University Journal of Medicine and Medical Specialities

ISSN 2455- 2852 2019, Vol. 5(2)

Varied Presentations of Dementia - Case Reports

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Abstract : Dementia is a state of impaired memory with loss of other cognitive abilities or change in personality that is persistent and interferes with previously achieved levels of social or occupational function. Clinically distinction between various types of dementia is important as it can have profound implications for management and prognosis. Here we report three case reports of dementia admitted in our ward with varied presentations.

Keyword : Dementia, Alzheimer's disease, Dementia with Lewy bodies, Frontotemporal dementia

CASE REPORTS:

CASE 1

69 years old female admitted with 6 months history of progressive slowness of movements, assistance for ADL, recurrent falls. Onset is insidious and progressive. Diagnosed as Parkinsonism in private hospital referred. Detailed evaluation further revealed in addition to the above features, history of formed visual hallucinations and memory disturbance. No history of incontinence. No history of any comorbid illness like Diabetes mellitus, Systemic hypertension, pulmonary tuberculosis, vascular events, seizures, head injury and psychiatric illness. General examination is normal and vitals are stable.

CNS examination showed: Memory: Impairment in recent memory.

Language: No language disturbances

Visuospatial: Prominent visuospatial impairment.

Executive function: Judgement and abstract thinking is intact.

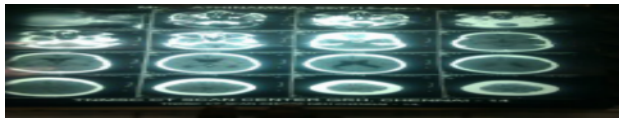
Motor system: Bradykinesia, rigidity, falls, no tremors, no gaze palsies,

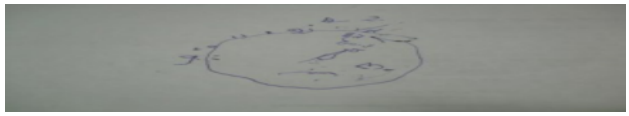
Autonomic: No bladder or bowel incontinence, no postural hypotension Cranial nerves, sensory system and cerebellum appear normal. Insight is absent. MMSE on various days were -15/30, 21/30, 18/30 shows a fluctuating cognitive status with calculation impaired on all the days of MMSE. Orientation, registration, attention and recall shows fluctuations on various days (educational status 8th std, no hearing, impairment, vision 6/6 (cataract surgery done) with intraocular lens). Patient not able to do the clock drawing test. Other systems examination is normal. Investigations like complete blood count, liver function test, lipid profile, investigations to rule out infective causes like HIV, serum electrolytes, serum calcium, Thyroid function test and vitamin B12 and thiamine levels were normal.CT brain showed cortical atrophy with minimal ventricular dilatation. In CT brain there is no evidence of sudural hematoma and space occupying lesion. Patient was treated with anticholinesterase inhibitor donepezil started with 5mg once a day and gradually increased to 10mg once a day. On follow up over 4 months period patient showed improvement in the form of disappearance of visual hallucination but cognition found to be same with fluctuations that present before the initiation of treatment.

CT Brain showing cortical atrophy with minimal ventricular dilatation

Clock drawing test

CASE 2





60 years old male admitted with 6 months history of not taking care of self, repeated dressing and undressing, history of wandering and way finding difficulty, history of inappropriate laughter and cry .Onset is insidious and slowly progressive and the wandering history brings the patient to attention to the relatives. No history of incontinence. Patient is not an alcoholic or smoker or betel nut chewer. No history of any co morbid illness like Diabetes mellitus, Systemic hypertension, pulmonary tuberculosis, vascular events, seizures, head injury and psychiatric illness. General examination is normal and vitals are stable.

CNS examination showed:

Behavioral: apathetic, inappropriate laugh and cry

Memory: Recent and remote memory impaired, perseveration present

Language: Not communicating, non fluent aphasia Visuo spatial: Getting lost.

Executive: Judgement and abstract thinking impaired Motor system: Axial rigidity.

Autonomic: No bladder or bowel incontinence, no postural hypotension. Cranial nerves, sensory system and cerebellum appear normal. Insight is absent. MMSE scores were 17/30(patient is illiterate, vision and hearing not impaired).Patient is not able to do the clock drawing test. Other systems examination is normal. Investigations like complete blood count, liver function test, lipid profile, investigations to rule out infective causes like HIV, serum electrolytes, serum calcium, Thyroid function test and vitamin B12 and thiamine levels were normal.CT brain and MRI showed - Diffuse cortical atrophy.Patient was treated with antipsychotic quetiapine 25mg once a day and donepezil 5mg once a day. Patient behavioural symptoms got improved but cognitive symptoms remain unchanged. Patient is on follow up in our out patient department.

CASE 3

90 years old female admitted with 2 month history of behavioral disturbance in the form of aggressiveness, restlessness, shouting, wandering, purposeless activities which is insidious in onset and progressive over two months.Paranoid symptoms in the form of suspicious of people stealing her belongings.History of Unmindful incontinence.History suggestive of Sun downing present. . No history of incontinence. No history of any co morbid illness like Diabetes mellitus, Systemic hypertension, pulmonary tuberculosis, vascular events, seizures, head injury and psychiatric illness. General examination is normal and vitals are stable. Patient is maintaining ADL. CNS examination showed:

Behavioural: Restlessness, aggressive, purposeless activites present.

Language: word finding difficulty present.

Visuo spatial: Getting lost, difficulty in object perception present.

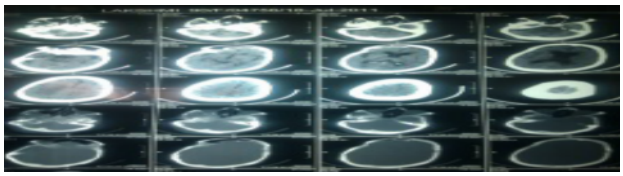
Executive: Judgement and abstract thinking impaired.

Motor system: No gait disturbances, no fall, no weakness.

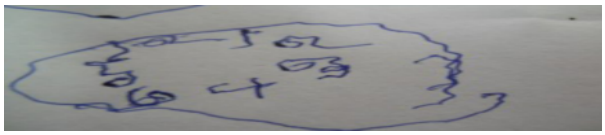
Autonomic: No bladder or bowel incontinence, no postural hypotension.

Cranial nerves, sensory system and cerebellum appear normal

Insight is absent. Judgment and abstract thinking is poor. Her MMSE scores were17/30(educational status-6th std, vision-not impaired(bilateral intraocular lens in situ).Patient had bilateral sensorineural hearing loss. Patient was not able to do the clock drawing test. Other systems examination is normal. Investigations like complete blood count, liver function test, lipid profile, investigations to rule out infective causes like HIV, serum electrolytes, serum calcium, Thyroid function test and vitamin B12 and thiamine levels were normal.



CT Brain showing cortical atrophy and ventricular dilatation



Clock drawing test

CT brain showed cortical atrophy with ventricular dilatation. Patient was treated with antipsychotic quetiapine 12.5mg once a day and donepezil 5mg once a day. Patient behavioural symptoms got improved but cognitive symptoms showed no response. Patient was on follow up in our out patient department for 4 months after that she lost the follow up and care givers reported the patient was dead.

DISCUSSION:

While evaluating dementia a good history and clinical

CASE 1	CASE 2	CASE 3
Parkinson's features with early cognitive decline	Inappropriate laughter and cry	Memory impairment
Visual hallucinations	Impairment of personal conduct	Sundowning
Fluctuating cognitive status	Apathetic	Purposeless activities
Prominent visuospatial impairment	Perseveration	Paranoid symptoms
Probable DLB	Probable FTD	Probable early AD

DISCUSSION:

Clinical features of various dementias are

	Alzheimer's	Vascular	DLB	FTD
Course of the disease	Gradually progressive	Stepwise deterioration	Progressive with fluctuations	Insidious and gradual progression
Cognitive symptoms	Memory impairment with one or more areas of cognitive deficit	Memory impairment with two or more areas of cognitive deficit	Fluctuating cognitive symptoms. Prominent visuospatial/ constructional impairment	Early decline in social interpersonal conduct/ language skills. Memory loss late.
Other associated symptoms		Focal neurological deficit and findings in imaging	Recurrent visual hallucinations F/oParkinsonism Recurrent falls Neuroleptics sensitivity	Impairment in regulation of personal conduct Loss of insight Emotional blunting

examination gives clues about treatable causes of dementia like Subdural hematoma,Tumors of the brain. Normal pressure hydrocephalus, Hypothyroidism,Vit B12 deficiency,Alcoholism and drugs,HIV, HSV.

DIFFERNTIAL DIAGNOSIS:

Delerium:

Onset is acute and fluctuating course. Attention is impaired. Thinking and speech is disorganized and there is altered level of consciousness. Delusions and hallucinations are common especially visual hallucinations. Usually there is an organic etiology like infections

Depression:

Onset is acute or insidious. Conscious level, memory orientation are within normal .Concentration is decreased. Delusions and hallucinations are uncommon. Patient answers in monosyllable. There will not be any organic etiology.

Acute psychosis:

Onset is acute. Patient attention is variable. Memory and orientation is usually not impaired. Delusions are common. Hallucinations especially auditory and complex hallucinations are common. There will not be any organic etiology

TREATMENT:

Identifying the treatable cause and and appropriate treatment is main focus of evaluating dementia. Cognitive symptoms are treated with the use of acetylcholinesterase inhibitors like donepezil, rivastigmine, galantamine and NMDA antagonist like memantine. Preventive strategies include vascular risk factor modification, anti inflammatory medications, antioxidants, lifestyle interventions and cognitive stimulation. Behavioral disturbances can be managed by both nonpharmacological and pharmacological interventions. Safety issues and care giver support and

training are most important part treatment plan

CONCLUSION:

• Prevalence of dementia is increasing as the population of very old is increasing. A good history is still the essential tool in identifying and differentiating cognitive impairment and sub types of dementia. Differentiating delirium, acute psychosis and underlying dementia is often difficult as they occur together. Screening for cognitive decline must be routinely done for older patients as therapeutic interventions are available early dementia.

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