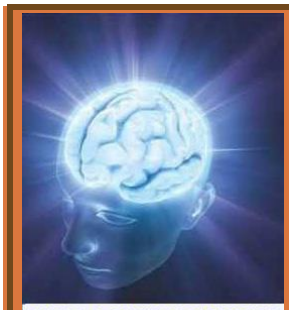

MINDS NEWSLETTER

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MINDS

Wellbeing begins in Our MINDS

Monthly Newsletter on Psychiatry for Doctors & Medical Students

Volume 9 *Issue 9* *September, 2017*

From The Desk of Editor..... Remember"Non-Pharmacological management" Me

About 4.1 million (2-3%) live with dementia in India (50-60% is Alzheimer's disease). Currently there is no cure for Alzheimer's dementia. Patients are usually brought to hospital in moderate or severe stages. Pharmacological management is mainly aimed at decreasing the progression, treating the behavioral problems, co morbidities and to some extent improving cognitive and global performance especially in early stages with limited success in late stages. However these medications come with their own cost and side effects which further increases the burden on individual and caregivers. Non pharmacological management still remains the mainstay of management for improving the quality of life, however this is the scarcely adapted in many centers and by caregivers. Unlike western countries, this fact is very true with respect to India where there is decreased awareness and knowledge regarding the illness and availability of different types of treatment, increased number of patients in hospital OPDs/IPs with less amount of time spent on each patients, economic status of the caregivers, limited short and long term facilities, and support programmes for patients and caregivers, governmental policies/initiative and stigma. However, there are steps being taken currently in developing countries to improve the quality of life of patients with dementia. Caregiver's support is as important as patient's, otherwise likely chances of them landing up in frustration, exhaustion and depression which will indirectly affect the treatment and will lead to abuse, neglect of the patients.

Let us Remember "Non pharmacological management-to spend little more time" while treating dementia with medicines which will improve the quality of life of patients and caregivers

DR. SANJAY T NAIK

REFRAME – Let Awareness Reframe Assumptions: Myths and Facts about Dementia

- ☒ Dementia is a normal part of ageing
- ☑ It is a disease and not a normal part of ageing
- ☒ There is nothing which you can do if you have it
- ☑ There is no cure however there is treatment to decrease the progression
- ☒ If someone in family has dementia, you will have it too
- ☑ There is a chance but not absolute
- ☒ Dementia is just a memory loss
- ☑ It involves many other aspects like emotion, behavior, motor problems among others
- ☒ Alzheimer's disease is same as dementia
- ☑ AD is the most common type of dementia, but there are other types of dementia with different manifestations.

Dr. Sanjay T Naik, Senior Resident, Dept. of Psychiatry, MVJMC & RH, Hoskote, Bengaluru

Prof. Alois Alzheimer is described as the chain cigar-smoking psychiatrist-clinical researcher who was fond of "spending evenings and nights at the microscope."

Request took me to go up and down the memory lane and I recognized that beginning was made in the year of 1977-78 when optimism and enthusiasm was stronger and zest to acquire the knowledge and skill to manage such a disorder was powerful.

Appreciation about my first lecture on Dementias from the Dias shared by then the first Geriatrician, in one of the medical colleges in Chennai, by my Professor Dr. A. Venkoba Rao took me further.

Time and tide move further, now when I sat, with a detached attitude, to collect and consolidate the ideas, two things emerged strongly. First, very little advances in understanding about this disorder are made. Management of cases of Dementia has made me humble, actively-passive observing of on-going natures and devastating insult of the brain leading to psycho-socio-physical disease".

The erasing of emotions to total apathy, looking at everything in life as a new event, unable to communicate and share their feelings and ideas as " the fountain of life is slowly dying away", entering into a second childhood where adamancy, dependency on others, not aware of their identity perplexing their kith and kin who are at a loss to find a solution, seeks a clinician who can talk for hours on the disease but can offer very few measures to arrest the disease process is the common scenario – a challenge to modern Hi-Fi world. This scenario if introspected by one and all on this day enables all clinicians to shun their arrogance of being self proclaimed "God" and bow in front of powerful life full of enigma. Humbleness, sympathetic and empathetic feeling makes him to tell "I serve and Nature does what is destined for that person". This is possible only when this issue is viewed from the dimension of Spirituality (important for the caretaker and totally absent in the sufferer of Dementia).

The ideal approach to this disease would be Physico-Psycho-Socio-Spiritual.

This is another point to prove that "Health is Wealth" and Prevention is better than Cure.

What is in store for us in the Pandora's Box, only time will tell

Dr. V.A.P. Ghorpade, Prof & HOD of Psychiatry, AIMS, Nagamangala Tq, Mandya Dt, Karnataka

FRONTOTEMPORAL DEMENTIA

Frontotemporal dementia is a progressive neurodegenerative disorder and is the second most common cause of early onset dementia (before age 65), second only to Alzheimer's dementia. The estimated prevalence of FTD is highest in the 45 to 64 year age group and ranges from 15 to 22 per 100,000. It classically affects adults in their fifties to sixties, although cases have been reported in patients from 30 years to more than 90 years of age. FTD affects both genders in roughly equally. The term FTD is typically used to refer to one of the several clinical subtypes including behavioral variant of FTD, Semantic variant primary progressive aphasia (PPA), non fluent agrammatic variant and FTD associated with motor neuron disease. FTD related disorders include two tau-associated neuro-degenerative diseases, corticobasal syndrome and progressive supra nuclear palsy which can present with frontal lobe dysfunction. Behavioral variant of FTD is gradual in onset and progresses with change in behavior including disinhibition, loss of empathy, apathy, hyperorality and perseverative or compulsive behavior. Patient with FTD demonstrate deficits in executive function tasks with relative sparing in memory and visuospatial domains. They may also exhibit psychotic features including visual or auditory hallucinations bizarre or somatic delusions.

The hallmark symptom of semantic variant of primary progressive aphasia is the loss of word meaning. Atrophy of the dominant anterior temporal lobe is the characteristic finding in semantic variant of primary progressive aphasia. Approximately 20 percent of patients with progressive supranuclear palsy first present with behavioral changes or progressive language deficits. Patients with CBD may first present with behavioral changes, executive function deficits or language deficits.

FTD is found in approximately 30 percent of patients diagnosed with amyotrophic lateral sclerosis.

40 percent of FTD are associated with autosomal dominant pattern of inheritance, remaining cases are considered sporadic. Genetic mutation may be found in approximately 6 percent of patients with no family history of FTD. Abnormal accumulation of tau or TDP-43 is found in pathologically confirmed cases of FTD.

At present there are no validated bio markers that can reliably distinguish patients with FTD from controls or other types of dementia.

Although currently no medications will prevent slow decline or cure FTD, many of the symptoms can be treated. Both pharmacological and behavioral interventions are available for symptomatic benefit of specific cognitive and behavioral features.

SSRI'S are often useful treating a wide range of behavioral symptoms in FTD including apathy, depression, agitation, anxiety and obsessive compulsive behaviors.

Choline esterase inhibitors may help temporarily stabilize cognitive symptoms including aphasia symptoms, apathy and executive functioning.

Dr. Veda N.Shetageri, Associate Professor, Dept. of Psychiatry, MVJMC & RH, Hoskote, Bengaluru

Pathological basis of Dementia due to Alzheimer Disease

Alzheimer Disease (AD) is the most common cause of dementia accounting for 60- 80% of dementia cases in elderly. It manifests as an insidious impairment of higher intellectual functions, with alterations in mood & behavior to progressive memory loss, aphasia and finally leading to disabled, mute, and immobile.

Acetylcholine seems to be particularly important for memory; loss of cholinergic neurons in Alzheimer's disease underlies the memory impairment. The key abnormality in AD is the deposition of Aβ peptides, which are derived through amyloidogenic processing of Amyloid Precursor Protein (APP) which is a cell surface protein. Aβ aggregate into small oligomere which are toxic and cause neuronal dysfunction. The Aβ eventually form large aggregates and fibrils.

Grossly, there is diffuse cortical atrophy with compensatory ventricular enlargement. Microscopically, two characteristic findings include the neuritic plaques and neurofibrillary tangles. Plaques are extracellular spherical structures with a core of Aβ amyloid surrounded by a halo and a ring of dystrophic neurites measuring around 20 to 200 µm in diameter. Neurofibrillary tangles are insoluble twisted helical filaments found inside the cell body and dendrites of neuron and composed of abnormally hyperphosphorylated tau protein which forms part of a microtubule. In AD, however, the tau protein is abnormal and the microtubule structures collapse. Plaques are assessed semi - quantitatively in each cortical area, while tangles are assessed based on how widespread they are in the brain.

Other features include granulovacuolar degeneration and hirano bodies. Granulovacuolar degeneration is a small intraneuronal cytoplasmic vacuole containing an argyrophilic granule which is seen in abundance at hippocampus and olfactory bulb area. Hirano bodies are described as elongated, glassy, eosinophilic bodies containing beaded actin filaments, found within the hippocampal region. Cerebral amyloid angiopathy changes are usually seen in AD.

All the above pathologic changes start in the entorhinal cortex, spreading to the hippocampus & finally extending into the neocortex.

Tau immunostain and silver stains (Bielschowsky and Gallyas) identify neuritic plaques & tangles, there by aid in the diagnosis of AD.

Dr. Shruthi N.Shetageri, Assistant Professor, Dept. of Pathology, MVJMC & RH, Hoskote, Bengaluru

UG n PG

AN EXCLUSIVE SECTION FOR UNDERGRADUATES AND POSTGRADUATES

UG n PG

MINDS QUIZ

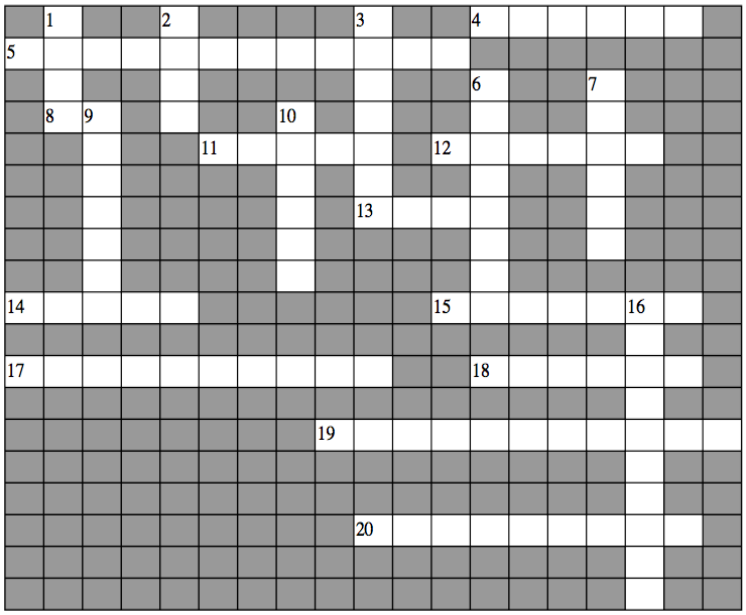
1. Dementia more commonly associated with visual hallucination
   A. Alzheimer's B. Lewy Body C. Vascular D. Huntigton

2. Dementia with rapid progression of disease
   A. Frontotemporal B. Traumatic brain Injury C. Prion D. Vascular

3. Chromosomal linkage studies of Alzheimer's dementia
   A. Chr.1 B. Chr. 21 C. Both D. None

4. Pick's disease has preponderance to which part of brain?
   A. Frontal B. Temporal C. Frontotemporal D. Frontotemperoparietal

5. Memantine is a
   A. AChE inhibitor B. BuChE inhibitor C. Both D. NMDA receptor antagonist



ACROSS

4. Marked impairment in reciprocal social & interpersonal interactions
5. Stage 4 parasomnia occurring during stage 3 & 4 of NREM sleep. Also known as "sleepwalking"
11. Pharmacologist who discovered ACh
12. Russian psychologist known for his work in classic conditioning
13. Pervasive and sustained feeling that if extreme, can colour one's view on life
14. Founder of psychoanalysis
15. Excessive teeth grinding or jaw clenching
17. Disorder characterised by excessive daytime sleepiness
18. Genetic epistemology was theorized by Jean ____
19. Sexual attraction or sexual act involving corpses
20. An idea or thought that continually preoccupies or intrudes on a person's mind

DOWN

1. Hindu spiritual and ascetic discipline practiced for health and relaxation
2. Questionnaire for detection of problem drinkers
3. Treatment of choice for mania
6. Delusions of inflated worth, power, knowledge, identity, or special relationship to a deity or famous person are known as delusions of _____
7. Lack of additional, unprompted content in normal speech
9. Withdrawal of this stimulant recreational drug causes "feeling of bugs crawling under skin"
10. A form of sexual desire in which gratification is linked to an abnormal degree to a particular object, item of clothing, part of the body, etc
16. Older and colloquial term used for PTD

Can You CRO SS THE CRO SSW ORD !!!

Dr. Thejus Suresh, Intern, MVJMC & RC, Hoskote, Bengaluru

QR Code for MINDS website

CROSS WORDS

ACROSS

1. Autism
5. Somnambulism
11. Loewi
12. Pavlow
13. Mood
14. Freud
15. Bruxism
17. Narcolepsy
18. Piaget
19. Necrophilia
20. Obsession

DOWN

2. Yoga
3. CAGE
4. Lithium
6. Grandior
7. Alogia
9. Cocaine
10. Fetish
16. Shellshock

Dr. Shweta U Biradar (NIMHANS)

MINDS QUIZ

1. Lewy body
2. Prion
3. Both
4. Frontotempo
5. NMDAR antagonist

ANSWERS

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