Poster

Brain Injury and Dementia care 2017

4th International Conference on

BRAIN DISORDERS AND DEMENTIA CARE

August 14-16, 2017 | Holiday Inn Toronto International Airport

Toronto, Canada

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Azza A. Ali et al., Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

4th International Conference on

BRAIN DISORDERS AND DEMENTIA CARE

August 14-16, 2017 | Toronto, Canada

The Possible Interaction between Social Isolation and Protein Malnutrition on Induction and Progression of Alzheimer's disease in Rats

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Background: Alzheimer's disease (AD) is a neurodegenerative disease characterized by deposition of Beta-amyloid peptides (Aβ), accumulation of neurofibrillary tangles and memory loss. Social isolation (SI) may exacerbate memory deficits where the risk of cognitive decline may be lower by maintaining social connections. Protein malnutrition (PM) increases oxidative damage in cortex, hippocampus, cerebellum and is implicated in the progression of AD.

Objective: To study the influence of SI together with PM for different periods on DNA fragmentation, β-Secretase, biochemical and histopathological changes in normal rat brain as well as to investigate their possible interaction during induction and progression of AD.

Methods: Rats were daily treated either for three or four weeks as following: Normal control received saline, Control AD model injected by ALCl3 (70 mg/kg, IP), SI-associated AD model, PM (10% casein diet)-associated AD model, SI-associated PM model and SI&PM-associated AD model. Isolated rats were housed individually in cages covered with black plastic. Biochemical changes in the brain as acetyl cholinesterase (ACHE), Aβ, tau protein, brain derived neurotrophic factor (BDNF), monoamins (DA, 5-HT, NE), inflammatory mediators (TNF-α, IL-1β), oxidative parameters (MDA, SOD, TAC) and β-Secretase as well as DNA fragmentation were estimated for all groups. Histopathological changes in different brain regions were also evaluated.

Results: SI together with PM for three and four weeks resulted in brain neurological damage indicated by significant increase in β-Secretase, Aβ, tau protein, ACHE, MDA, TNF-α, IL-1β and DNA fragmentation as well as significant decrease in SOD, TAC, BDNF and monoamins in both normal and AD brain. However, brain neurological damage was more severe when SI and PM were associated with AD especially after 4 weeks. These results were confirmed by histopathological changes in different brain regions.

Conclusion: SI and/or PM induced brain neuronal degenerations. More pronounced and sever effects were shown after 4 weeks especially in AD model. Consequently, socialization and adequate protein nutrition are advised especially with AD to avoid the severity and the progression of the disease.

Key words: Alzheimer's disease; Social isolation, Protein malnutrition, Neuronal degeneration, Socialization, Rats

Speaker Biography

Prof. Azza A Ali has completed her PhD specialized in Pharmacology and Toxicology from Faculty of Pharmacy, Cairo University. Her postdoctoral studies included different scientific aspects related to her specialization field with giving especial interest to researches of neuropharmacology and psychopharmacology; she also developed research line of behavioral pharmacology in Egypt. She is member of many scientific societies in Egypt as well as of (AAPS) American Association of Pharmaceutical Scientists (2002) and (ISTAART) The Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (2016). She published more than 50 papers in reputed journals, supervised and discussed more than 80 PhD, MSc thesis and actively participated by oral and posters presentations at many international conferences especially on Alzheimer's disease & Dementia as Dementia 2015, 2016 and Alzheimer's Association International Conference (AAIC 2016). She has many appreciation certificates and certificate of best presentation award at 19th International Conference on Environmental Pollution and Pollution Control (ICEPPC 2017). Now she is a Head of Pharmacology and Toxicology Department at Al-Azhar University and she sacrifices great effort hoping to find real treatment that can prevent or delay the progression of Alzheimer's disease especially in the high-risk individuals focusing on depression, stress and malnutrition.

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Azza A. Ali et al., Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

4th International Conference on

BRAIN DISORDERS AND DEMENTIA CARE

August 14-16, 2017 | Toronto, Canada

Evaluate the impact of Cocoa either alone or in combination with other Neutriceuticals against Alzheimer's disease induced by aluminum in rats

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Background: Alzheimer's disease (AD) is a progressive neurodegenerative disorder, oxidative stress plays pivotal role in damaging membrane integrity and reducing nerve cells. Cocoa beans can protect the body from the impact of free radicals and promote better memory. Epigallocatechin-3-gallate (EGCG) can reduce iron-accumulation in instance of neurodegenerative diseases while Vinpocetine (Vinp) increases cerebral blood flow. Coenzyme Q10 (CoQ10) also causes improvement of cognitive functions. Wheat grass possesses essential vitamins, minerals and trace elements, vitamins play important roles against brain damage especially when used together or with selenium (Se).

Objective: To evaluate the potential protective effects of Cocoa alone or together with either EGCG, Vinp, CoQ10, Wheat grass, Vitamin B complex or combination of Vitamin E, C and Selenium (Se) against aluminum-induced AD in rats. Methods: Nine groups of rats were used and injected daily for four weeks; either with saline for control or with AlCl3 (70mg/kg I.P) for AD model groups. One of AD groups served as model control while the others received together with AlCl3 either Cocoa (24mg/kg, P.O) alone or in combination with EGCG (10mg/kg, I.P), Vinpocetine (20mg/kg, P.O), CoQ10 (200mg/kg, P.O), Wheat grass (100 mg/kg, P.O), Vitamin B complex (0.2 mg/kg, P.O) as well as combination of VE (100mg/kg, P.O), VC (400mg/kg P.O) and Se (1mg/kg, P.O). Behavioral performance in Y-maze and conditional avoidance test as well as changes in brain Aβ, tau, β-secretase, brain derived neurotrophic factor (BDNF), ACHE, monoamins, inflammatory mediators (TNF-α, IL-1β), oxidative parameters (SOD, TAC, MDA) were measured for all groups. In addition, DNA fragmentation and histopathological changes in different brain regions were also detected.

Results: Brain neurological damage characterizing AD model were detected. All treated groups showed protection against hazards of AlCl3 but combined therapy showed better results than Cocoa alone especially with Vinp or EGCG as indicated by the significant decrease in Aβ, β-secretase, tau, ACHE, MDA, TNF-α, IL-1β together with increase in SOD, TAC, brain monoamins, BDNF and confirmed by histopathological examinations as well as the decrease in DNA fragmentation.

Conclusion: Combination of Cocoa with Vinp or EGCG showed higher protection against AD induced by AlCl3 in rats than either cocoa alone or together with all other used treatments.

Key words: Alzheimer's disease; Cocoa; Vinpocetine; Epigallocatechin-3-gallate; Coenzyme Q10; Wheat grass; Vitamin B complex; Vitamin E, C & Selenium; Rats.

Speaker Biography

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DOI: 10.21767/2471-9633-C1-006

4th International Conference on

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Comparative Study on the Influence of Vinpocetine Alone or in Combination with different drugs against Aluminum-induced Alzheimer's disease in Rats

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Background: Alzheimer's disease (AD) is a progressive neurodegenerative disorder that accounts for the major cause of dementia in the world. It is pathologically characterized by deposition of β-amyloid (Aβ) peptides which influenced by oxidative stress and mitochondrial dysfunction. Vinpocetine increases cerebral blood flow, glucose uptake and has memory-enhancing properties. Epigallocatechin-3-gallate (EGCG) is a natural chelator and has health-promoting effects in CNS. Coenzyme Q10 (CoQ10) is an intracellular antioxidant and mitochondrial membrane stabilizer, while Vitamin E (VE) and Selenium (Se) are antioxidants and have ability to counteract free radicals.

Objective: To evaluate and compare the potential protective effects of Vinpocetine either alone or in combination with EGCG, CoQ10 or VE & Se against aluminum-induced AD in rats. Methods: Nine groups of rats were treated daily for four weeks with either saline for control group, AlCl3 (70 mg/kg I.P) for AD model group or received together with AlCl3 each of the following treatments: EGCG (10 mg/kg, I.P), CoQ10 (200mg/kg, P.O), VE (100 mg/kg, P.O) & Se (1 mg/kg, P.O) as well as Vinpocetine (20 mg/kg, P.O) either alone or in combination with each of them. Changes in brain Aβ, tau protein, ACHE, monoamins, inflammatory mediators, oxidative parameters as well as brain derived neurotrophic factor (BDNF) were measured. In addition, DNA fragmentation and Histopathological changes in different brain regions were also detected for all groups.

Results: Brain neurological damages characterizing AD rat's model were established. All treated groups showed different degrees of protection against hazards of AlCl3. Their protection was indicated by the significant decrease in Aβ, tau protein, ACHE, MDA, TNF-α, IL-1β together with the increase in SOD, TAC, monoamins, BDNF and confirmed by the histopathological examinations as well as the protection of DNA from fragmentation. Vinpocetine either alone or in combination with other treatments especially EGCG showed better results than each individual treatment.

Conclusion: Vinpocetine showed higher protection against AD induced by AlCl3 in rats than all other used individual treatments, but its combined therapy with these treatments especially with EGCG showed more pronounced protection.

Key words: Alzheimer's disease; Vinpocetine; Epigallocatechin-3-gallate; Coenzyme Q10; Vitamin E & Selenium; Rats

Speaker Biography

Prof. Azza A Ali has completed her PhD specialized in Pharmacology and Toxicology from Faculty of Pharmacy, Cairo University. Her postdoctoral studies included different scientific aspects related to her specialization field with giving especial interest to researches of neuropharmacology and psychopharmacology; she also developed research line of behavioral pharmacology in Egypt. She is member of many scientific societies in Egypt as well as of (AAPS) American Association of Pharmaceutical Scientists (2002) and (ISTAART) The Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (2016). She published more than 50 papers in reputed journals, supervised and discussed more than 80 PhD, MSc thesis and actively participated by oral and posters presentations at many international conferences especially on Alzheimer's disease & Dementia as Dementia 2015, 2016 and Alzheimer's Association International Conference (AAIC 2016). She has many appreciation certificates and certificate of best presentation award at 19th International Conference on Environmental Pollution and Pollution Control (ICEPPC 2017). Now she is a Head of Pharmacology and Toxicology Department at Al-Azhar University and she sacrifices great effort hoping to find real treatment that can prevent or delay the progression of Alzheimer's disease especially in the high-risk individuals focusing on depression, stress and malnutrition

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Zouhra Doukkali, Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

4th International Conference on

BRAIN DISORDERS AND DEMENTIA CARE

August 14-16, 2017 | Toronto, Canada

Anxiolytic activity of aerial part of *Mercurialis annua* aqueous extract in using light/dark and hole board tests

Zouhra Doukkali
University Mohammed V of Rabat, Morocco

Background: The present study was designed to study anxiolytic property of aqueous extracts of *Mercurialis annua*; an important and commonly used for its medicinal properties belongs to Euphorbiaceae family.

Methods: The anxiolytic activity was evaluated with the adult mice by hole board test, and the light–dark box test, and motor coordination with the rota rod test. The efficacy of the plant extract (100–600 mg/kg) was compared with the standard anxiolytic drug diazepam (1 mg/kg)

Results: The extract increased the time spent in the brightly-lit chamber of the light/dark box, as well as in the number of times the animal crossed from one compartment to the other. Performance on the rota rod was unaffected. In the hole board test, the extract significantly increased head-dip counts. *Mercurialis annua*, in contrast to diazepam, had no effect on locomotion.

Conclusions: These results provides support for anxiolytic activity of *Mercurialis annua*, in line with its medicinal traditional use, and may also suggest a better side-effect profile of Mercurialis anua relative to diazepam.

Keywords: Anxiety, *Mercurialis annua* aqueous extract, Rota rod test, Hole board test, Light–dark test, Morocco

Speaker Biography

Zouhra Doukkali works as a faculty member at University Mohammed V of Rabat at Morocco

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Ki-Bong Song et al., Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

Sequencing of the saliva of normal person and AD patients

Ki-Bong Song and **Yo-Han Choi**
ETRI, Korea

Recently, we show that salivary β-amyloid protein (Aβ) can be a potential biomarker to early diagnose Alzheimer's Disease (AD). At results, the quantity of Aβ40 and Aβ42 in the saliva of normal young man (nYM) group, normal elderly (nE) group and AD patients was measured in the range from very low concentration (~ pg/ml) to high concentration (~ng/ml). To find out another bio-marker in the saliva, using Maldi-tof, we analyzed the size of the salivary protein below less than 20 kDa. As a result, we found that there was a specific protein which can distinguish the Np from the AD patients and the size of that was about 15 kDa. In this study, we will briefly introduce that the sequencing results for the salivary protein which can distinguish between Np from the severe AD patients. Therefore, we expect these results to further increase the accuracy of the diagnosis of AD when the Aβ level diagnosis was adapted simultaneously.

Speaker Biography

Ki-Bong Song has received his PhD degree in Physics, from the Department of Physics of Sogang University, Korea. After working as a Post-doc in KIST (Korea Institute of Science and Technology), he is now a Principal Researcher in ETRI (Electronics and Telecommunications Research Institute), Korea. His main research includes diagnosing technique in AD and development of wearable technology.

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Hippolyte T Siyou, Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

Intrapartum risk factors of neonatal encephalopathy at the gynaeco-obstetric and pediatric hospital in Yaounde

Hippolyte T Siyou
Yaounde Gynaeco-Obstretric and Pediatric Hospital, Cameroon

Statement of the Problem: Neonatal encephalopathy (NE), a clinically defined syndrome of disturbed neurologic function in new born babies, is a serious public health concern. This condition often results in serious health consequences including death, cerebral palsy, developmental delay and seizure disorder. However, the underlying causes of NE are often poorly understood, and its treatment is primarily focused on the management of its risk factors. The purpose of the study was to identify intrapartum risk factors that influence the occurrence of neonatal encephalopathy at Yaounde Gynaeco-Obstetric and Pediatric Hospital.

Methods: This cross-sectional study involved 180 neonates (90 cases and 90 controls). The case group included only the clinical elements of the Sarnat's staging. A questionnaire was used to collect data from both mother and child. The independent variables associated with intrapartum were labor conditions, membrane rupture, presentation and mode of delivery. Data were analyzed using the Chi-square test (significance level at $p<0.05$).

Findings: The occurrence of hypoxic-ischemic encephalopathy was significantly determined by prolonged labor ($p=0.000$), arrest of labor ($p=0.005$), prolonged membrane rupture ($p=0.007$), non-cephalic presentation ($p=0.001$), and cesarean delivery ($p=0.001$).

Conclusion & Significance: This study has shown that intrapartum is a critical period associated with several risk factors of neonatal encephalopathy. To reduce the risks and consequences of neonatal encephalopathy, health education programs should be developed to educate pregnant women about precautions to be taken during pregnancy. Moreover, doctors, nurses and related health professionals should be continually trained in the management of the NE risk factors during intrapartum period.

Speaker Biography

Hippolyte T Siyou is a Pediatrician at the Yaounde Gynaeco-Obstetric and Pediatric in Cameroon. He has more than 10 years of experience in pediatric care, research and supervision of dissertations of Medical students. He has earned a Doctorate degree in General Medicine and a specialization Diploma in Pediatrics from the Faculty of Medicine and Biomedical Sciences of the University of Yaounde. He has attended several post specialization trainings in France and China.

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Accepted Abstracts

Brain Injury and Dementia care 2017

4th International Conference on

BRAIN DISORDERS AND DEMENTIA CARE

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Toronto, Canada

Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

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August 14-16, 2017 | Toronto, Canada

Why person-centered care with the dementia client?

Claire M Henry
Regis College, USA

Person-centered care models with reference to dementia care, has demonstrated positive outcome for behavioral disturbance. The leadership, guidance and training on championing this model into practice is lacking in our healthcare delivery system. The intent here will be to increase awareness and understanding about person-centered care for people with dementia. Discussion will include complex needs of people with dementia, leading to compromised behavioral symptoms; including sleep-wake-cycle disturbance, verbal outbursts and aggression. Further discussion encompasses evidence based outcomes with the use of person-centered care that focuses on preserving the "personhood" of the individual.

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Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

4th International Conference on

BRAIN DISORDERS AND DEMENTIA CARE

August 14-16, 2017 | Toronto, Canada

Dementia and care practice

Krista Burns
American Posture Institute, USA

The American Posture Institute is the world's leading resource in Post-graduate online posture education. Specializing in advanced postural education, the American Posture Institute has created two flagship programs for Health care professionals including the "Certified Posture Expert" program and the "Certified Postural Neurologist" program. Thousands of health care professionals in over 30 countries worldwide have implemented the American Posture Institute's postural correction protocols into their clinics. The Certified Posture Expert program emphasizes the public health impact of postural decline and how to overcome obstacles leading to poor posture. The Certified Postural Neurologist program educates health care professionals how to analyze and correct posture from a brain based perspective to create long-term, neuroplastic changes of the posture system. Poor posture is a modern-day epidemic that is affecting our society in a way that we have never seen before. Posture is declining at the speed of technology. Advancements in technology combined with a sedentary society and poor posture habits while engaging with technology has changed the course of evolution. "Tech Neck" demonstrates postural decline from a musculoskeletal perspective and "Digital Dementia" demonstrates the decline in brain function associated with poor posture and the over utilization of technology. Patients presenting with Digital Dementia demonstrate common symptoms associated with Dementia and physiological changes in their brain. The purpose of this presentation is to introduce the concept of Digital Dementia and to demonstrate meaningful methodology of patient care implementation for health care professionals to utilize with their patients.

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Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

4th International Conference on

BRAIN DISORDERS AND DEMENTIA CARE

August 14-16, 2017 | Toronto, Canada

Clinical and radiological presenting features and post-operative complications of intracerebral haematoma by burr-hole operation using urokinase

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This was a prospective and interventional type of study conducted in the Neurosurgery Department of Dhaka Medical College Hospital (DMCH), Dhaka from July 2010 to December 2010 with a sample size of 30 to observe the presenting feature, radiological findings and complications of burr-hole aspiration of intracerebral haematoma by using urokinase. Purposive sampling technique was used using a semi-structured data collection sheet designed for this study. Equipments used for the study were CT scan, soft catheter and standard burr-hole instrument. It was observed that 73% of the cases were within 9-12 GCS. Basal ganglia were involved in about 77% cases while fronto parietal lobe was involved in only 3% cases. CT scan revealed that half [15 (50.00%)] of the patient's haematoma was in the left hemisphere. Without considering the volume of extension into the ventricles, the average intracerebral haematoma volume was 41.43 ml and the volume ranged from 20.0 to 80.0 ml. [18 (60.0%)] of the patients had ventricular extension of the haematoma. Three-fifth of the haematomas were complicated with ventricular extension. More than one-fourth of the patients [8 (26.67%)] died before 3rd POD. In a single (3.33%) patient GCS decreased. Out of the remaining 21 cases, GCS increased 1 to 5 points. Pneumocephalous was the complication in about 17% cases, while accidental catheter withdrawal and aspiration pneumonia were the complications in about 7% each. It was revealed that 50% deaths were due to respiratory failure and all these deaths were before 3rd POD. Involvement of different areas of the cerebral hemisphere had strong association in outcome, when only death was considered; i.e. only 14.3% patients with cortical haematoma died on the contrary, 85.7% patients with ICH in the basal ganglia with ventricular extension (3 or more ventricles) died. Early treatment (within 24 hours of occurrence) by using minimally invasive technique and clot removal by urokinase mediated clot lysis can improve the consequences especially those with haematoma volume <40 ml, lobar haematoma and without ventricular extension.

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Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

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August 14-16, 2017 | Toronto, Canada

Blocking the LINGO-1 pathway as a novel therapeutic approach for CNS remyelination and repair: From discovery to clinical trials

Sha Mi
Biogen, USA

LINGO-1 is a leucine rich repeat, Ig domain containing, Nogo receptor interactive protein that is selectively expressed in CNS oligodendrocytes and neurons. Its expression is developmentally regulated, as well as up-regulated in CNS diseases and spinal cord injury. LINGO-1 negatively regulates oligodendrocyte differentiation and myelination, neuronal survival and axonal regeneration by activating RhoA and inhibiting ATK phosphorylation. Opicinumab (anti-LINGO-1) is the first anti-LINGO-1 antibody to enter clinical development for CNS repair. The Phase I study found anti-LINGO-1 to be safe and well tolerated up to the maximum planned dose of 100 mg/kg. In the Phase II Renew trial, compared with placebo, participants treated with opicinumab showed improved optic nerve conduction latency (measured by full-field visual evoked potential), and indicative of remyelination. In the phase 2b SYNERGY (active relapsing MS trial), an inverted U-shaped dose response was seen in SYNERGY suggesting a clinical effect of opicinumab.

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Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

controller system that maintains the user`s focus up using Passive brain comfort/frustration signals in a smart office environment

Ghada Al-Hudhud
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The aim of this project is to develop a smart controller system that maintains the user`s focus up using Passive brain comfort/frustration signals in a smart office environment. This system combines multiple features that differentiate it from the currently published works. It uses the passive Brain signals to determine the attention`s level of the workers. Additionally, it will observe the environment factors in the office such as temperature, light brightness level, noises, and open/closed curtains in real-time. The system will control and adjust the environment factors in the office based on the analysis of collected data in order to maintain the user`s focus on a high level in the cases of brain injuries that affects the physical movement, and / or the speech ability. It is based on measuring the comfort and the frustration brain signal of the user and adjust the environment accordingly. LabVIEW Software and Devices will be used to develop the system; which will provide powerful control over the system and the used devices. This project is expected to add a value to research about the smart cities infrastructures, and to the research about the focus and productivity at smart offices. In addition, it is expected to add value to research in the brain-computer interface field especially for the passive signal processing area.

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Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

4th International Conference on

BRAIN DISORDERS AND DEMENTIA CARE

August 14-16, 2017 | Toronto, Canada

Proposed new classification of behaviors in dementia

Atul Sunny Luthra
Homewood Health Centre, Canada

Objectives: Currently, there is a vast heterogeneity in terminology and classification of behaviors used in dementia care, with no universally accepted classification system. This presentation will establish and discuss in detail clinically meaningful categories for the classification of behaviors, using a new behavioral scale called LuBAIR (Luthra's Behavioral Assessment and Intervention Response.) It is intended for audiences of all disciplines and backgrounds in geriatric psychiatry and dementia/NCD.

Methods: Criteria proposed by Davis, Buckwalter and Burgio (1997) were identified as the basis for classification of behaviors in dementia. A review of the literature was done to identify the "Specification of the Theoretical Construct" (STC) to justify aggregation of similar behavioral symptoms into clinically meaningful categories.

Results: STC identified are divided into four behavioral constructs used to categorize behaviors in dementia: Theories of information processing, theories based in motivation and needs, theories based in the regulation of emotions, and theories based in compliance and aggression. Each construct is subdivided into different categories: Theories of information processing (TIP): disorganized behaviors (DOB) and misidentification behaviors (MiB); motivational and needs-based theories: apathy behaviors (AB), goal-directed behaviors (GDB), motor behaviors (MB), and importuning behaviors (IB); theories on the regulation of emotions: emotional behaviors (EB), fretful/trepidated behaviors (FTB), and vocal behaviors (VB); theories on compliance and aggression: oppositional behaviors (OB), and physically aggressive behaviors (PAB).

Discussion: The STC identified for these behavioral constructs result from alterations of the physiological and emotional statuses of patients with dementia. Physiologically, DOB and MiB occur due to fragmentation of information processing and, for MiB specifically, the breakdown of schema identification and pattern recognition. Motivational and needs-based behaviors stem from changes in motivational drives; while GDB and IB result from an increase in motivational drive in detection and fulfillness of needs of "belongingness" and physiological needs (respectively). Motor behaviors (MB) are due to varying degrees of changes in motivational drives, and are concomitants to other behavioral categories. EB and FTB are based in the expression of negative emotions; feelings of melancholy and discontentment give rise to EB to allow for catharsis and subsequent decompression from pain, and FTB express emotions of fear, illustrating insecurity needs to caregivers. VB can be based in both emotions of joy or anger, and highlight the "out of proportion" nature of patient responses. Finally, oppositional behaviors (OB) are determined by the degree of cognitive impairment of patients with dementia, and result from non-compliance with direction, where PAB occur due to a patient's perceived impediment in goal attainment.

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Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

4th International Conference on

BRAIN DISORDERS AND DEMENTIA CARE

August 14-16, 2017 | Toronto, Canada

Surgical treatment of traumatic posterior fossa epidural hematoma

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The objective of the study is to assess clinical features and imaging study and surgical treatment outcomes. We carried out a retrospective analysis, 71 cases of patients with Posterior Fossa Epidural Hematoma PFEDH who were admitted to the Cho Ray Hospital (Ho Chi Minh, Vietnam) from 2011 through 2013. Diagnosis was established in all patients with the aid of CT scanning because the clinical manifestations were frequently nonspecific. Cases were stratified by clinical course, Glasgow Coma Scale score, and their image head CT status. Based on clinical and radiological parameters of head CT the patients underwent surgical procedure. Seventy-one patients underwent surgery. Mostly male individuals were affected with PFEDH. The results of research on the surgical treatment of epidural hematoma after traumatic posterior fossa of 71 cases includes- Results regarding clinical features and imaging: Factors such as age epidemiology are common in ages from 20-30 years old. Found more men and women with the proportion of male/female: 4/1. Causes of injury in CHORAY hospital in Vietnam we recorded realized mainly because of traffic accidents accounted for 71.8%, the accident usually happened to a group of workers. In clinical we noted that patients hospitalized with a history of head injury or occipital region accounted for 100%. Bruising, wound or contusion occipital scalp accounted 88.7%, headaches 64.8%, nausea or vomiting 17/71 (23.9%), dizziness 7/71 (9.9%), otorrhea 4/71 (5.6%), neck stiffness 2/71 (2.8%) of cases. On detection head CT occupies 95.8% occipital bone fracture, deformation of cerebral ventricular image occupies 67.6%, midline shift 28.2%. Fourth ventricular collapse accounted for 56.4%. Shape style typical hematomas accounted 97.2% biconvex (lenticular). Underlying intra-cerebral lesions accounted for 63.38%. Most cases of our posterior fossa epidural hematoma starting surgical treatment with a minimum of 12 ml hematoma, a minimum thickness of 1.3 cm; Results regarding evaluation result of surgical treatment: All our 71 cases were treated with surgery. The technique of surgery craniectomy and hematoma removal accounted for 66.2%, craniectomy leaving the bridging skull bones accounted for 33.8%. Source found intraoperative bleeding, bleeding from the bone marrow fracture 85.9%, unknown cause 7.0%, venous sinus 5.6% and 1.4% dural arteries. Underlying intracranial surgery accounted for 15.5% of cases. Successful surgical outcome with a good recovery rate return to the normal activities accounted for 87.3%, moderate functional losing 8.5%, severe functional loss of 2.8%, no case of vegetative state. The early complication is accounting for 5.6% which re-operative accounted for 1.4% within the early complication. The mortality rate of 1.4% we occupy among the re-operative complications. Using statistical methods, we noted factors affecting treatment outcomes include the following elements: GCS score at composing surgery, underlying intracranial surgery and midline shift.

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Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

4th International Conference on

BRAIN DISORDERS AND DEMENTIA CARE

August 14-16, 2017 | Toronto, Canada

Overcoming life with a traumatic brain injury

Amy Zellmer
Brain Injury Association of America, USA

Brain Injury is an invisible and silent epidemic with 2.8 M Americans affected annually. It is the leading cause of death and disability in the World. Yet, it is far too often misunderstood and undiagnosed by doctors, leaving survivors and their family members to tread through murky waters while trying to understand why their life has been turned upside down. I believe that better education and awareness through advocacy is the front line of defense in this battle that so many of us struggle through daily. After a slip on the ice in February of 2014 my life has never been the same. I live with constant dizzy and balance problems, cognitive deficits, and short- term memory issues. I easily fatigued after doing simple tasks that I used to take for granted such as washing the dishes or carrying in the groceries. I was easily confused by anything with touch buttons and some days still don't understand how to use the microwave or pay-at-the-pump gas stations. While friends and family drifted away, doctors kept telling me that I would be fine in a few more weeks (even after months of no improvement), and some even accused me of not trying hard enough to get better. It took me two and a half years to finally find a doctor who had a better understanding of how my eyes and brain weren't communicating with each other properly and was able to help me with simple eye exercises. I'm a strong, independent woman now and it took me this long advocating for my health, imagine what it takes for those who are less able to voice their mounting concerns. Through my presentation, I hope to help the healthcare professionals understand what it's really liked to live with a brain injury, and help the scientific community understand why more research is needed in hopes of finding better ways of prevention and treatment. I will take attendees through my journey showing them the struggles and triumphs in hopes that hearing from a survivor may help them in their practice and/or research.

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Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

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Can caloric restriction prevent ageing and dementia? Lessons learned from anorexia nervosa

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Ageing, encompassing physical, psychological, and social changes, represents the accumulation of changes in human beings over time. The biological reasons of getting old are still uncertain: the accumulation of DNA damage due to oxidation processes and the planned ageing related to DNA methylations leading to programmed cell death (apoptosis) are claimed as the most likely determinants of the ageing process. Ageing is the greatest known risk factors for most human diseases. About two thirds of the deaths worldwide are due to age-related causes. The word dementia describes a decline in memory or other thinking skills or mental abilities severe enough to reduce a person's ability to perform everyday activities. Although dementia is an age-related disease (both incidence and prevalence increase with increasing age), many older adults maintain enough cognitive abilities to function well and strategies aimed at preventing dementia are effective. Prevention focuses on countering risk factors for vascular disease, such as diabetes, midlife hypertension, midlife obesity, midlife cholesterol, mid- and late-life depression as well as lifestyle factors such as smoking, physical inactivity, and poor diet. Anorexia nervosa is an eating disorder characterized by weight loss (or lack of appropriate weight gain in growing children); difficulties maintaining an appropriate body weight for height, age, and stature; and in many individuals, distorted body image. People with anorexia generally restrict the number of calories and the types of food they eat. Some people with the disorder also exercise compulsively, purge via vomiting and laxatives, and/or binge eat. Anorexia can affect people of all ages, genders, sexual orientations, races, and ethnicities. Historians and psychologists have found evidence of people displaying symptoms of anorexia for hundreds or thousands of years. People in non-Westernized areas, might also be diagnosed with anorexia nervosa. Although the disorder most frequently begins during adolescence, an increasing number of children and older adults are affected nowadays. There is a necessity to focus on questions like: Are there scientific evidences of a different age- and health- lifespan in persons affected by Anorexia compared to the general population? Which is the available literature on Anorexia Nervosa on senile age? Is it possible to prevent dementia through caloric restriction? Does body weight have an influence on dementia development? Does Anorexia Nervosa have lessons to teach to dementia researchers and policy makers?

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