

## Speech and Language Difficulties in a Patient with Schizophrenia-like Disorder: A Case Report

**Dr. Aghukwa N.C. M.B.B; CH (Calabar), FMCPSYCH (Nig)**  
**Dr. Aghukwa Nkereuwem Chikaodiri**  
**M.B.B; CH (Calabar), FMCPSYCH (Nig)**

Department of Psychiatry, Aminu Kano Teaching Hospital, P.M.B 3452, Kano.

### ABSTRACT

Neurocognitive complications, such as speech and language dysfunctions are common comorbidities in psychiatric patients with underlying medical conditions, such as stroke. Ascertaining a diagnosis is not usually easy, especially in the hands of the primary physicians who first attend to such patients. In addition, making diagnosis purely on previous psychiatric presentations, without thorough neurological and neurocognitive evaluation, is a mistake psychiatrists should avoid. Cultural belief systems in Nigeria play important role in the choice of care people with psychiatric problems receive, and the dearth in the country's mental health personals is a be-deviling handicap to providers of mental health services in the country. The author presents the case of a 52 year old man with schizophrenia-like psychosis that was complicated by speech and language problems following a cerebrovascular accident.

In conclusion, doctors especially psychiatrists should be alert to co morbid physical illnesses in patients with psychiatric presentations.

**KEY WORDS:** Schizophrenia-like psychosis, dysphasia, rehabilitation.

### INTRODUCTION

Psychiatric and medical illnesses are often related in complex ways; occurring independently at the same time, or one causing the other. Psychiatrists for long are seen as alienists by other doctors who assumed they dealt with strange, alien phenomena that should be managed in isolated large institutions than in general hospitals<sup>1</sup>. A study done by the mental health movement in North America and Western Europe showed how common psychiatric illnesses were, and how these considerably co-exist with physical illnesses<sup>2</sup>.

This earlier study<sup>2</sup> showed that 20% of all Americans had mental illness at any one time, and that 32% at some point during their lifetimes. Depression and anxiety were common, and somatisation disorder, which is a psychological problem, presents commonly with physical symptoms. In Nigeria, about 10-18% of the population suffer from disabling but milder mental or psychological disorders, and with improved health services in the country, this figure is bound to increase

due to reduced mortality among people with chronic neuropsychological deficits<sup>3</sup>.

Clinicians and psychiatrists in general hospital settings are bound to encounter physical illnesses complicated by psychiatric manifestations or psychiatric syndromes with physical correlates, but as was stated in an earlier study, apart from their exposure to mental health principles as medical students, the majority of practicing doctors in Nigeria have no further training in mental health<sup>4</sup>.

Psychopathologies very often are found complicating clinical presentations in patients with neurological problems, as very commonly seen in patients with apoplexy (stroke).

Speech and language problems can occur after stroke, and these pose frustrating problems to both patients and their treaters when such arise<sup>5</sup>.

Language, which represents the formulation, transmission, and comprehension of thoughts by verbal and non verbal symbols; and speech, which refers to the actual verbalization of thoughts<sup>6</sup>, is affected in major psychiatric syndromes like schizophrenia, mania, and various neuro-cognitive disorders with or without neurological dysfunctions.

This is a case of "Mr. F.H" who has a syndrome of schizophrenia disorder that was complicated by speech and language deficits, managed at the psychiatric in-patient unit of Aminu Kano Teaching Hospital, Nigeria. Mr. F.H is a 52-year-old, unemployed, right handed secondary school certificate holder from the mid-western part of Nigeria, presently divorced and a Christian by religion. Mr. F.H presented to the general out-patients unit of the hospital with a history of murmuring incomprehensible words, and inability to talk well, which the relations noticed 2-weeks prior to presentation. The attending physician made a guesstimate impression of bipolar affective disorder, depressive type, and referred the patient for psychiatric consultation. Three-months prior to presentation at the psychiatric outpatient's unit, Mr. FH, as claimed by the accompanying relations, had been drinking heavily,

neglected his personal hygiene, and wandered the streets aimlessly, he counted trees in the streets, appeared to obey commands from unseen people, and was writing incomprehensible letters to unknown people he claimed were overseas. Muttering of incomprehensible words and inability to talk well, came to the notice of his relations whom he came visiting, hence he was taken to a private clinic, from whence he was "directed" to the teaching hospital for further consultation. The first episode of expression of unusual behaviours by the patient was about 4 yrs prior to the present manifestation; he suddenly stripped himself naked while attending a church function. He was taken for spiritual deliverance by the relations who felt FH was under the spell of demonic attack, settled after a few days.

However, the relations claimed that one year after the earlier episode; he trekked long distances on bare foot, neglected his personal hygiene, drank and smoked heavily, and spent recklessly whenever he had some money he obtained forcefully from the relations. Prior to divorcing his wife, the family members noticed he became too suspicious of her, accusing her of sleeping around with men and searched her hand bags and clothing, even under wears for proof of his suspicion (?Othello's syndrome). Mr. FH's relations believed his wife, divorced after several quarrels over unconfirmed accusations of infidelity, must have a hand in their brother's unnatural behaviours.

A family history of mental illness was not ascertained; a clear account of Mr. FH's pregnancy, and labour/delivery was not given by the accompanying relations, though they felt his infancy and early childhood were uneventful. He started his primary education at the age of 6 years, spanning over 6 years, and was uneventful. Mr. FH started his secondary education at 12 years; lost his father at the age of 16 while in form IV, and was left in the care of his mother. He completed his secondary education the following year with good grades in the West African School Certificate Examinations (WAEC). Being the first among seven children, and having lost his father a year before, he joined his mother in his late father's business. The business was well managed by Mr. FH but collapsed 7 years prior to the present episode of illness following a religious crisis that caused destruction of his merchandise and other properties. Mr. FH, after relocating to another city, had a 3 years unsuccessful pastoring career. He sold his late father's house in order to raise money for a fresh rubber processing business, but was duped by con men. The patient married at 22 years of age, his marital life was initially smooth until about 4 years ago when he divorced his wife following series of marital conflicts. Bore 4 children, the eldest being a girl and a university graduate, the rest are boys and in tertiary institutions. As at the time of this admission, the children stay with their mother, and Mr.

FH had seen neither them nor their mother for the past 4 years. He was premorbidly, cheerful and easy going, sociable, religious and caring; drank occasionally and smoked lightly, but stopped at the start of his pastoral career.

Mr. FH, a stocky middle aged man, was kempt, fully conscious, and walked with normal gait into the psychiatry consulting room. Though his affect looked blunted, his general conduct was normal and appropriate. He obeyed gross commands (like when signaled to come), but speech was incoherent, hesitant with paraphasias (descriptive phrases) and neologisms despite normal movements of the tongue and lips. He was only able to use a few words with repetition of phrases, speech articulation was difficult to assess although he appeared to pronounce words correctly with repeated efforts. Mr. FH was neither able to understand what he was asked to read nor able to follow an instruction when asked to read to self, a written information on a paper. He scribbled A, B, B --- on a non straight line when asked to write his name which starts with F, and he was unable to understand simple symbols when asked to identify the correct answer with  $1+1=4$ ,  $1+1=2$ ,  $1+1=8$  (acalculia). A significant finding on physical examination, was a remarkably raised blood pressure, at 200/140mmHg, and further neurological evaluation (by a neurologist) confirmed the earlier mentioned speech and language problems. Apart from the CT-scan that highlighted a left temporal chronic infarct with secondary atrophy, and an ECG that highlighted a supraventricular arrhythmia with T-abnormality in the antero-lateral leads, other investigations were normal.

Mr. FH was diagnosed with schizophrenia disorder with aphasia, and grade III hypertensive disorder. The objective evidence of a chronic affectation of the temporal lobe could explain for the odd behaviours and delusional manifestations in the patient, positing a likely neurological origin of the illness. In addition, the noted signs and symptoms that occurred in the patient were not pathognomonic of schizophrenia, been features that could exist in other neurological disorders, especially when the left temporal lobe is involved. Although the age of onset of the index patient's illness was at 48 years, late onset schizophrenia which starts after 45 years is commoner in females than in males who present earlier with the illness. However, in the absence of earlier neurological and radiological proofs; a functional schizophrenia disorder is a preferred diagnosis to an organic related schizophrenia-like disorder in this case. This impression is based on the premise that Mr. FH's psychotic manifestations occurred 4 yrs before the present illness episode, and very likely not having remitted as shown in his persistent occupational, marital, and social dysfunctions. For this reason, Mr. FH had a preexisting schizophrenic disorder, and

subsequently developed a cerebrovascular illness which complicated the earlier illness by neurological speech and language deficits.

He was placed on antihypertensives (Nifedipine, Bendroflutazide and Lisinopril) by the liaising medical team, and sodium valproate 200mg, Olanzapine 5mg, and Ginkobiloba by the caring psychiatry team. An improvised structured speech and language exercises were drafted since standardized tools were not available. The department's occupational therapist was put through on how to apply the exercises on the patient, whom was doing well on indoor activities, like table tennis and snooker games.

After 12 weeks on admission, Mr. F.H's language deficits improved remarkably that he could initiate and maintain discussions though with difficulties understanding what he is communicating. Speech became fluent without neologisms though with occasional repetition of phrases and word finding difficulties. He could write his name, identify objects properly, able to follow both verbal and written instructions, and could identify mathematical symbols correctly. His mood and affect were normal and he was more insightful to his speech problem. An effort, through his relations to reconcile him with his wife (this was requested by Mr. FH while on admission) was unfruitful. However, he related with his children on phone. He left the hospital in the care of a younger sister, who promised to get him a computerized, self- help speech and language kit overseas.

## DISCUSSION

Schizophrenia is a mental disorder characterized by abnormalities in the perception or expression of reality. It most commonly manifests as auditory hallucinations, paranoid or bizarre delusions or disorganized speech and thinking with significant social or occupational dysfunction<sup>7</sup>. Onset of symptoms occurs in young adulthood with around 0.4-0.6% of the population affected<sup>8</sup>. Diagnosis is based on the patient's self-reported experiences and observed behavior. No laboratory test for schizophrenia currently exists although magnetic resonance imaging (MRI) has demonstrated abnormalities of brain structure, particularly of the temporal and frontal lobes<sup>9</sup>, and are thought to be neurodevelopmental in origin. Schizophrenia-like disorder originally refers to patients with schizophrenia of good prognosis, but this term is also used when there is an identifiable cause of schizophrenic manifestations in a person, or when the duration of illness does not meet with the ICD-10 or DSM-IV (5) criteria for a diagnosis of schizophrenia. Schizophrenia like psychoses are known to manifest with some neurological disorders, as in epileptic patients with temporal lobectomy<sup>10</sup>.

Cognitive deficits as well as emotional and behavioral changes may occur after cardiovascular accidents (CVA) and such changes are related to the area of affectation in the brain<sup>11</sup>. Aphasia which is a disturbance of the ability to use language, whether in speaking, writing or comprehending is among the multiples of psychiatric manifestations in patients with stroke. Psychosocial factors like difficult socio-economic situations, loss of one's loved ones, unemployment, migration, less education, and having a low social support influence the risk for psychiatric illnesses as it is with hypertension and stroke respectively<sup>11</sup>.

Mr. FH's experienced losses, being unemployed and his present poor socio-economic status, coupled with the problems in his marriage, could have triggered the psychotic manifestations earlier observed in him. Following the subsequent heavy use of alcohol, chain smoking and very likely previously undetected high blood pressure, a cerebro-vascular accident was not unlikely to befall him. Excessive use of alcohol and cigarette by psychotic patients was claimed to help mellow the unpleasant effects of their psychotic experience<sup>12</sup>.

Affectation of the receptive and expressive areas in stroke could cause language problems that are easily mistaken for schizophrenic speech disorders, especially in a patient with pre existing psychotic illness<sup>13</sup> as was in the illustrated case. In this situation, diagnosis is mainly by the patient's presenting bizarre behavioral manifestations, and /or a reliable history from the patient's relations or close allies; hence, psychiatrists should be alert to possible underlying physical factors masking some psychiatric patients' illness presentation. The poverty of knowledge on basic psychiatry presentations among physicians is a negative factor that contributes to misdiagnosis and eventual poor or inappropriate management of psychiatric patients by them, and this is even worse with a co-existing physical illness, thereby raising the risk of prolonged morbidity, and mortality in such patients.

Patients' and their relations' beliefs about illness causation determines the choice of treatment for an illness<sup>14</sup>. Psychiatric illnesses very often are believed to be caused by supernatural factors among Nigerian patients and their relations, and this could delay the time of onset of orthodox psychiatric treatment in such patients<sup>14</sup>. Mr. FH's relations beliefs about the hand of evil doers and demonic forces in the cause of their brother's ill state of health, led to their seeking religious healing through deliverance, in treating his problems and this contributed to the delay in the time to diagnose and institute appropriate care to the patient.

## CONCLUSION

This report has highlighted the need for doctors attending to psychiatric patients to do full 'work-up' on such patients which should involve detailed history taking and thorough physical examination. This will help minimize the risk of high morbidity and mortality in this class of patients, like Hippocrates, doctors are advised to approach the management of patients in a holistic manner bearing in mind that psychiatry and physical disorders have a complicated relationship. Public education on mental health issues is vital to educating the public on the right information about mental health and the better care options for members that come down with psychiatric problems.

Addressing the dearth in mental health facilities and manpower in the country should be pointed out to the country's policy makers as an area that needs urgent attention.

## REFERENCES

1. Eastwood, M. R. "Physical Illness and Depression: A Number of Conundrums." *Principles and Practice of Geriatric Psychiatry*. Edited by J. R. M. Copeland, M. T. Abou-Saleh, and D. G. Blazer. Chichester, U.K.: John Wiley & Sons, Ltd., 1994
2. Robins, L. N., and Regier, D. A., eds. *Psychiatric Disorders in America: The Epidemiologic Catchment Area Study*. New York: The Free Press, 1991.
3. WHO Mental Health Policy and Service Guidance Package. *Organization of Services for Mental Health* 2003; 10-42
4. Aghukwa NC. Medical Students' Beliefs and Attitudes Toward Mental illness: Effects of a Psychiatric education. *Acad psychiatry* 2010; 34:67-69.
5. Szofia SB, Lyvia SC, Theodore AS. Aphasia: Associated Disturbances in Affect, Behaviour, and Cognition in the Setting of Speech and Language Difficulties. *Psychosomatics* 2007; 48: 258-264.
6. Adams and Victor's *Principles of Neurology*, 8<sup>th</sup> Edition. New York, McGraw-Hill, 2005, p413-429.
7. Kaplan and Sadock. In *Synopsis of Psychiatry* 10<sup>th</sup> edition.
8. "Schizophrenia" Internet Mental Health: <http://www.mentalhealth.com>.
9. Niznikiewicz MA, Kubcki M, Shenton ME. Recent structural and functional imaging findings in schizophrenia. *Current opinion in Psychiatry* 2003; 16:123-147. Gelder, Michael, Andreason et al. *New Oxford Text book of psychiatry*; 2<sup>nd</sup> edition.
10. Shaw P, Mellers J, Henderson M et al. Schizophrenia like psychosis arising de novo following a temporal lobectomy: timing and risk factors. *J.neural Neurosurg Psychiatry* 2004;75:1003-1008.
11. Levenson JL. Psychiatric Issues in Neurology, Part 1: stroke. *Primary Psychiatry* 2007; 14:37-40.
12. Margolese HC. Drug and alcohol use among patients with schizophrenia and related psychoses: levels and consequences. *Schizophrenia Research* vol 67;3: 157-166.
13. Rizzo M, Eslinger PJ. *Principles and Practice of Behavioral Neurology and Neuropsychology* pg. 389-408.
14. Adebowale TO, Ogunlesi AO. Beliefs and Knowledge about aetiology of mental illness among Nigerian psychiatric patients and their relatives. *Afr. J Med Med Sci.* 1999; 28 (1-2):35-41.

## NEWS AND NOTICES

### Errata

Nigerian Journal of Medicine, April - June, 2011  
Vol. 20 No. 2, Pg. 289  
Correct initials are Chukwuka I. O. and not I. F.