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Case Report

Should Vaccines be Available to Prevent Respiratory Illnesses in People with Severe Mental Illness? Two Case Reports

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Abstract

People suffering from severe and enduring mental illness have increased mortality and reduced life expectancy and the latter is estimated as 10 to 20 years less than the general population. Various factors including suicide, smoking, side effects of medications, sedentary lifestyle, drug and alcohol use, and unhealthy diet contribute to this increased mortality. In recent years due to the increased awareness about prevalence, incidence, and consequences of metabolic syndrome and the impact of smoking on mental health, most clinical services have implemented strategies to manage these concerns. An area that has, unfortunately, not received adequate attention has been the lack of awareness about respiratory comorbidities and associated poor clinical outcomes in patients with severe mental disorders. In this article the authors would like to highlight the association of severe respiratory illness and its consequences in patients with chronic mental disorders.

Keywords: *Severe Mental Illness; Respiratory Illness; Pneumococcal and Influenza Vaccinations*

Introduction

People suffering from severe and enduring mental illness have increased mortality and reduced life expectancy and the latter is estimated as 10 to 20 years less than the general population [1]. Although various factors including suicide contribute to this increased mortality, smoking (66%) and asthma (30%) are increasingly becoming common in this population and might be contributing substantially to the increased mortality [2]. Other factors that contribute to an increased risk of developing chronic medical conditions in psychiatric patients include the side effects of medications, sedentary lifestyle, smoking, drug and alcohol use, and unhealthy diet [3]. Of note, the introduction of second-generation antipsychotics has led to significant weight gain and associated metabolic syndrome [4]. Furthermore, people suffering from mental health problems are often the most vulnerable and deprived in society, who are unable to seek care and face multiple hurdles to navigate agencies and access services., leading to poor help seeking for physical health problems [5].

With the increasing awareness of the prevalence, incidence, and consequences of metabolic syndrome and the impact of smoking on mental health, most clinical services have implemented strategies to manage these in recent years [6,7]. However, an area that has, unfortunately, not received adequate attention has been the lack of awareness about respiratory comorbidities and associated poor clinical

outcomes in patients with severe mental disorders [8,9]. These include reports of aspiration due to clozapine-induced sialorrhea [10], increased risk of tuberculosis in institutionalized patients [7] and long-term complications of chronic obstructive pulmonary disease (COPD) or pneumonia, leading to respiratory failure [8]. Reports have identified, pneumonia was identified as the most common single cause of death in patients on clozapine compared to depot Risperidone [11].

Here we report two recent cases that highlight the association of severe respiratory illness in patients with chronic mental disorders and we advocate for the routine use of influenza and pneumococcal vaccination in these at risk cases.

Case Reports

Case 1: Ms. A was a 55-year-old female with a 20-year history of schizoaffective disorder with multiple comorbid medical conditions that included obesity, type 2 diabetes mellitus, mild renal failure, recurrent pneumonia, and COPD. She was treated with clozapine, amisulpride, lithium, and valproate. Serum levels of both lithium and clozapine were within the therapeutic range. She has been on clozapine since 2004 and a recent routine echocardiogram was normal. She was compliant with medications and psychiatric reviews. She was recently found deceased at her home with the possible cause of death as cardiorespiratory arrest of unknown cause. Her history of recurrent pneumonia suggested that a possible cause of death was secondary to respiratory infection.

Case 2: Mr. B was a 45-year-old male with 15 year history of schizophrenia with comorbid Gilbert syndrome, obesity, nicotine dependence, sleep apnea and COPD. He has been receiving maintenance ECT every fortnight and has been on Clozapine for almost three years with therapeutic serum levels. A recent routine echocardiogram showed mild concentric left ventricular diastolic dysfunction and tachycardia. A subsequent cardiac stress test showed normal left ventricular systolic function and adequate cardiac workload without ischaemic changes. He was compliant with medications and regular with his psychiatric and medical reviews. He was recently found deceased at his home following an episode of acute respiratory infection, with the possible cause reported as a cardiorespiratory arrest.

Discussion and Conclusion

Although it is difficult to completely attribute respiratory failure as the cause of death in both cases, mental health clinicians need to be aware of such a possibility in addition to possible causes such as myocarditis caused by drugs like clozapine [12]. There are no studies to date about vaccination rates in patients with severe mental illnesses and the existing treatment guidelines do not address this issue adequately [6,7]. We believe, there are cost-effective preventive strategies, such as Pneumococcal and Influenza vaccinations that should can be routinely considered in at risk cases like ours. Interestingly, these vaccinations are already recommended for use in the healthy population and also for patients with various other health-related issues, for example, in patients with COPD, age > 65 yrs, or in post splenectomy patients [13]. We suggest routine vaccinations for influenza and pneumococcal infections to patients with severe mental illness and it should be included in the guidelines for management of medical comorbidities in chronically mentally ill patients to prevent morbidity, mortality, and also to improve the life expectancy.

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