Case Report

Very Late-onset Schizophrenia Like Psychosis: Case Series and Future Directions

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ABSTRACT

The quest to unravel the mysteries of schizophrenia has led to immense research in this area over the years. Previously schizophrenia was considered to strictly be an early onset disorder. However, the heralding of baby boomers, with a subsequent surge in the elderly population, has led to growing curiosity in the geriatric age group with schizophrenia. The nosology of late-onset and very late-onset schizophrenia like psychosis (VLOSLP) has remained contentious. The international late-onset schizophrenia (LOS) group has proposed that schizophrenia with an onset between ages 40 and 60 be termed LOS and above 60 years termed VLOSLP. We present two case reports of VLOSLP and its relevance to the present day context.

Key words: *C-reactive protein, partition delusions, persecutory delusion*

INTRODUCTION

Manfred Bleuler pioneered the studies of late-onset schizophrenia (LOS) in 1940s. He examined 126 patients whose illness began after 40 years of age. These late-onset cases constituted 15% of the schizophrenia patients, 4% of these patients had an onset after 60. About 50% of patients with LOS had symptoms that were indistinguishable from those seen in schizophrenic patients with the more typical younger age of onset.[1] The diagnostic and statistical manual of mental disorders-III (DSM-III) (1980) stated that the schizophrenia label could apply only if onset occurred before age 45. Although, this stipulation was dropped in DSM-III-R (1987), but by now it had led psychiatrists to believe that schizophrenia simply did not begin in late life. The inclusion within DSM-III-R, of a separate category for patients whose illness emerged after age 45, was largely in reaction to the unsatisfactory upper limit for age at the onset that had hitherto prevailed for a diagnosis of schizophrenia. Presently, all cases that satisfy diagnostic criteria for schizophrenia, regardless of onset age, fall into the same illness category as neither International Classification of Diseases-10 nor DSM-IV-TR contain separate codeable diagnoses for LOS and very late-onset schizophrenia like psychosis (VLOSLP). India, with its ever growing geriatric population warrants a clearer perspective on the concepts of LOS and VLOSLP.[2]

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CASE REPORTS

Case 1

At 2 years ago, Mrs. C.B., a 72-year-old widow, was brought by her son in a rather distraught state. At the time, since the last 6 weeks, she repeatedly complained to her son that her daughter-in-law was "out to get her." She was certain that her daughter-in-law was poisoning

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her food. Frequent quarrels ensued at home. Her appetite took a toll. She further added that there were "voices" of unfamiliar men, who commented on all her daily activities. Two weeks ago, she was seen trying to strangulate herself in order to make the voices stop. Medication was started, but discontinued immediately as she was certain it was poisonous and one of her daughter-in-law's many plots. Sleep eluded her. No significant past history. She was premorbidly described as suspicious and introverted. She was physically well, at ease, oriented and expressive. No affective symptoms or formal thought disorders. Persecutory, well systematized delusions against the daughter-in-law, along with partition delusions, in which she believed that daughter-in-law, would transgress the walls of her room and kill her at night were present. Third person auditory hallucinations with sinister content were present continuously. Neuropsychiatric examination revealed no abnormality. Her mini-mental status examination (MMSE) score was 28/30, Addenbrooke's Cognitive Examination Revised (ACE-R) was 96/100. Magnetic resonance imaging (MRI) brain showed age related cortical atrophy. A trial of low dose oral risperidone 0.5 mg at night was initiated and gradually titrated up to 1 mg. Concurrent psychosocial intervention resulted in substantial improvement. Patient has been attending regular follow-ups and is symptomatically better ever since.

Case 2

Mrs. SJ, an 84-year-old widow, educated till the 10th grade, was brought by her children with history of change in behavior, suspiciousness and social impairment. She would repeatedly complain of the neighbor's malicious intent. She appeared to be restless as kept checking the doors, ensuring her safety. She would place her ears to the wall as if trying to eavesdrop. No significant past history. Premorbidly extroverted, she had an avid interest in writing poems. Mental status examination revealed an edentulous co-operative female. No affective disturbances. No thought disorders. Patient had systematized paranoid and referential delusions regarding the "evil" neighbors. She insisted they were after her life so that they could purchase her house. Third person, intermittent auditory hallucinations discussing her, was also reported and had no insight into her illness. MMSE was 30/30 and ACE-R (Hindi) was 99/100. MRI brain was normal. Treatment was initiated with low doses of risperidone, like in the previous case, along with psychosocial intervention following which significant improvement was noted.

DISCUSSION

Epidemiology

The point prevalence of paranoid ideation in the general elderly population is 4-6%, but most of these patients will have dementia. The proportion of schizophrenia patients whose illness first emerged after the age of 40 is around 23.5%.[2] A female preponderance and presence of persecutory delusions (83%) has been noted in the Indian subcontinent. Furthermore, in India, 2.04% patients with schizophrenia have onset after the age of 40 along with a male: Female ratio of 1:1.67.[3,4] However, compared with their Western counterparts, Indian studies carried out on LOS and VLOSLP are sparse. One may still question about the real prevalence rate in the community as VLOSLP often goes undiagnosed and the reason being that the older patients tend to be socially isolated. The family members too are reluctant to intervene; hence, fewer deserving patients have contact with the psychiatric services.

Clinical presentation

Most striking differences in presentation of VLOSLP from early onset schizophrenia (EOS) group patients are negligible rates of primary negative symptoms and formal thought disorder in VLOSLP. Pearlson *et al*. reported LOS and VLOSLP group are more likely to exhibit persecutory flavor in their delusions.[5,6] Furthermore, hallucinations in the visual, tactile and auditory modalities are more common. Auditory hallucinations may be the third person, running commentary and abusive in content. Partition delusions, though not pathonogmic, are more frequent in the older subgroup.[7]

Risk factors

While EOS is more common in men, women predominate in the LOS and VLOSLP group with female: Male ratio between 3:1 and 20:1. Reason for a female preponderance is that this condition is associated with a concurrent decline of estrogen levels as the age progresses and a relative excess of dopamine D2 receptors. Furthermore, psychosocial factors, such as better use of coping behavior strategies and social support schemes, delay the onset of schizophrenic symptoms in women. Family studies show that relatives of patients with EOS were at a 10.2% risk of developing schizophrenia, compared with a 2.9% risk in relatives of LOS and VLOSLP.

Association of sensory impairment in different modalities is higher in VLOSLP. However, some cases showed "corrected" visual and hearing impairment in the same group of patients. Hence, the data varies and the causality cannot be ascertained. Premorbidly of sound educational, occupational and psychosocial functioning, many patients of VLOSLP are reported to have schizoid or paranoid personality traits.[5]

Management

Patients who present with VLOSLP warrant a thorough evaluation to exclude an underlying cause. Of much

importance are in-depth physical examination, neuropsychological evaluation, laboratory investigations and neuroimaging. Antipsychotics are the main stay in the acute symptoms of VLOSLP and reduce the risk of relapse. The changing pharmacokinetics and pharmacodynamics, combined with increased incidence of comorbid physical disease and polypharmacy, makes older patients more susceptible to side-effects and adverse reactions of neuroleptics. An average daily dose of 148 mg/day chlorpromazine equivalent in elderly was efficacious as compared to >300 mg/day in the younger patients.[8] Atypical antipsychotics are preferred in light of fewer adverse effects and lower risk of extrapyramidal syndromes. Risperidone, olanzapine and quietiapine in low dose have been found to be effective and well-tolerated in VLOSLP.[9] The dictum "start low, go slow," is worth adhering to.

Clozapine has shown promising effects in low dose. However, due to its side-effect profile, its use should be reserved for treatment resistant cases or those with severe tardive dyskinesias. Sertindole and quetiapine have been shown to be at par with haloperidol for treatment of VLOSLP. Use of depot medications at lower doses may ensure successful compliance but needs further study. Nutritional supplementation is very important in the geriatric population. Insufficient data is available on the use of electroconvulsive therapy in VLOSLP patients. Cognitive behavior therapy, social skills training and supportive psychotherapy are valuable adjuncts in improving functioning and over-all management. They help address paramount psychological issues related to late life like retirement, grief over losses, financial limitations.

Recently, a link between elevated levels of C-reactive protein (CRP) and increased risk for LOS and VLOSLP has been proposed in a recent study done by Marie Kim Wium Anderson. It adjusted all other factors that could increase CRP, e.g., smoking, body mass index, alcohol, education, income, diabetes and all risk factors. Results showed a significant 6 times increased risk of schizophrenia, in those who had even very small elevations of CRP in the older age groups. These results were presented at the 2013 American Psychiatric Association meeting.[10] India, with its ever increasing population demands and multi-center long-term follow-up, requires more studies to gain further information about the course of illness, regardless of the age of onset. Epidemiological studies should use standardized criteria, barring the criterion that excludes the diagnosis of schizophrenia based on late age of onset.

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