ORIGINAL ARTICLE

An Appraisal of Clinical Diagnosis and Management of Dementia Patients in A Public Hospital

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ABSTRACT

Background: As of 2015, 46.8 million elderly people were living with dementia, with 4.6 million new cases diagnosed every year worldwide. Comprehensive evidence and practice-based management principles with practical strategies and interventions are necessary for adequate care to be rendered.

Objective: The purpose of this study was to examine clinical information, management, intervention principles and other relevant contents in the case note of dementia patients.

Methodology: A retrospective study in which 42 case notes of dementia patients seen in Federal Neuro-Psychiatric Hospital, Maiduguri in 2017 were retrieved based on the register kept by health records staff. The number of dementia cases from the register showed that one hundred and fifteen (115) cases were seen in 2017. Systematic sampling was used to select client case files to be studied from a list of 115 produced using medical health record register for dementia diagnosis in the year 2017. Information sorted out included socio-demographic data, clinical information, diagnosis, management, intervention principles and other relevant contents related mostly to first visit.

Results: Majority (N=27, 64.3%) were males, maximum age was 90yrs and minimum 56yrs. More than half (N=25, 59.5%) were married, a third widowed (N=15, 35.7%) and 13(31%) were unemployed. Main complaints were forgetfulness (N=36, 85.7%), irrational talks (N=29, 69%) and poor sleep (N=9, 21.4%). Information content in assessment was not comprehensive in 23 (54.8%) of case notes while 19(45.2%) were fair. Associated factors were not documented in many case notes, like smoking (N=40, 95.2%), alcohol use (N=41, 97.6%) and past psychiatric history (N=38, 90.5%). Management guidelines were sparsely used (N=24, 57.1%) or not used (N=18, 42.9%).

Conclusion: Care of dementia patients need to follow adequate assessment and management based on known guidelines for it to be beneficial. A national guideline with strategies for prevention, screening and intervention will encourage early involvement in treatment and delay deterioration.

Key words: *Cognition, Assessment, Alzheimer, Guidelines*

INTRODUCTION

Dementia is a clinical syndrome characterized by progressive acquired global impairments of cognitive skills and ability to function independently. Many patients show varying levels of behaviour disturbance at some point. The syndrome is caused by many diseases, with Alzheimer's disease (AD), vascular dementia and dementia with Lewy body together accounting for around 90% of cases. Incidence and prevalence of dementia are strongly age dependent.

World Health Organisation (WHO) projections suggest that by 2025, about three-quarters of the estimated 1.2 billion people aged 60 years and older will reside in developing countries.[1] Thus, by 2040, if growth in the older population continues, and there are no changes in mortality or burden reduction by preventive measures, 71% of 81.1 million dementia cases will be in the developing world.[2] About 4.6 million new cases of dementia are added every year, with the highest growth projections in China and its south Asian neighbours.[2]

The management of a patient with AD is a complex and evolving task because the natural history of AD is characterised by progressive decline; patients' cognitive, physical, and social functions gradually deteriorate.[3] One of the key aspects of optimal management of dementia is realistic expectations for therapeutic outcomes, including treatment effects and potential outcomes; it is, therefore, imperative that the physician is aware of these issues and discusses them with both the patient and caregiver.[4] To be effective, interventions for patients with dementia should ideally improve functional status to a level that is detectable by caregivers or health care providers.[5]

In clinical practice and research, cognition is considered the key change in people with dementia.[6] Diagnostic criteria for dementia depend on the presence of cognitive impairment.[7] The other aspects of the clinical picture in dementia (behaviour, impairment in function, carer stress) ultimately derive from impaired cognition.

Behavioural changes seen in dementia, often referred to as Behavioural and Psychological Symptoms in Dementia (BPSD) are of special importance in influencing prescriptions (often hazardous), institutionalization of patients and carer stress.[6] In patients with disruptive and hard-to-treat behavioural problems, referral to a behavioural specialist such as a geriatric psychiatrist should be considered.[3]

A recent consensus statement recommended that all treatment approaches should start with rigorous attempts to identify any reversible causes of these behaviours and alleviate these factors [8] by modifying the physical and interpersonal environments.[9] Common triggers of agitation and aggression include pain, faecal impaction, medical illness, boredom, loneliness, depression, social and environmental stressors.[3]

The choice of psychopharmacologic agent is determined by specific target symptoms. Behaviours like wandering and pacing are not amenable to drug therapy.[3] In accordance with the principles of geriatric psychiatry *"start low and go slow, but go,"* the psychotropic agent should be initiated in a low dosage and then increased slowly until an adequate response occurs or side effects emerge.[3] After behavioural disturbances have been controlled for 4 to 6 months, the dosage of the

psychotropic agent can be reduced periodically to determine whether continued pharmacotherapy is required.[3]

There are several areas of overlap between these therapies and each approach is rarely used in isolation making it useful for clinicians to be familiar with several of these approaches to enable a combination of treatments to be tailored to individual requirements.[10,11]

The purpose of this study was to examine clinical information, management, intervention principles and other relevant contents in the case note of dementia patients.

Study hopes to draw attention of caregivers that holistic approach to assessment of dementia patients can be tasking and time consuming, requiring patience and knowledge before proper intervention can be instituted.

METHODOLOGY

A retrospective study in which 42 case notes of dementia patients seen in Federal Neuro-Psychiatric Hospital, Maiduguri in 2017 were retrieved based on the register kept by health records staff. The number of dementia cases from the register showed that one hundred and fifteen (115) cases were seen in 2017. Systematic sampling was used to select client case files to be studied from a list of 115 produced using medical health record register for dementia diagnosis in the year 2017.

All the case notes were not used because pilot study showed that some case notes were bulky and sorting of information based on research outline time consuming. Thus in order to maintain standard and uniformity, the case file of every 3rd client on the list was selected. This produced approximately 38 files and was rounded to 42 which were eventually used. Information assessed included socio-demographic data, clinical information, diagnosis, management, intervention principles and other relevant contents related mostly to patients' first visit.

Folders were checked for comprehensibility of assessment based on documentation of: biodata, presenting complains and duration, probe of cognitive problem and aetiology, associated complications (socio-economic etc.), life habits (alcohol use, tobacco use etc.), Activities of Daily Living (ADL)/Instrumental Activities of Daily Living (IADL) issues, behavioural problems, comorbidities, present drugs of use, medical and surgical history, past treatments, past psychiatric history and family history. Also use of assessment tools like Mini Mental State Examination (MMSE), typing of Behavioural and Psychological Symptoms in Dementia (BPSD) if present, use of diagnostic criteria (International Classification of Diseases Version-10/Diagnostic and Statistical Manual Version-4), investigations, physical examination findings, nature of intervention and extent of utilization of guidelines in management were assessed. Assessment is considered comprehensive if it contains information on not less than 75% of the items outlined above, fair (less than 75%) and not comprehensive (less than 50%). Permission was granted by the ethics and research committee of Federal Neuro-Psychiatric Hospital, Maiduguri.

RESULTS

Majority (64.3%) were males while max age was 90years and minimum 56years (Table 1). Smoking and alcohol use history was not documented in 40 (95.2%) and 41(97.6%) case notes respectively. There was no evidence of probe for possible medical comorbidities in 10 (23.8%) of the case notes.

Table 1. Socio-Demographic Data (N=42)

Characteristic	N (%)
Age group(years)	
≤ 65	11 (26.19)
66 -75	20 (47.62)
76 - 85	5 (11.90)
≥ 86	6 (14.29)
Gender	
Male	27 (64.3)
Female	15 (35.7)
Marital status	
Married	25 (59.5)
Widowed	15 (35.7)
Divorced	2 (4.8)
Educational status	
Quranic education	34 (81.0)
Secondary education	3 (7.1)
Tertiary education	3 (7.1)
No schooling	2 (4.8)
Occupational status	
Unemployed	13 (31.0)
Farming	11 (26.2)
Trading	10 (23.8)
Civil servant	4 (9.5)
Retired civil servant	2 (4.8)
Tailoring	1 (2.4)
Bus driver	1 (2.4)

Table 2. Clinical information

Parameters	(N%)
Main complaints	
Forgetfulness	36(85.7)
Irrational talks	29(69.0)
Poor sleep	9(21.4)
Odd behaviours	8(19.0)
Poor self-care	5(11.9)
Aimless wandering	2(4.8)
Hearing voices	1(2.4)
Sadness	1(2.4)
Fitting	1(2.4)
Duration of complaints	
Less than 12 months	23(54.8)
12 – 23 months	8(19.0)
24 – 35 months	2(4.8)
36 – 47 months	5(11.9)
48 – 59 months	-
60 months and above	3(7.1)
Not documented	1(2.4)
Nature of assessment	
Not comprehensive	23(54.8)
Fairly comprehensive	19(45.2)
Comprehensive	Nil
Documentation of past psychiatric history	
Yes	38(90.5)
No	4(9.5)
Use of assessment tools	
Sparse	3(7.1)
Not used	39(92.9)
Presence of medical comorbidity	
Present for 13 out of 42	13(31.0)
Presentation blood pressure	
Diastolic 60 – 90 and systolic 90 - 150mmhg	28(66.7)
Diastolic above 90 and systolic above 150mmhg	14(33.3)

DISCUSSION

The authors examination of clinical information, management, intervention principles and other relevant contents in the case note of dementia patients showed there were differences in approach to clinical diagnosis and management of dementia patients.

Table 3. Management and intervention principles

Principles	(N%)
Use of diagnostic criteria	
Based on ICD	3(7.1)
Criteria not clear	39(92.9)
Typing of BPSD when present	
All 32 cases not typed	32(100)
Use of investigations	
Moderate	11(26.2)
Not used	31(73.8)
Use of biological treatments	
Moderate in all cases	42(100)
Use of psychosocial treatments	
Sparse	24(57.1)
Not used	18(42.9)
Use of known management guidelines	
Sparse	24(57.1)
Not used	18(42.9)
Main drugs/supplements used	
Antipsychotics	26(61.9)
Donepezil	27(64.3)
Ginkgo biloba	21(50.0)
Vitamin E	20(47.6)
Antidepressants	6(14.3)
Encephabol	4(9.5)

All relevant clinical documentations in the case notes were made by medical doctors and were found to be mostly sub-optimal.

A study on dementia assessment and diagnostic practices of healthcare workers in rural South-Western Uganda using interviews also reported differences in knowledge and approach to care.[12] The Ugandan study which included other health workers reported that healthcare workers without specific mental health training assessed and diagnosed dementia based on history and physical examination alone. On the other hand, healthcare workers with some specialized training in mental health were more likely to use neuropsychological tests, blood tests, urine tests, and brain imaging in the diagnosis of dementia.[12]

Inadequate detection and poor management has been reported globally, thus denying people with dementia and their families optimal pharmacologic and psychosocial intervention.[2,13,14,15] In China, for example, 49% of patients with dementia were classified as normal ageing, and only 21% had adequate access to diagnostic assessment, compared with 20% and more than 70%, respectively, in Europe.[16,17]

The 2017 Nigeria population estimate put the proportion of 55-64 year age group at 3.97%, while 65 years and above was 3.13%.[18] These projections might be confounded by temporal changes due to shorter survival after dementia, lack of education and awareness, inadequate diagnostic assessment, and variability in costs of care of the elderly with dementia, all of which could lead to under-accounting of the dementia burden.[14,15,16,19]

Rating scales are often advocated for use in influential guidelines.[20] Many assessment scales have been devised in the field of dementia in order to increase the precision of a decision by reducing subjectivity and increasing objectivity; for example, using a cognitive screening test score to screen for underlying dementia, to distinguish impairment due to dementia from normal age-related cognitive change or to monitor the effects of treatment of dementia in a clinic or controlled trial.[6]

Some guidelines recommend initiating Cholinesterase inhibitors (ChEI) therapy in patients with mild AD and using combination therapy with a ChEI and memantine for patients who progress from mild to moderate AD.[3] Alternatively, global guidelines recommend that patients who continue on the drug should be reviewed every 6 months by Mini Mental State Examination (MMSE) score, global, functional, and behavioural assessment.[20]

Treatment should be continued only while the patient's MMSE score remains 10 points with global, functional, and behavioural condition indicating that the drug is having a worthwhile effect.[3] In patients with moderate to severe AD (MMSE score 12), treatment with memantine can be considered alone or in combination with a ChEI.[20]

The commonality of many guidelines is the emphasis placed on detailed/comprehensive assessment backed by use of neuropsychiatric tools and investigations as prelude to management/intervention. This increases the objectivity of assessment and relates it properly to level/nature of care rendered. Emphasis has shifted to person centred care with balancing of intervention to nature/severity of problems. Sole reliance on clinical judgement may not do it all and what of monitoring/continued care.

Several factors may have affected adequate assessment of this group of patients such as time constraint, patient factors like severity of symptoms, educational level, cultural background etc. Many neuropsychological tools such as those assessing cognition, functionality, BPSD, carers' perspective and quality of life are freely available. Studies show that many of them have adequate psychometric properties with translated/adapted versions such as Mini Mental State Examination (MMSE) in order to suite geographic location.

Known international groups and nations have been rolling out and updating guidelines for the care of this group of patients. Some work has been done by Nigerian mental health centres/professionals in collaboration with international partners on research in the field of dementia. Care being rendered to these patients has to be objective, realistic and measurable. Workload and time constraint may be adding to problems that make us somehow sacrifice the needful.

Study is limited by small sample size and restriction to one hospital. Generally, it may be difficult making direct comparisons to other works due to differences in methodology and setting.

CONCLUSION

Care of dementia patients need to follow adequate assessment and management based on known guidelines for it to be beneficial. A national guideline with strategies for prevention, screening and intervention, will encourage early involvement in treatment and delay deterioration. In order to maintain standards, there will be need for staff education, skilled expertise and standardized care protocols so that interventions meet the needs of people with dementia.

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