Early Identification of an Influenza Outbreak in a Nursing Home With High Vaccination Coverage Facilitates Implementation of Infection-Control Measures and Prevents Spreading of Influenza Infection

To the Editor:

Older residents in a nursing home have a high risk of infection-related hospitalization and mortality.\(^1\)\(^2\) Nursing homes are prone to have an influenza outbreak, and influenza vaccination is important for them to decrease the risk of influenza infection and related complications.\(^3\)\(^4\) However, vaccine effectiveness may be low in some seasons when there is a mismatch between the vaccination and the circulating strains.\(^5\) In the 2013/2014 season, an influenza outbreak was studied in a 3-floor nursing home with high vaccination coverage in Hong Kong.

The nursing home in which the outbreak occurred is 1 of the 70 nursing homes located in the Hong Kong West Cluster of the Hospital Authority. It is a 3-floor nursing home with different floors connected by an elevator and stairs that housed a total of 191 residents. Residents ranged in age from 58 to 102 years (median 82 years); 72% were women. Most of the residents have impaired mobility and impaired ability in performing activities of daily living. Residents shared common activity and eating areas on the floor where they lived. In November 2012, 85% (162 of 191) of residents received the trivalent seasonal influenza vaccine, which contained 15 μg each of A/Victoria/361/2011, A/California/7/2009, and B/ Wisconsin/1/2010 influenza strains.

The outbreak started with 5 residents living on the second floor of the nursing home (Figure 1). They developed symptoms of influenza-like illness (ILI) on July 23. ILI was defined as the sudden onset of any general symptoms (fever, headache, or myalgia) in addition to any respiratory symptom (cough, sore throat, or shortness of breath). During the period of July 23 to August 1, 2013, 48 (25%) of the 191 residents developed symptoms consistent with ILI; 37.5% (18 of 48) of them required hospitalization. There was no significant difference of attack rate between vaccinees and nonvaccinees (ILI: vaccinees 40 of 162, nonvaccinees 8 of 29, \(P = .518\)). Twelve residents subsequently were confirmed to have influenza A(H3N2) through reverse transcriptase-polymerase chain reaction by nasopharyngeal aspirates on hospitalization. There were no deaths. Among those infected, 43 lived on the second floor and 5 lived on the third floor. No resident of the first floor was infected during the outbreak. The outbreak coincided with an influenza endemic wave in the general population from July 21 to October 10.\(^6\)

The outbreak was detected by the community geriatric assessment team (CGAT), which provides comprehensive outreach assessment for nursing home residents, when there were 2 residents confirmed to be infected by influenza A on July 25. The infection control team of CGAT and the Centre of Health Protection (CHP) then visited the nursing home 5 times (July 25, 26, 30, and August 1), with 17 therapeutic oseltamivir and 70 prophylactic oseltamivir prescribed. The community nurse visited the nursing home on Jul 25. Health advice was given, including to maintain good personal and environmental hygiene; maintain good ventilation and keep windows open; encourage staff, residents, and relatives to wear surgical masks and receive directly observed hand hygiene; enhance environmental disinfection in the nursing home by using diluted household bleach of sodium hypochlorite 1000 ppm; cohort the symptomatic residents and designated staff to care for the residents; advise symptomatic staff to seek medical advice and avoid work until symptoms subside; and minimize mixing activities. With these infection-control measures, although the clinical attack rate of the second floor was 55% of the attack rate of the third floor, there was no infected case on the second floor (ILI: first floor, 0 of 48; second floor, 43 of 77; third floor, 5 of 66; \(P < .001\)). There were 54 health care workers in the nursing home and none of them were infected.

An influenza outbreak was detected in a nursing home with high vaccination coverage and there was no significant difference in the attack rate between vaccinees and nonvaccinees. It indicated insufficient vaccine effectiveness to contain the spread of the influenza virus in nursing homes during this season. A report from CHP reported that the 2012/2013 influenza vaccine reacted less well to the circulating strain.\(^8\) Well-matched influenza vaccine could effectively reduce influenza infection and related complications. However, proper and timely infection-control measures are also important. In this outbreak, early identification through active influenza surveillance by CGAT and the infection-control team of CHP facilitated timely implementation of measures, including therapeutic oseltamivir, prophylactic postexposure oseltamivir, and enhancement of infection-control measures.\(^9\)\(^10\) These measures minimized the clinical attack rate of other floors and prevented extensive multifloor outbreak in the 3-floor nursing home.

In conclusion, active influenza surveillance facilitates timely implementation of enhanced infection-control measures in nursing homes and prevents a multifloor outbreak of influenza even though the matching of the vaccine was not good.

References

Trichotillomania Successfully Treated With Risperidone and Naltrexone: A Geriatric Case Report

To the Editor:

Trichotillomania is a chronic psychiatric condition characterized by uncontrollable, self-inflicted hair pulling resulting in noticeable hair loss. The hair pulling may occur anywhere on the body; with the scalp and eyelashes most commonly affected. Onset is often during childhood or early adolescence. Once presumed to be an obscure condition, the estimated source for lifetime prevalence is 1.5% for male and 3.4% for female college students. Because of the secrecy and shame about their behavior, many remain silent sufferers, and treatment is often delayed.1 Trichotillomania is a little-known disorder with wider prevalence and more significant consequences than previously believed. While sharing similarities with obsessive-compulsive disorder, compelling differences from it have also been noted. Trichotillomania is an underdiagnosed and under-reported condition associated with significant social and functional impairment.2

In this paper, trichotillomania successfully treated with risperidone and naltrexone in an 85-year-old Slovenian female is presented.

We report the case of an 85-year-old Caucasian female with major depressive disorder and Alzheimer’s disease who was admitted in 2008 to a nursing home because of deep dementia. Her score on the Mini-Mental State Examination was 14/30. Her past history was unremarkable except for major depressive disorder and Alzheimer’s disease treated for many years with sertraline 25 mg/day and memantine 20 mg/day. There was no family history of adverse skin reactions to trichotillomania. Laboratory results collected on admission were all normal, including a normal complete blood cell, electrolytes, liver enzymes, and liver functions tests.

Onset of trichotillomania without any newly increasing psychiatric symptomatology was occurred in 2013. Patient was often pulling only 1 hair at a time, and these hair pull episodes lasted for hours at a time. The patient was sent to a dermatologist and was diagnosed with trichotillomania and haloperidol was suggested. In accordance with the warning about adverse effects before the use of haloperidol in geriatric population, a low dose of risperidone (0.5 mg/day) and naltrexone (25 mg/day and increased to 50 mg/day after 14 days) were prescribed by her psychiatrist. Therapeutic effect was evidenced by complete decrease of the symptoms of trichotillomania after 2 weeks of treatment. No adverse effects of the medication were observed. The therapeutic plan is the discontinuation of naltrexone after 3 months and risperidone after 6 months of therapy, which also depends on possible adverse drug reactions.

We have some evidence about trichotillomania treatment with naltrexone and risperidone. A pilot open study with 14 patients with childhood-onset trichotillomania and duration of 10 months suggested the use of naltrexone in childhood-onset trichotillomania.3 Holtum et al described the case of successful treatment of trichotillomania in a young autistic girl, who was treated with combined clomipramine and behavioral therapy. In this case, neither behavioral therapy, clomipramine, nor naltrexone was effective in monotherapeutic trials. In this case, the treatment combination of naltrexone with risperidone used in geriatric patient and early pharmacotherapy onset are unique. There were no other medication changes or medical conditions that could have explained this result. In this case, because sertraline was administered in low dosage even before the onset of trichotillomania, therapeutic effect could not be expected. Risperidone, an atypical antipsychotic with similar receptor affinity as haloperidol in low dosage, was used in combination with naltrexone with the intention of blocking the endorphine response and ultimately desensitizing any self-harm related compulsions. Based on the quick response of the patient, it seems that the applied therapy may represent a safe and effective solution for the trichotillomania in geriatric patients with severe dementia. We postulate a synergistic effect of this particular combination, suggesting that pharmacologic treatment of hair pulling may be necessary for many patients with trichotillomania.

In conclusion, although case reports are of limited value in trichotillomania or skin picking disorder because patients with either of these conditions show significant improvement over time with placebo or inactive control conditions; such a case with geriatric patient has not yet been described in literature. Moreover,