforming spastic paresis by Dr. Sinforian KAMBOU. The main aim here was to give an introduction to basic concepts and rehabilitation techniques.

#### Conclusion

At the end of this seminar the pedagogical objectives were achieved, and the richness of the debates indicated the need to strengthen the capacities of therapists on the subject through regular continuing training.

3.1.4. Parkinson's Disease Physical Medication Webinar: April 24, 2021.

Dr. Ibrahim NPOCHINTO MOUMENI, the functional re-educator, Clinical gerontologist and biologist of aging from the University Hospital Raymond Poincaré, Faculty of Medicine-Sorbone University, presented the Parkinson's disease, physical treatment, principles, strategies, techniques and technical applications. The speaker introduced with the importance of sports activity in Parkinson's disease, which is a neuro-evolutionary disease with three stages of evolution. Parkinson's disease is a major and frequent source of motor disability for which physical treatments are currently underutilized compared to chemical, dopaminergic and surgical therapy. The techniques are proposed to both the patient and the caregiver according to the stage of the disease.

Physical treatment: principles, strategies, techniques and technical applications.

The speaker presented the benefits of physical work including the protective nature of exercises. Indeed, according to studies conducted, physical work improves the neuroprotective effect. Regular physical activity delays the onset of symptoms; the duration and intensity of physical activity should be taken into account.

These activities decrease muscle stiffness, increase balance on the lower limbs and axial work. Emphasis has been placed on the rehabilitation of patients who fall. For this, some precautions must be taken: reduce the doses of dopamine, increase the frequency of walking, dancing, tai-shi, for the coordination of movements, training in double task. The activities must be carried out with due regard to the notion of constraint and can be carried out on a treadmill, bicycle among others, and be repeated. It would therefore be advisable to do physical work before taking the drug dopaminergent.

## 3.2. INTERNAL TRAINING OF NEUROREHAB TRAINING MEMBERS.

### 3.2.1. World Federation for Neurorehabilitation certifying training on post-stroke rehabilitation guidelines, February to May 2021 (by Prof Thomas PLATZ).

As part of the association internal training activities, 4 members were registered by the association to an online training from the World Federation for Neurorehabilitation (WFNR) on the 2021 guidelines of post-stroke rehabilitation in all its aspects. It was a training of 03 months, from February to May 2021, sanctioned by a

certificate. This very rewarding training allowed members to improve their daily practice and to conduct the program activities with more detailed expertise in the rehabilitation of stroke. 2 members finally succeeded and were graduated at the end of the TRAINING.

### 3.2.2. Neurorehabilitation Certifying Training, Melbourne University.

The training of members was reinforced this year by a certification on the basic principles of neurorehabilitation. Members of the ARPAC group were the main targets of this training. This certifying university training enabled and

offered our therapists the necessary weapons to take charge of patients with neurological disabilities. 2 members succeeded and were certified.

### 3.2.3. Five-days webinar training, July 05 to 09, 2021: Rehabilitation of spastic paresis and Parkinsonian syndromes, by Prof. Jean Michel Graciés – UNIVERSITY HOSPITAL MONDOR – PARIS.

The training team of NEUROREHAB TRAINING seized the opportunity of this training initially offered to the MPR department of the University Hospital FANN of Dakar to offer it to the members of the association. This week-long high-level webinar training, designed by Professor Jean Michel Graciés and his team, was unparalleled in its richness and was attended by 15 members of the association.

The first phase of the training took place from July 5 to 7. It was devoted to spastic deforming paresis. Professor Graciés in turn addressed the aspects of physiopathology, taxonomy and clinical evaluation; then the speaker explained

and commented the practical approach of the treatment by the contract of self-guided rehabilitation. This phase was completed by presentations on the role of muscular plasticity and cerebral plasticity in the spastic paretic patient.

The second phase of the training concerned the rehabilitation of Parkinsonian syndromes, the various tremors and ataxias. For the different syndromes and pathologies, within two days speakers addressed the physiopathological, clinical and rehabilitation aspects.

The training ended with presentations on infant brain paresis.

## 3.3. THE ARPAC 2021 PROGRAM ACTIVITIES

The ARPAC Program was established to address the issue of managing stroke complications in Cameroon. Some data tell us about the financial weight of stroke in the society. Some studies report an average mortality rate of 26,8 per cent with an average cost of hospitalization ranging around

621,795 FCFA (948 EURO) which represents 17 times the minimum wage in Cameroon. In addition, most of this financial weight is devoted to the treatment of post stroke disability through functional rehabilitation which accounts for about 48 per cent of the overall cost of treatment after a stroke.

### 3.3.1. Training Seminar at the Douala Obstetrics and Pediatrics Hospital from February 18 to 19, 2021: Prevention and management of post-stroke complications.

As part of the ARPAC program, NEUROREHAB TRAINING association in partnership with the laboratory SERVIER organized from 18 to 19 February 2021 a workshop-training seminar for the personnel of the Gynecologic Obstetrics and Pediatric Hospital (HGOPED) of Douala Yassa on the "PREVENTION AND MANAGEMENT OF NEUROLOGICAL COMPLICATIONS IN POST STROKE"

#### a. First Day, 18 February 2021

The training started around 10:30 a.m with an inaugural lesson on stroke by Professor Jacques DOUMBE, who gave a brief overview of the health situation and the difficulties faced by caregivers of people with a stroke.

The first presentation by Dr. Eric BILA, neurologist at the Gynecologic Obstetrics Hospital of Douala, was on the epidemiology of stroke. The second presentation by **Dr. Sinforian KAMBOU** focused on disability (visible and invisible), its classifications and its importance according to the WHO. This was followed by a presentation by **Dr. Eric BILA** on the diagnosis of stroke, around clinical diagnosis, etiological diagnosis and differential diagnosis. The following presentation by **Dr. Melaine MAGNEROU**, neurologist at the Gynecologic Obstetrics Hospital of Douala, focussed on the management of stroke. The training continued with the presentation of SERVIER laboratories that works for the protection of the patient in post stroke against any recurrence. Then was a 15min break.

In the second phase of the training **Dr. Michael TEMGOUA**, neurologist at the Bethesda Hospital of Yaoundé, stressed on the mechanisms of neurological recovery and functional prognosis factors. The last presentation of the day by Mrs. Doris Diane BACAM, nurse and nutritionist, was on the assessment of the nutritional status/metabolic and digestive complications in the

patient in post stroke.

Following all presentations, the training participants were able to express their concerns in a series of questions and answers, which was very interesting in view of the answers given to the concerns associated with the lived experiences. This first day ended with satisfaction of the staff and the closing remarks of Dr. Eric BILA; the appointment was taken for February 19.

#### b. Second day, 19 February 2021

The activities at the HGOPED began with the word of welcome by Dr. Eric BILA, and then followed a series of questions and answers conducted by Dr. Melaine MAGNEROU on the different teaching of the previous day, to properly situate the trained personnel and make a memory reminder for a better assimilation of the shared knowledge.

The first presentation by **Dr. Ibrahim NPOCHINTO** was on neuro-orthopedic problems in the patient with motor disability: the prevention and treatment of spastic paresis. With regard to neuro-orthopedic problems, the orthopedic physical therapy is highly recommended and is the most appropriate compared to pharmacological therapy.

The second presentation by **Dr. Martial ZANGA**, radiologist at the Gynecologic Obstetrics Hospital of Douala, adressed the place of Imaging in the management of stroke.

The last presentation before the practical phase by Dr. Michael TEMGOUA, focussed on neuropsychological complications in the acute and subacute phase of the stroke.

#### C. Practical sessions

- The postures: in the prevention of neuro-orthopedic disorders in post-stroke patients (the role of nurses, physiotherapist, AS and family).

This presentation was addressed by **Mrs. Sorelle TCHOUPTEG**, physiotherapist, who gave an update on postures changes every two hours maximum in order to avoid decubitus complications among others on bed sores, cardio adaptationvascular, locomotor disorders (muscle wasting, joint shrinkage and risk of spasticity “antigravity muscles”). The maintenance of musculoskeletal structures in elongated rather than shortened positions is ideal to prevent neuro-orthopedic complications, notably in supine, left and right lateral decubitus;

#### **- The transfers**

This presentation was addressed by Ms. Vanessa CHENO, physiotherapist, who showed how to perform transfers from the lying position to the sitting position on a wheelchair and vice versa; with strategies of progressive verticalizations.

### **3.3.2. Training seminar at the Bethesda hospital of Yaoundé from 07 to 08 May 2021: Implementation of the CVA program /Prevention and management of post-stroke complications.**

Given the influx of patients in post stroke in the hospital, the need to create a CVA program for referral management prompted the organization by NEUROREHAB TRAINING (ARPAC) of the training seminar held from 07 to 08 May 2021.

#### **a. First day training**

It began at around 3:30 p.m by the word of welcome of Dr. Donald KAMGANG, followed by a prayer by one of the staff members to entrust the whole training to God.

The first presentation was addressed by Dr. Michael TEMGOUA on the topic “STROKE MANAGEMENT: protocols and neurovascular unit”

The second presentation was addressed by Dr. Ingrid NDONGMO, cardiologist, who stressed on ECG in neurovascular emergencies.

The last presentation was addressed by Dr. Carine MAKOU DJOU on stroke imaging: what to look for and recognize urgently.

The first day ended with a closing prayer by a member of the structure, followed by a cocktail.

#### **b. Second day training**

The first presentation was addressed by Mrs. Dorisse Diane BACAM, neuro-nutritionist, on the ASSESSMENT OF NUTRITIONAL STATUS/METABOLIC COMPLICATIONS IN POST STROKE; she drew

#### **- The elementary movements and stretches**

The presentation was addressed by **Mr. Alex MOYOU**, physiotherapist, who showed the movements that can be done passively and that the patient could do on his own, to prevent the joints from jamming.

As a result of these presentations the nursing staff practiced the different postures, transfer methods and movements learned, and the results were quite satisfactory given the dynamism of this nursing team.

#### **- The using of the Mini Nutritional Assessment (MNA)**

This was realized by Mrs. Doris Diane BACAM, to detect undernutrition and possibly assess the nutritional status specifically in elderly patients (over 60 years old) in hospital.

particular attention to the nutritional status of patients in post stroke which is generally sidelined yet very capital in the prognosis of recovery.

The second presentation was addressed by Dr. Ibrahim NPOCHINTO, neuro-educator, on the PREVENTION OF NEURO-ORTHOPEDIC COMPLICATIONS IN POST STROKE; the prevention of neuro-orthopedic complications in post-stroke patients is rigorous with regard to the good postures adopted during hospitalization, in addition to movements, stretching and re-entrainment to stress in his patients.

The last presentation was addressed by Dr. Michael TEMGOUA on the SWALLOWING DISORDERS: prevention and management. The prevention of alimentary wrong ways is very important because they can create more alarming complications than the disease itself; hence the importance of properly assessing, monitoring and practical advice to nursing and caregivers on the prevention of swallowing disorders.

#### **c. Practical sessions**

- Postures: in the prevention of neuro-orthopedic disorders in post-stroke patients (the role of nurses, physiotherapist, AS, family)

This presentation was addressed by Mrs. **Sorelle TCHOUPTEG**, physiotherapist, who provided us with an update on postures changes to avoid decubitus complications, including on bed sores, locomotor disorders (muscle loss, joint shrinkage and risk of spasticity, antigravity muscles).  
- Basic transfers, movements and stretches

This presentation was addressed by **Mrs. Vanessa CHENO**, physiotherapist, who showed how to perform transfers from lying down to sitting in a wheelchair and vice versa.  
As a result of these presentations, the nursing staffs practiced the different postures, methods of transfers and the movements learned.

### 3.4. The modicare program activities

#### 3.4.1. Conference debate on the World Parkinson's Day, 10 April 2021.

The commemorative activities for the World Parkinson's Day began at 11:00 a.m and ended at 5:45 p.m. This Day was organized with the PARKISON CAMEROON patients association, and brought together some 30 participants, health professionals, caregivers of Parkinsonian patients, volunteers, etc.

##### a. A word from the President of Parkinson Africa

Mrs. Thomas OMOTOLA, the President of Parkinson Africa thanked Mr. Hilaire Roger from Parkinson Cameroon for his involvement in raising awareness about Parkinson's disease, and the President of NEUROREHAB Training association, Dr. Michael TEMGOUA, for his involvement in this awareness-raising work. In a short five-minute video, she said Parkinson Africa association was established for people living with the disease in order to create, establish visibility and an overview of Parkinson's disease in Africa. This would make it possible to access information, education, resources and support needed to manage the effects of Parkinson's disease in order to be treated with dignity.

The President recalled the association's three flagship missions: informing the masses about Parkinson's disease so that people are informed about what to do or not to do in this case; encouraging people, families, communities to commit to understanding this disease; and promoting access to Parkinson's disease care in the Africa context.

##### b. Presentation of Carole HIIH, caregiver from Parkinson Cameroon support group, on the theme "Children: the forgotten victims of Parkinson's disease".

Her presentation aroused a strong emotion among the participants and a round of applause. Carole HIIH, after a brief history of Parkinson's disease, established the link between symptoms identified during Parkinson's disease and their effects on the lives of children.

Indeed, the speaker insisted on the disruption of family leisure activities that were severely disrupted because of the worsening symptoms of the disease in her father. She also presented the rights of the child worldwide in 2014 and the importance of taking these rights into account in the management of Parkinson's disease. In perspective, Carole HIIH announced that a book related to her experience was being written.

##### c. Testimonial of a Parkinson's patient from the Cameroon Parkinson's patients Support Group.

Mr. Hilaire Roger HIIH MBE, President of the Parkinson's Support Group Cameroon was willing to give his testimony. He reported the pre-diagnosis symptoms of Parkinson's disease; precisng that 2013 was the year the diagnosis was announced. Mr. HIIH said: «Dear Sir, the various clinical examinations indicated a young parkinsonian syndrome, and no information was provided to me about the disease». After this phase, he described the concept of "honeymoon" and then the worsening phase of his symptoms with a significant psychological and social impact.

The situation worsened due to the global shortage of SINEMET, a drug that is usually prescribed in this case for symptom management. Despite the complexity of the situation, Mr. HIIH did significant achievements: In the context of COVID19-in full confinement-he worked for the facilitation of purchases and shipments of

medicines from France to Cameroon, through his network of volunteers in the French capital, for the visit of support and comfort to the sick in full confinement, for the distribution of foodstuff, and for awareness and information

through radio and television media. In 2021, he continued the awareness work. This allowed an increase in the number of patients in the group (2-80 patients).

### **3.4.2. Training seminar for healthcare professionals open to the general public: Diagnosis and management of Parkinson's disease, 10 April 2021.**

The thirty participants were made up of 10 physiotherapists, 04 students (nurse, neurolinguistics, and pharmacy), 03 caregivers, 02 biomedical engineers, 02 neurologists, 01 pastor, 01 psychologist, 01 teacher, 01 person living with Parkinson's disease.

#### **a.Part 1: Physiopathology, Drug diagnosis and treatment**

This was presented by Dr. Yannick TALLA, neurologist and specialist of Parkinson's disease from SENS hospital-France. The physiopathological, clinical and therapeutic aspects of drugs were discussed in an hour of time. This was followed by questions and answers sessions where the trainer shed light on the remaining shadows.

#### **b. Part 2: Physical treatments and neurorehabilitation**

This second part was presented by Dr. Ibrahim NPOCHINTO MOUMENI, physiotherapist and PhD in neuromuscular disability from the University Hospital GARCHES-France.

The speaker stressed the importance of physical activity and the place of functional rehabilitation as a real medication. Indeed, it is a neglected approach that is a privileged treatment for parkinsonians. He thus highlighted the work carried out in many laboratories and neurorehabilitation service.

#### **c.Pre-test and post-test results**

In order to evaluate the trainees, a knowledge test was organised before and after the seminar. The results of the pre-test showed 44 per cent of correct answers. Then a progression rate of 22 per cent was observed, for a 66 per cent of correct post-test answers.

## **3.5. REPORT ON THE ADDIC PROGRAM ACTIVITIES**

### **3.5.1. Training seminar on diagnosis and management of cognitive disorders, 10 March 2021 at the Cité-Verte hospital.**

This seminar brought together 33 health professionals and was led by the Medical Director of the hospital. After a brief presentation of the ADDIC program, the training opened by a 45-minute presentation by Dr. TEMGOUA who made it possible to review the major cognitive functions, the diagnosis and therapeutic approaches of its disturbances.

This resulted in a rich question and answer ses-

sion of approximately 30 minutes. We then had the presentation of IPSEN PHARMA laboratories, which supported the physical organization of this activity. At the end of these scientific exchanges, the medical Director expressed the satisfaction of the hospital and the participants, and hoped that this initiative would be renewed over time. The training ended at around 5 p.m.

### **3.5.2. Behavioural Neurology Meetings and Online Memory Consultations organized by the French Neurological Society (Scientific Congress).**



This congress was attended by five members of the association including Claude NGAS-SAM, Marcelle TONGA COPBELONG, Paul ATSA KOUDA, Philomène Synthia TONYE, and then Sonia Sandra FOTSA.

The first theme presented by Dr. B. Garcin and S. MOUCHABAC focussed on Hysteria.

We learned that this is a frequently encountered situation always difficult to manage because it requires an understanding of the physiopathology and its therapeutics. According to a Scottish cohort (STANE et Al; Brain 2003), it accounts for 15 per cent of neurology visits. The interest of its evaluation has considerably diminished; this can be justified by the difficulty in making diagnosis, due to the lack of training today. Neurological Functional Disorders (DSMS) are more commonly referred to because this terminology is more accepted by the scientific terminology.

As signs we have mainly abnormal movements and motor deficit; secondarily we have non-epileptic seizures, sensory deficit, language disorders and swallowing disorders. Some references given: CATONNE J.P. et Al: the concept of hysteria under Hippocrates (1992; 705-719); ESCANDE. M: EMC psychiatric

(1996); BROUSSOLLE. E et AL: History of physical and moral treatments of hysteria (2014; 181-197).

The second theme presented by T. LEBOUVIER focused on Parkinsonian syndrome and cognitive disorders.

We learned that Parkinsonian syndrome may be observed in Alzheimer's disease but later. We note as abnormal movements

- Chorea which is a random anarchic movement with rotation or flexion/extension non-stereotyped arrhythmic without finality, can affect the face, the limbs, the neck, the trunk. Associated with cognitive disorders, is first thought of as huntington's disease.

- Dystonia is a prolonged involuntary contraction of the muscles or part of the body with torsional movements. Dystonia associated with cognitive disorders is primarily thought of as cortico-basal degeneration.

- Myoclonia are sudden breve and involuntary jerks of a muscle or group of muscles. When associated with cognitive disorders, is first thought of Creutzfeldt-Jakob disease and Prion diseases.

- The involuntary rhythmic oscillation tremor of

all or part of the body around its equilibrium position, a resting tremor is first thought of as parkinson's disease, and a postural and or intentional tremor is thought of as a Lewy Diffus disease.

The third theme presented by J.PARIENTE focused on how to evaluate executive functions Here, Akira MIYAKE and Naomi FRIEDMAN described executive functions as high cognitive functions. They brought together working memory, inhibition, flexibility and planning-fa-

culty. As tools used to examine executive function disorders It was listed: BADS Dex questionnaire, BRIEF-A (Behavioural Assessment Inventory of Executive Functions – adult version), GREFEX, STROOP test, the six-element test, the trail making test, the BRIXTON test, the BADDELEY double stain, then the neurocognitive and psychiatric evaluation itself. The Delis-Kaplan executive function system can also be listed. If we visit the site neurocoop.net we will find a variety of tests that can help to make an assessment.

### 3.5.3. Training seminar for health personnel on cognitive disorders and aging: diagnosis and management, 31 March 2021 at the Olembé District Hospital.

The Olembé District Hospital welcomed the second training activity of hospital health personnel on cognitive impairment. The training brought together 15 care staff from this hospital. The training opened at 3:30 p.m with the word of welcome of the medical manager of the hospital. We first had a theoretical presentation of about 45 minutes on the clinical description of cognitive disorders, by Dr. TEMGOUA. Then Dr. Daniel ATSA presented a synthesis on neuropsychological semiology, thus allowing the audience to clearly

understand the problem. After these theoretical presentations, there were a 40 minutes questions and answers series.

IPSEN PHARMA Lab, a privileged partner of these training activities, then engaged with a presentation of its therapeutic offer in the management of cognitive disorders. The scientific meeting ended around 5:15 p.m with a word of thanks from the medical officer who expressed his wish to see us again in his structure for other training of the same type.

### 3.5.4. Training seminar of neuropsychological rehabilitation of members on the «Basic concepts in neuropsychology and introduction to neuropsychological rehabilitation», 14 to 15 May 2021, Yaoundé.

The “small hall”, one of the meeting rooms of the Ecumenical Service for Peace located at Biyem-Assi in Yaoundé, hosted a training seminar on the **«Basic notions in neuropsychology and introduction to neuropsychological rehabilitation»**, from May 14 to 15, 2021. The scientific work of the training was led by Professor Jean IKANGA (neuropsychologist) assisted by Dr. Immaculate KAVUGHO.

At the end, 11 recipients received their parchments attesting to their participation in this unique, exclusive and very rich training. One of the objectives of the ADDIC program is to enable professionals with diverse expertise to help push back even further the shadow that is very present in the management of neurocognitive diseases and dementia in Cameroon. Beyond

the very rich content, we will also remember from Professor IKANGA that this training will enter the annals because it stands as a stone to the building of neuropsychology in Cameroon. This held the different participants in suspense in view of the exciting perspectives that are emerging on the horizon.

The work was divided into sessions:

**Session 1:** Introduction to Clinical Neuropsychology

**Session 2:** Neuroanatomy Concepts

**Session 3:** Evaluation in Neuropsychology; Presentation of Neuropsychology tests (types of hemineglect, psychomotor skills, apraxia, anomia, language, learning, memory, executive functions)

**Session 4:** Hands-on workshops by learners and free consultations.

## 3.6. REPORT ON INTERDISCIPLINARY MEETINGS WITH NEUROLOGISTS IN YAOUNDE, 09 JULY 2021.

### Introduction

As part of the training and exchange activities for the popularization of neurorehabilitation in Cameroon, NEUROREHAB TRAINING association took part in this scientific meeting bringing together neurologists from the city of Yaoundé.

#### a. Conduct

It was an exchange with neurologists on the basis of neurorehabilitation and sensitizing them to integrate these therapies in the management of patients with neurological pathologies.

Then were a first presentation by Dr. TEMGOUA on the principles of post-stroke neurolocomotor rehabilitation, and a second presentation by Mrs. Claude NGASSAM, neurolinguist, on the manage-

ment of aphasia.

We then engaged in the questions and answers where other members of the association including Dr. Sinforian KAMBOU (MD or Associate Professor), Mrs. Vanessa CHENO and Sorelle TCHOUPTEG both physiotherapists, enlightened the audience on the importance of neurorehabilitation.

### Conclusion

This activity allowed us to address an essential aspect of our mission, that of involving neurologists the major players in the initiation of neurorehabilitation in patients. It would therefore be more than useful to multiply these types of meetings in order to further our program and objectives.

## 4. SOME KEY FIGURES



- 03 main programs to combat neurological disability
- 03 international affiliations
- 01 International Scientific Congress (Summit of the Scientific Francophonie)
- 01 free consultation campaign
- 01 conference debate
- 01 interdisciplinary scientific meeting
- 05 internationally certified graduates in neurorehabilitation
- 04 hospitals trained
- 180 trained health workers
- 10 training seminars on neurorehabilitation topics

## 5. OUR PROSPECTS

Our main challenge in achieving our objectives remains the greater involvement of public authorities and international organizations involved in the management of neurological disabilities. So, for the coming years, it will be urgent:

To involve and further engage the Ministries of Health, Social Affairs and Higher Education in our programs and activities, in order to design a national neurological disability program for the future;

To promote the establishment of a neurorehabilitation Centre and rehabilitation neuroscience training Centres;

To develop our collaboration with companies and international organizations involved in the management of disorders in general and neurological disorders in particular.

The second major challenge is the multidisciplinary aspect and the involvement of health professionals involved in the management of neurological conditions. Thus, we will have to put a special emphasis on collaboration with local scientific societies in the field of neuroscience by participating more and more strongly in their scientific conferences and meetings. It will also involve opening up to other non-medical therapists such as nurses,

paramedical technicians, etc. by getting closer to their organizations and organizing training sessions specific to their contribution in neurorehabilitation.

The last major challenge is that of the development of our association both locally and regionally. We will therefore have to work this year to set up sections in other regions of Cameroon, in order to be closer to our targets and more easily deploy our activities across the national territory. In collaboration with colleagues from other African countries, we have set up the Société d'Afrique Francophone de Neuroréhabilitation (SAFNeR), with the aim of pooling our actions and influencing health decision-making within national, regional and international organizations and agencies.

Finally, we are planning within 02 years to organize our first international scientific congress on neurorehabilitation. It will be an opportunity to take stock of our course and to give a second breath to our specialty and above all to offer a unique opportunity for training and exchange of experience with international experts in neurorehabilitation.

## OVERALL CONCLUSION

The year that ends is undoubtedly the most successful of our association young existence. The initial program was widely followed and the objectives achieved. We are now facing great challenges because the task is immense. United and all committed we will get there.

We congratulate the members whose deter-

mination, despite the lack of resources, was rich in heroism. We also thank our partners who mobilized within their means to support our actions and on whom we expect to rely in the years to come.

One word: «Together let's bring light on the neurological disability»



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