

A Review on Approaches and Assumptions in Human Neuroscience

Srilatha B*

Department of Bio-Technology, Presidency College, Bangalore, Karnataka, India

Review Article

Received: 10/12/2016
Revised: 15/12/2016
Accepted: 20/01/2017

*For Correspondence

Srilatha B, M.sc Bio-Technology,
Presidency College, Bangalore,
Karnataka.

E-mail:

srilatha.biotech09@gmail.com

Keywords: Neuroscience, Brain,
Neurological diseases

ABSTRACT

Neuroscience or Neural Science is a multidisciplinary science mainly deals with the study of the structure and function of the nervous system. Neurosciences the core subject deals with the evolutionary studies, [developmental biology](#), cellular studies and [molecular biology](#) at the very cellular level, physiology, anatomy and pharmacology and pharmacological studies of the nervous system, as well as computational, behavioural and [cognitive neurosciences](#). Neuroscientist mainly studies on the brain and related organs and their impact on behaviour, neural and cognitive functions. Neurologists or Neuroscientists also focusses on what happens to the nervous system when people have neurological, psychiatric and [neurodevelopmental disorders](#).

INTRODUCTION

Nervous system can be split into two parts one is the central [nervous system](#) includes brain and spinal cord, and the peripheral nervous system is the part of the nervous system which consists of the nerves, ganglia outside the brain and spinal cord. In many species including human beings the nervous system is the most complex organ system in the body, residing in the inner part of the brain. The human brain alone contains around 100 billion [neurons](#) and 100 trillion synapses and many substructures which are connected to each other in synaptic or lobed networks. Approximately 25-30,000 genes belonging to the human genome are expressed specifically in the brain [1-10].

People should be educated and obtain knowledge on various functions of the brain and these diseases so that the right preventive measures can be taken during their occurrence. People can gain awareness through literature, internet sources, family physicians and consultants. [Open access journals](#) provide more visibility and accessibility to the readers in gaining the required information. The on-going researches all over the world, which are being exhibited through open access journals, serve as the main source of information in various fields.

In order to create awareness among the people, group of physicians and professionals unite to form a [society](#) or an organization. The main aim of these societies or organisations is to counsel or spread awareness among the victims of brain disorders as well as healthy professionals, Neurologists, Psychologists and scholar researchers. Major societies like [Autism Community Network](#) aims to improve public awareness in brain related disorders like autism. Autism Spectrum Disorder (ASD) is a complex neurobiological disorder known simply as autism and the advancement of quality standards to enhance patient care [11-24]. [European Academy of Neurology](#) of Austria is being organized by OMICS Group International. OMICS Group International is an amalgamation of Open Access publications and worldwide international science conferences and the scientific events conducted in the field of Neurology. [EDYCS Epilepsy Group](#) EDYCS Epilepsy Group is the leading NGO and associated with the OMICS International and is primarily dedicated to uphold the rights and addressing the needs of all those affected by epilepsy, through the promotion and provision of high quality services and working to ensure the continual

enhancement of the quality of the people it serves. [Epilepsy Association of Sierra Leone](#) associated with the OMICS International demystify this contentious condition and give readers the minimum knowledge to understand people with epilepsy and to spread this knowledge in the health community as well as the community at large in order to decrease the widespread misconception about epilepsy. [American Society of Human Genetics](#) is involved in providing support to Neurology related disorders patients promoting the advances in the diagnosis and treatment of genetic diseases. The main objective of these societies is to disseminate the scientific knowledge to Neurologists and researchers so that they can provide better service to the patients and work together to reduce the risk of neurological disorders. The society enables the understanding of the disorders by creating awareness among the global communities.

Open Access literature plays a key role in proving the information and current researches across the globe. [Journal of Neurology and Neuroscience](#) provides information on latest technologies related to Neurology and Neuroscience (PCI) and also many conferences like [Neuroscience Conferences](#) in the field of Neuroscience provide a platform for clinicians, researchers, surgeons, health practitioners as well as industrial leaders to participate their views at our Neuroscience Conferences and discussing many Neurology related disease such as Brain Disorders, Alzheimer's disease, Dementia, Neurology Parkinsons, Neurosurgery, Spine. [Journal of Neuroinfectious Diseases](#) is an international [peer-reviewed scholarly journal](#), which published the papers across the world on Neuroinfectious disease as a Volume 7, Issue 3.

[Journal of Neurological Disorders](#) Journal studies improve the knowledge and provide cutting-edge research strategies for the development of new therapeutics. [Journal of Neuroscience & Clinical Research](#) is a leading provider of information on neurological diseases and novel methods of treatment followed. The above mentioned Open access journals on Neurology are the peer-reviewed journals that maintain the quality and standard of the journal content, reviewer's agreement and respective editor's acceptance in order to publish an article. These journals ensures the barrier-free distribution of its content through online open access and thus helps in improving the citations for authors and attaining good [journal impact factors](#).

NEUROLOGICAL RELATED DISORDERS

The most common Neurological diseases include Alzheimers, Autism, Bipolar Disorder, Brain Disorders & Therapy, Depression and Anxiety, [Epilepsy](#), Mental Disorders, Multiple Sclerosis, Neuroimmunology, [Neurological Disorders](#), Neurorehabilitation, Neuroinfectious Diseases Of these diseases mentioned, Alzheimers are the most prevalent in USA which include Neurological Disorders, Stroke, Depression and Anxiety, Epilepsy, Brain Disorders are common.

Patient suffering from Alzheimer's disease also called as [Dementia](#) generally develops among the old age, leading to loss of memory and cognitive functioning such as thinking, remembering and reasoning and behavioural abilities that disturbs the daily routine of the affected people. Parkinsonism is a [neurodegenerative disease](#) with symptoms like tremor, rigidity and postural problems. Through Open access healthcare literature provides information of novel researches on-going in the current era. Here is the list of few articles which provide reports that are competent enough for a person to attain knowledge on Neurology. An article Evaluation and Comparison of Dietary Patterns in Patients with Alzheimer's disease and Healthy Controls written by Nimah Bahreini, explains Alzheimer disease (AD) is a chronic and progressive neurodegenerative disorder, with multiple pathophysiological mechanisms which features mainly with memory impairment and loss of cognitive function. In 2015, about 48 million people suffering from Alzheimer disease throughout the world. [Parkinson's disease](#) ^[25-40] is a common neurodegenerative disorder belonging to a heterogeneous group of disorders with α -synuclein pathology and PD dementia. Hypoestoxide is being developed to combat microgliosis, astrogliosis, loss of dopaminergic neurons, motor behavioral deficits and α -synuclein pathology in [Kimberly Burnham](#) clearly explained Narrative therapy (story telling) and expressive poetry (sensory words) can be used to engage the mirror neurons and motor neurons in the brain and decrease the symptoms in Parkinson's disease ^[41-60].

Dysthymia is a mild but long-term (chronic) form of depression. Symptoms usually last for at least two years, and often for much longer than that. [Dysthymia](#) interferes with your ability to function and enjoy life ^[61-70]. With dysthymia, you may lose interest in normal daily activities, feel hopeless, lack productivity, and have low self-esteem and an overall feeling of inadequacy. In a manuscript entitled Attitudes toward Seeking Treatment for Depression among Community Dwelling Elders in a Western City in the United States authored by Frances Wilby MSW of USA provides data regarding dysthymia is a life-threatening consequences, depression among older adults is undertreated in many nations. One study of community dwelling elders in a Dutch community found that only

4.9% who experienced significant [depressive symptoms](#) received [treatment](#) for their condition. [2nd International Conference on Neurological Disorders and Stroke](#) held in April 2016 in Dubai, ohamad Fayez Al Homsy presented his views on Dehydration exacerbates cerebral microvascular responses to hyperthermia.

Apart from the articles, presentation at conferences, symposiums, workshops also yield a better exposure to health information and advanced technologies that are being invented in the present generation. In [7th Global Neurologists Annual Meeting on Neurology and Neuro Surgery](#) held in August 2016 in Austria , Harish C Pant has discussed about a A novel therapeutic approach to ameliorate the Parkinson's and Alzheimer's Disease phenotypes At [2nd International Conference on Brain Disorders and Therapeutics](#) Ann Marie Gillie, discussed about the Epilepsy.

NOVEL TECHNOLOGIES IN NEUROSCIENCES

As the Neurological diseases have become more prevalent, there are many scientific professionals are trained especially in detecting, treating and counselling the prevention of [Neurological disorders](#) and these professionals are well known as Neurologists. There exist so many Neurologists in USA as per a survey conducted in 2016. In order to diagnose the condition of the brain, physicians proceed for Electrodiagnostic tests which include electromyography (EMG) and nerve conduction velocity (NCV) testing ^[71-76]. [Liyang Cui](#) is a scientific professional with research expertise in Neurology. Liyang Cui has presented such as the external anal sphincter is innervated by Onuf's nucleus, which is located in the anterior horn of the spinal cord at the S2 level through the pudendal nerve. Lesions of Onuf's nuclei and the roots of the sacral and pudendal nerves could be displayed by the external anal sphincter electromyography (EMG), an important neurophysiological method widely used by neurologists.

[Ninh Doan](#) well known scientist of Neurology clearly explained Traumatic brain injury (TBI) remains a significant problem in both the pediatric and adult populations. Approximately 500,000-700,000 pediatric TBI incidents and 2.5 million adults are suffered from TBI every year. TBI is ranged from mild to severe and its management depends of the severity of the injury.. Through this test we can know the size of the heart, thickness of the walls of the heart, presence of stenosis and regurgitation of blood ^[77-90].

[Electroencephalography](#) and Brain Imaging is one more technique [Gadolinium-chelates](#) are frequently used to evaluate a variety of pathological conditions of brain during magnetic resonance imaging (MRI). Pre and postcontrast T1-gradient recalled echo (T1GRE) scans are usually compared for assessing the various characteristics of lesions as vascularity, internal [necrosis](#) or breach in blood brain barrier. [Arthur L. Brody](#) of USA is one of the experts in the field of Psychiatry & Biobehavioral Sciences with expertise in Psychiatry ^[91-100].

CONCLUSION

Neurological disorders are most prominent and prevalent in USA. Many innovative technologies have been developed to reduce the mortality due to Neurological Problems. [Neurological Disorders](#) occur when brain is damaged by injury, disease, or health conditions or external conditions such as family and environment. The three brain chemicals noradrenaline, dopamine and serotonin are involved in both bodily functions and brain. The goal of this session is to understand the Causes, Origin, Genesis and Source of various types of Neurological disorders. All this information can be accessed in open access health care literature which exhibits the novel techniques and innovative researches taking place in the research field. Many professionals share their views; suggestions through the [open access literature](#) which can be accessed by all in order attain knowledge on brain diseases. Although neurological disease is the major problem in USA, the developed technologies, awareness through the literature have given hope to the patients for reducing the mortality rate.

REFERENCES

1. ZJ Cai. The neural mechanism of declarative memory consolidation and retrieval: A hypothesis. *Neurosci Biobehav Rev.* 1990;14:295-304.
2. S Groch, et al. The role of REM sleep in the processing of emotional memories: evidence from behavior and event-related potentials. *Neurobiol Learn Mem.* 2013;99:1-9.

3. B Baran, et al. Processing of emotional reactivity and emotional memory over sleep. *J Neurosci*. 2012;32:1035-1042.
4. D Popa, et al. Coherent amygdalocortical theta promotes fear memory consolidation during paradoxical sleep. *Proc Natl Acad Sci USA*. 2010;107:6516-6519.
5. M Nishida, et al. REM sleep, prefrontal theta, and the consolidation of human emotional memory. *Cereb Cortex*. 2009;19:1158-1166.
6. MM Menz, et al. The role of sleep and sleep deprivation in consolidating fear memories. *Neuroimage*. 2013;75:87-96.
7. GW Vogel. A review of REM sleep deprivation. *Arch Gen Psychiatry*. 1975;32:749-761.
8. GW Vogel. Evidence for REM sleep deprivation as the mechanism of action of antidepressant drugs. *Prog Neuropsychopharmacol Biol Psychiatry*. 1983;7:343-349.
9. Morrison JC and Elliott JP (2016) Autism Spectrum Disorders are not linked to β -2-Adrenergic Receptor Agonists Treatment for Preterm Labor/Asthma. *J Clin Med Genomics* 2016:4:144.
10. Shen C and Zuo Z (2016) Zebrafish as a Model to Study Autism Spectrum Disorder Caused by Environmental Chemicals Exposure. *J Alzheimers Dis Parkinsonism* 2016:6:288.
11. Xu L, et al.(2016) Chromosomal Microarray Genetic Testing – A Qualitative Investigation among Parents of Children with Autism Spectrum Disorders in Rural North Carolina. *J Clin Med Genomics* 2016:4:143.
12. Golzari F, et al. The effect of a social stories intervention on the social skills of male students with autism spectrum disorder. *SAGE Open*. 2015.
13. Bellini S, et al. A meta-analysis of school-based social skills intervention for children with autism spectrum disorders. *Remedial and Special Education*. 2007;28:153-162.
14. Powell TH and Gallagher PA. *Brothers and sisters: A special part of exceptional families*. Brookes, Baltimore, USA, 2nd edition. 1993.
15. Stalker K and Connors C. Children's perception of their disabled siblings: 'She's different but it's normal for us'. *Children and society*. 2004;18:218-230.
16. Beyer JF. Autism spectrum disorders and sibling relationships: Research and strategies. *Education and Training in Developmental Disabilities*. 2009;44:444-452.
17. Dewey D and Kaminsky L. Sibling relationships of children with autism. *Journal of Autism and Developmental Disabilities*. 2001;31:399-410.
18. Foden TJ. *Sibling studies: The good, the bad and the contradictory*. 2007.
19. Hodapp RM and Urbano RC. Adult siblings of individuals with Down's syndrome versus with autism: Findings from a large-scale US survey. *Journal of Intellectual Disability Research*. 2007;51:1018-1029.
20. El-Ghoroury H and Romanctzky. Play interaction of family members towards children with autism. *Journal of Autism and Developmental Disabilities*. 1999;28:249-258.
21. Perner J, et al. Theory of mind is contagious: You catch it from your siblings. *Child Development*. 1994;65:1228-1238.
22. Cassidy KW, et al. Theory of mind is contagious, but you don't catch it from your twin. *Child Development*. 2005;76:97-106.
23. Seltzer MM, et al. Siblings of individuals with an autism spectrum disorder: Sibling relationships and well-being in adolescence and adulthood. *Autism*. 2009;13:59-80.
24. Shattuck PT, et al. Changes in autism symptoms and maladaptive behaviors in adolescents and adults with autism spectrum disorders. *Journal of Autism and Developmental Disabilities*. 2007;37:1735-1747
25. Caldeira GL, et al. Impaired transcription in Alzheimer's disease: Key role in mitochondrial dysfunction and Oxidative Stress. *J Alzheimers Dis*. 2013;34:115-131.
26. Fleming JL, et al. The role for oxidative stress in aberrant DNA methylation in Alzheimer's disease. *Curr Alzheimer Res*. 2012;9:1077-1096.
27. Venkateshappa C, et al. Elevated oxidative stress and decreased antioxidant function in the human hippocampus and frontal cortex with increasing age: implications for neurodegeneration in Alzheimer's disease. *Neurochem Res*. 2012;37:1601-1614.
28. Mohsenzadegan M and Mirshafiey A. The immunopathogenic role of reactive oxygen species in alzheimer disease. *Iran j allergy asthma immunol*. 2012;203-216.

29. Kim K, et al. A comparison of three types of trail making test in the Korean elderly: higher completion rate of trail making test-black and white for mild cognitive impairment. *J Alzheimers Dis Parkinsonism*. 2016;6:239.
30. Wu Y, et al. Observation study of the retina with the Alzheimer 's disease or amnesic mild cognitive impairment patients. *J Clin Exp Ophthalmol*. 2016;7:545.
31. Zhou B, et al. Shanghai cohort study on mild cognitive impairment: study design and baseline characteristics. *J Alzheimers Dis Parkinsonism*. 2016;6:224.
32. Shinno H, et al. Alterations in rapid eye movement sleep parameters predict for subsequent progression from mild cognitive impairment to Alzheimer's disease. *J Alzheimers Dis Parkinsonism*. 2016;6:218.
33. Nakaya M. Cognitive impairment in Bipolar disorder: comparison with cognitive impairment in Schizophrenia. *Bipolar Disord*. 2016;2:106.
34. Rima R. A Cohort study of cognitive impairment in patients of Multiple Sclerosis. *J Mult Scler*. 2015;2:161.
35. Cintra MTG, et al. P300 evoked potential and risk of mild cognitive impairment progression to Alzheimer's Dementia: A Literature Review. *J Neurol Neurophysiol*. 2015;6:322.
36. Ono S. FMT-PET for the early diagnosis of Parkinson's disease . *J Neurol Disord*. 2014;2:i104.
37. McDonald KR, et al. Personality style in behavioural disturbances in Parkinson's disease. *J Neurol Neurophysiol*. 2014;5:251.
38. Haram A, et al. Clinical correlates of RBD in early Parkinson disease. *J Alzheimers Dis Parkinsonism*. 2014;4:174.
39. Okada Y, et al. Rehabilitation for postural deformities in Parkinson's disease: An update and novel findings. *J Nov Physiother*. 2014;4:233.
40. Okada Y, et al. In-home posture evaluation and visual feedback training to improve posture with a kinect-based system in Parkinson's disease. *J Nov Physiother*. 2014;4:232.
41. Vanessa KH, et al. Forced exercise for freezing of gait in post STN DBS Parkinson's disease patients. *J Alzheimers Dis Parkinsonism*. 2014;4:171.
42. Whitesman P. Preliminary set theory-type analysis of proteins associated with Parkinson's disease. *J Alzheimers Dis Parkinsonism*. 2014;4:170.
43. Bitner A, et al. The role of multidrug interactions in the safety of pharmacotherapy for concomitant Parkinson's disease and arterial hypertension in Poland. *J Pharmacovigilance*. 2014;2:151.
44. Barboza NM, et al. The effect of an exercise-based intervention to the quality of life of patients suffering from Parkinson's disease: Prospective study. *J Yoga PhysTher*. 2014;4:170.
45. Turner TH, et al. Epidermal growth factor (EGF) is associated with memory and executive functioning in progressed Parkinson's disease. *J Alzheimers Dis Parkinsonism*. 2014;4:164.
46. Hanby MF, et al. Emotional and cognitive processing deficits in people with Parkinson's disease and apathy. *J Alzheimers Dis Parkinsonism*. 2014;4:156.
47. Camargo CHF, et al. Orthostatic hypotension and its relationship to the clinical course of patients with Parkinson's disease. *J Alzheimers Dis Parkinsonism*. 2014;4:155.
48. Seitz RJ, et al. Monitoring of visuomotor coordination in healthy subjects and patients with stroke and Parkinson's disease: An application study using the PABLOR-device. *Int J Neurorehabilitation*. 2014;1:113.
49. Bryan Lieber BA, et al. Motion sensors to assess and monitor medical and surgical management of Parkinson's disease. *Int J Phys Med Rehabil*. 2014;2:221.
50. Leroi I, et al. Apathy and emotional blunting in Parkinson's disease. *Brain Disord Ther*. 2014;3:141.
51. Lu J. Modeling Parkinson's disease with human induced pluripotent stem cells. *Clon Transgen*. 2014;3:e113.
52. Werner FM and Covenas R. Classical neurotransmitters and neuropeptides involved in Parkinson's disease: A multi- neurotransmitter system. *J Cytol Histol*. 2014;5:266.
53. Byl N, et al. Aerobic exercise enabled with rehabilitation technology improves mobility and balance of patients with Parkinson's disease: A quality assurance report. *Int J Phys Med Rehabil*. 2014;2:220.
54. Manckoundia P, et al. Alterations in olfaction during Alzheimer disease, Parkinson disease and lewy body disease. *J Alzheimers Dis Parkinsonism*. 2016;6:274.
55. McLarnon JG. Chemokine interleukin-8 (IL-8) in Alzheimer's and other neurodegenerative diseases. *J Alzheimers Dis Parkinsonism*. 2016;6:273.

56. Choi H, et al. Interaction between amyloid beta toxicity and the PI3K pathway in Alzheimer's disease. *J Alzheimers Dis Parkinsonism*. 2016;6:269.
57. Begum MM, et al. Anticholinesterase and antioxidant potentials of a medicinal plant *Abroma augusta*: Implications for the alternative treatment therapy of cognitive deficits in Alzheimer's disease. *Clin Pharmacol Biopharm*. 2015;4:148.
58. Mun MJ, et al. The genetic relationship between interleukin genes in Alzheimer's disease. *J Alzheimers Dis Parkinsonism*. 2016;6:263.
59. Dumont C, et al. Psycho-educational approach in Alzheimer's disease. *J Alzheimers Dis Parkinsonism*. 2016;6:261.
60. Uddin MS, et al. Searching the linkage between high fat diet and Alzheimer's disease: A debatable proof stand for ketogenic diet to alleviate symptoms of Alzheimer's patient with APOE ϵ 4 Allele. *J Neurol Neurophysiol*. 2016;7:397.
61. Jens W and Ahmed A. Peripheral Nervous System Involvement in Diabetes and Role of Rehabilitation. *Int J Neurorehabilitation* 2016;3:233.
62. Blumberg BM. The Signature: A Never-Sent Letter to the Editors of Neurology, Updated With Commentary and Guidelines for the Future. *J Neurol Disord*. 2016; 4:313.
63. Mamadou Z, et al. Stroke of Diabetic Subject: Experience of The Neurology Service of Cocody Teaching Hospital at Abidjan (Ivory Coast). *J Neurol Disord*. 2016;4:304.
64. Boubacar S, et al. Myelopathy in Pregnant Women: A Case of Acute Transverse Myelitis at Fann Department of Neurology in Dakar (Senegal). *J Spine*. 2016;5:330.
65. Sayce L, et al. Spasticity Diagnosis and Treatment in the United States – A Priority for our Aging Population. *Int J Neurorehabilitation*. 2016;3:216.
66. Wiley TS, et al. H1R Antagonists for Brain Inflammation and Anxiety: Targeted Treatment for Autism Spectrum Disorders. *J Pharm Drug Deliv Res*. 2015;4:3.
67. Sadras T, et al. The Role of Wnt/ β -Catenin Signaling in Normal and Malignant Hematopoiesis. *J Blood Res Hematol Dis*. 2016;1:1.
68. Barrett JA, et al. A Synthetic Biology Rheoswitch Therapeutic System[®] for the Controlled Local Expression of IL-12 as an Immunotherapy for the Treatment of Cancer. *Cell Biol (Henderson, NV)*. 2016;5:2.
69. Ma L, et al. Silver Sulfide Nanoparticles as Photothermal Transducing Agents for Cancer Treatment. *J Nanomater Mol Nanotechnol*. 2016;5:2.
70. Yrigollen CM, et al. (2016) Clinical and Molecular Assessment in a Female with Fragile X Syndrome and Tuberous Sclerosis. *J Genet Disor Genet Rep*. 2016;5:3.
71. Khalid A and Javaid MA. Matrix metalloproteinases: New targets in cancer therapy. *J cancer sci therol*. 2016;8:146.
72. Hussen RSD and Heidelberg T. Drug carriers in cancer therapy: administration, formulation and characterization. *IJPR*. 2016.
73. Dong J, et al. Targeting ROS for cancer therapy. *Chemotherapy (Los Angel)*. 2016;5:199.
74. Vaze OS. Pharmaceutical nanocarriers (liposomes and micelles) in cancer therapy. *J Nanomed Nanotechnol*. 2016;7:e138.
75. Varol M. Ultrasound-mediated cancer therapy as a non-invasive and repeatable treatment strategy. *J App Pharm*. 2016;8:2.
76. Efferth T and Shan L. Natural products for cancer therapy “is economic success reachable? *Med Aromat Plants*. 2016;5:E174.
77. Jens W and Ahmed A. Peripheral Nervous System Involvement in Diabetes and Role of Rehabilitation. *Int J Neurorehabilitation*. 2016;3:233.
78. Blumberg BM. The Signature: A Never-Sent Letter to the Editors of Neurology, Updated With Commentary and Guidelines for the Future. 2016;4:313.
79. Ramtinfar S, et al. Predicting the Destiny after Severe Traumatic Brain Injury; Multi Organ Dysfunction Syndrome (MODS) or Sequential Organ Failure Assessment (SOFA)? *J Neurol Neurophysiol*. 2016;7:408.
80. Garg A and Malhotra R (2016) Sweating Disorder after Traumatic Brain Injury. *J Anesth Clin Res*. 2016;7:695.
81. Travers S, et al. The Problem of Anemia Associated with Traumatic Brain Injury. *J Trauma Treat*. 2016;5:347.

82. Doan N, et al. Traumatic Brain Injury. *Int J Phys Med Rehabil.* 2016;4:e120.
83. Patel M, et al. (2016) Management of Pediatric Traumatic Brain Injury: A Mini-Review. *Int J Phys Med Rehabil.* 2016;4:378
84. Ciuffreda KJ. Vision Problems in Mild Traumatic Brain Injury. *J Neurol Neurophysiol* 2016;7:401.
85. Lotfy A and Abdelrahman A. Sutureless 23G Vitreorrhesis in Pediatric Cataract Surgery. *J Clin Exp Ophthalmol.* 2017;7:616.
86. Khreesha L, et al. Aeroallergen Extracts in Skin Prick Test: Can we Minimize the Test Battery in Pediatric and Adult Patients in Jordan. *J Clin Cell Immunol* 2016;7:466.
87. Bottex MMG, et al. Concussion in Pediatric Sports: Is the Glory of the Game Worth it?. *J Community Med Health Educ.* 2016;6:491.
88. Khan J, et al. Mineral Trioxide Aggregate Use in Pediatric Dentistry: A Literature Review. *J Oral Hyg Health.* 2016;4:209.
89. Marafioti V, et al. Amiodarone-Induced Life-Threatening Ventricular Arrhythmias in a Patient with Cerebrogenic QT Interval Prolongation. Clinical Implications. *Int J Cardiovasc Res.* 2014;3:1.
90. Sitwala P, et al. Arrhythmogenic Right Ventricular Cardiomyopathy: A Case Presentation with a Review. *J Cardiovasc Res.* 2015;4:6.
91. <https://medlineplus.gov/neurologicdiseases.html>
92. Ikemoto K, et al. Noradrenaline-Immunoreactive Neuronal Structures in the Cat Dorsal Vagal Complex: Interaction with Pargyline, Parachlorophenylalanine or Colchicine Pretreatment. *J Neurol Neurophysiol.* 2015;6:334.
93. Seeman MV. Exercise and Antipsychotic Drugs. *J Pat Care.* 2016;2:114.
94. Marafioti V, et al. Amiodarone-Induced Life-Threatening Ventricular Arrhythmias in a Patient with Cerebrogenic QT Interval Prolongation. Clinical Implications. *Int J Cardiovasc Res.* 2014;3:1
95. <http://www.news-medical.net/health/Dopamine-Functions.aspx>
96. <http://www.webmd.com/brain/picture-of-the-brain#1>
97. <https://www.disabled-world.com/health/neurology/>