

# A Patient with Chronic Schizophrenia Presenting with Multiple Deliberate Self-harm and Genital Self-mutilation

## 一精神分裂症病人之多次蓄意自殘個案

JTY Cheuk, E Lee, GS Ungvari

卓天欣、李浩銘、GS Ungvari

### Abstract

We report a case where a patient with chronic schizophrenia presented with multiple episodes of deliberate self-harm including genital self-mutilation. This is an illustrative case history demonstrating the possible risk factors for deliberate self-harm and includes discussion of the phenomenon of hypoalgesia in schizophrenia.

**Key words:** *Genitalia, male; Hallucinations; Schizophrenia; Self-injurious behavior*

### 摘要

本文報告一名患有慢性精神分裂症的病人，他多次蓄意自殘，包括切割自己的生殖器官。這案例帶出蓄意自殘病人的危險因素。本文並討論精神分裂症病人的痛覺遲鈍現象。

**關鍵詞：**男性生殖器官；幻覺；精神分裂症；蓄意自我傷害

### Introduction

Patients with severe psychiatric illnesses have a greater risk of suicide compared to the general population.<sup>1</sup> Suicide is the major cause of mortality in schizophrenia,<sup>2</sup> and deliberate self-harm (DSH) is a strong predictor of suicide in schizophrenia.<sup>3</sup> Deliberate self-harm is prevalent among patients with schizophrenia. One study reported a rate as high as 48% over a follow-up period of 14 to 17 years.<sup>4</sup> Five characteristics are considered significant predictors of DSH in schizophrenia: past or recent suicidal ideation, a history of DSH, a past depressive episode, drug abuse or dependence, and a higher number of psychiatric admissions.<sup>4</sup> Social and environmental factors, such as being married,<sup>5</sup> lack of stimulation and interaction with others have also been

identified as risk factors for DSH. Deliberate self-harm can be extremely harmful and can lead to permanent damage that affects daily functioning; 2 examples are self-inflicted eye injuries,<sup>6</sup> such as enucleation, and genital self-mutilation, such as autocastration.<sup>7</sup>

We report a Chinese patient with schizophrenia with repeated self-harm, including genital self-mutilation. This is an illustrative case demonstrating the risk factors for DSH, also prompting thought about the phenomenon of hypoalgesia.

### Case Report

Mr. A, a 49-year-old Chinese man, had his first episode of DSH in 1992, 2 years after he was diagnosed with schizophrenia.

Mr. A was born in Hong Kong, the youngest of 8 siblings. His eldest brother suffered from a psychiatric disorder — the exact nature of which could not be identified — and died in his 40s of unknown causes. Mr. A studied up to Form 1 then quit school due to poor academic results. He worked in factories and, more recently, as a cleaner. He had no history of substance abuse but had been smoking for 20 years. He married when he was 28 years old and had 2 sons. His wife left him 10 years ago, taking the 2 sons with her, following a quarrel over Mr. A's gambling on horse racing. They have had no contact since then. Mr. A moved to live with his father, with whom he felt he had a close relationship. After his father's death 2 years ago,

*Dr Justina TY Cheuk, MBChB, Department of Psychiatry, The Chinese University of Hong Kong, Hong Kong, China.*

*Dr Edwin Lee, MSc, MBChB, MRCPsych, Department of Psychiatry, The Chinese University of Hong Kong, Hong Kong, China.*

*Prof Gabor S Ungvari, PhD, FRCPsych, FRANZCP, FHKPsych, FHKAM (Psychiatry), Department of Psychiatry, The Chinese University of Hong Kong, Hong Kong, China.*

**Address for correspondence:** *Dr Edwin Lee, Department of Psychiatry, Tai Po Hospital, New Territories, Hong Kong, China.  
Tel: (852) 2607 6035; Fax: (852) 2667 1255;  
E-mail: elee@cuhk.edu.hk*

**Submitted:** 1 September 2008; **Accepted:** 21 October 2008

he lived alone in a flat. He was described as quiet and introverted. Mr. A led a solitary life, enjoyed music and horse betting.

Mr. A became known to the mental health service in 1990 when he started attending an outpatient psychiatric clinic for 2 episodes of psychotic symptoms. He was admitted to a psychiatric ward a year later for attacking 2 passers-by in the street as he felt they were talking about him. Prior to that incident, he had failed to attend his outpatient appointments and stopped taking his medications. He believed a computer located in the factory at which he had previously worked was producing itchiness, movements of his mouth, and pornographic ideas in his mind. After admission, he was prescribed with haloperidol and fluphenazine depot injections. His psychotic symptoms resolved.

In 1992, Mr. A was admitted again, after he amputated his left index finger. One week prior to this event, he heard his thoughts being echoed as fragments of sentences. On the night of the amputation, he suddenly realised that someone wanted to harm his elder son while he was washing the dishes in the kitchen. Believing that he could prevent this by chopping off his left index finger, he acted on the idea immediately. He was fully conscious and did not experience any pain. His wife promptly called an ambulance. After an emergency operation, he was transferred to the psychiatric ward, when he reported hearing voices talking to each other. One voice told him that the reason for his finger-amputation was to release various “gods and fairies” to save the world. He believed the voices were from a traditional Chinese god and a devil, “Kwun Yam” and “Tin Gau” respectively. He had no regret about his act. He was transferred to a psychiatric unit after stabilisation of his physical condition. His condition improved after resumption of medication.

In 1994, Mr. A had his second episode of DSH when attempting to amputate his left little finger. It was a partial amputation and emergency repair of the ruptured tendon was performed. The events leading up to it were similar to those of the first episode, with Mr. A again complaining of having thought echoes and hearing voices threatening to persecute his family if he did not chop his finger off. His drug compliance had been poor. He was discharged on chlorpromazine and flupenthixol injections.

Mr. A was in remission until 2001, when he was admitted 3 times for the exacerbation of psychotic symptoms, which were probably precipitated by poor drug compliance. In November 2001, he repeatedly threw himself to the ground, in response to the voices of “Kwun Yam” and “Tin Gau”, resulting in chin lacerations and loss of 2 of his teeth. His condition improved with chlorpromazine and flupenthixol injections. The community psychiatric nurse visited him regularly after discharge.

In 2003, he chopped his left little finger off completely while under psychotic influence, and was admitted to a psychiatric unit after an emergency operation. After discharge, he was put on depot zuclopenthixol and oral chlorpromazine. Mr. A attended the outpatient clinic regularly and showed residual symptoms. He was reluctant

to have clozapine treatment.

One year later, Mr. A presented himself to the emergency department after amputating his penis. He was told by “Kwun Yam” that he would save the world by doing so. He admitted that in the week leading up to the amputation he had not taken his oral chlorpromazine. He did not bring his amputated penis with him to the hospital because he was in too much of a hurry — he was scared that he would bleed to death. After successful urethral repair, he was transferred to a psychiatric unit. He said that he was glad to have removed his penis as he felt it had eliminated his urge to visit prostitutes, which “would only bother him”. His depot medication dosage was increased, and oral haloperidol was added.

Upon discharge from his last admission in 2006, the residual voices were still persisting. Mr. A tried to get a job as a cleaner but quit after 2 weeks as he found the job stressful. He was still able to cope with household chores. At the time of writing he has been in a chronic psychiatric ward for over a year for an exacerbation of his psychotic symptoms, including having the auditory hallucinations turn from neutral to derogatory and the reappearance of the impulses to chop off his fingers. At present he is being maintained on a daily regimen of risperidone 5 mg, benzhexol 4 mg, propranolol 20 mg, and diazepam 7 mg. He also receives a long-acting injection of risperidone, 50 mg, every 2 weeks. He participates satisfactorily in occupational therapy and the plan is to arrange a supervised residential service.

## Discussion

Several risk factors for DSH<sup>8</sup> were present prior to the penis amputation: previous DSH, repeated psychiatric admissions, social isolation and, for the first episode of finger amputation, being married. Command hallucinations were the immediate risk factor; a recent study has found that these are common (53%) amongst Asian patients with schizophrenia and that there is a high rate (62%) of acting upon them. The same study also found that a history of self-harm predicts compliance with command hallucinations.<sup>9</sup> A systematic review of DSH in schizophrenia did not find any association between it and the presence of auditory hallucinations or delusions, however.<sup>3</sup>

Genital self-mutilation is a rare sub-type of DSH. The first case of male genital self-mutilation was described in 1901.<sup>10</sup> Since then, around 100 cases have been reported and a number of comprehensive reviews have been published in the English literature.<sup>10-12</sup> Risk factors include homosexual or transsexual tendencies, a repudiation of male genitals, lack of identification with a competent man during childhood, guilty feelings for sexual offences, and a history of self-harm. Cases of penis amputation have also been classified into ‘psychotic’ and ‘non-psychotic’, with guilty feelings associated with sexual conflict being the most important in the former group, and sexual identity characterising the latter group. In psychotic patients the guilty feelings are often associated with religious psychotic

experiences: patients have often referred to relevant passages from the Bible such as Matthew 18:8 and 19:12. Mr. A's hallucinations were coloured with mythical characters from Chinese Buddhism. This may suggest that patients project their guilty feelings onto texts and figures of their cultural heritage rather than being directly influenced by the content of their religious hallucinations when they commit acts of genital self-mutilation.

It is interesting to note that Mr. A repeatedly emphasised that he had felt no pain during the amputation of his fingers and penis, as though he himself was amazed by the phenomenon. Diminished pain sensation in schizophrenia has been described previously; it can be so extreme that the lack of pain delays the diagnosis and management of acute, serious conditions such as peritonitis and perforated bowels.<sup>13-15</sup> A recent meta-analysis<sup>16</sup> confirmed that hypoalgesia in schizophrenia is not simply a hypothesis derived from clinical observations but a phenomenon supported by experimental data. This meta-analysis concluded that patients with schizophrenia have a moderately but significantly elevated pain threshold to experimentally induced pain stimuli compared to healthy controls. This pain insensitivity remains a poorly understood phenomenon. It has been hypothesised that this apparently decreased pain sensitivity is due to the lack of reaction to a stimulus as a result of the combined effects of affective blunting, attention deficits, motor abnormalities, and cognitive dysfunction.<sup>16,17</sup> Neurotransmitters, particularly dopamine and glutamate, may play a role in the decreased reaction to pain in schizophrenia as disturbances in their transmissions are related to both pain perception and its modulation, as well as to the pathophysiology of schizophrenia.<sup>16,17</sup> It has also been suggested that pain insensitivity might be an endophenotype, rather than a symptom of a psychotic state<sup>18</sup>: a recent study<sup>19</sup> found that the pain threshold was significantly increased in healthy volunteers with a family history of schizophrenia when compared to a control group without such a family history.

In view of its potential for extreme harm and the fact that DSH is a confirmed risk factor for suicide, preventive measures are of obvious clinical benefit. A major systematic review<sup>20</sup> found that while no intervention has been effective as a means of reducing DSH, there is a trend towards a decreased rate of self-harm following intensive aftercare, including outreach, compared with standard care. In Hong Kong, intensive aftercare is provided by the priority follow-up system, which targets patients with a history of suicide attempts or violence, or those deemed to be at risk of future violence. A recent randomised clinical trial found that cognitive behaviour therapy reduced the rate of, and lengthened the period between, suicide attempts.<sup>21</sup> The most likely reason for the paucity of evidence in this important area is that the studies have had insufficiently large sample sizes to have the statistical power to prove or disprove the efficacy of an intervention.<sup>20</sup> Randomised clinical trials are

also lacking. Future studies should address these issues because finding the best way to reduce self-harm and suicide in psychiatric patients is a vitally important clinical task.<sup>22</sup>

## References

- Osborn D, Levy G, Nazareth I, King M. Suicide and severe mental illnesses. Cohort study within the UK general practice research database. *Schizophr Res* 2008;99:134-8.
- Saha S, Chant D, McGrath J. A systematic review of mortality in schizophrenia: is the differential mortality gap worsening over time? *Arch Gen Psychiatry* 2007;64:1123-31.
- Haw C, Hawton K, Sutton L, Sinclair J, Deeks J. Schizophrenia and deliberate self-harm: a systematic review of risk factors. *Suicide Life Threat Behav* 2005;35:50-62.
- Nyman AK, Jonsson H. Patterns of self-destructive behaviour in schizophrenia. *Acta Psychiatr Scand* 1986;73:252-62.
- Simms J, McCormack V, Anderson R, Mulholland C. Correlates of self-harm behaviour in acutely ill patients with schizophrenia. *Psychol Psychother* 2007;80:39-49.
- Large M, Andrews D, Babidge N, Hume F, Nielssen O. Self-inflicted eye injuries in first-episode and previously treated psychosis. *Aust N Z J Psychiatry* 2008;42:183-91.
- Stunell H, Power RE, Floyd M Jr, Quinlan DM. Genital self-mutilation. *Int J Urol* 2006;13:1358-60.
- Nijman HL, à Campo JM. Situational determinants of inpatient self-harm. *Suicide Life Threat Behav* 2002;32:167-75.
- Lee TM, Chong SA, Chan YH, Sathyadevan G. Command hallucinations among Asian patients with schizophrenia. *Can J Psychiatry* 2004;49:838-42.
- Catalano G, Catalano MC, Carroll KM. Repetitive male genital self-mutilation: a case report and discussion of possible risk factors. *J Sex Marital Ther* 2002;28:27-37.
- Martin T, Gattaz WF. Psychiatric aspects of male genital self-mutilation. *Psychopathology* 1991;24:170-8.
- Nakaya M. On background factors of male genital self-mutilation. *Psychopathology* 1996;29:242-8.
- Rosenthal SH, Porter KA, Coffey B. Pain insensitivity in schizophrenia. Case report and review of the literature. *Gen Hosp Psychiatry* 1990;12:319-22.
- Fishbain DA. Pain insensitivity in psychosis. *Ann Emerg Med* 1982;11:630-2.
- Katz E, Kluger Y, Rabinovici R, Stein D, Gimmon Z. Acute surgical abdominal disease in chronic schizophrenic patients: a unique clinical problem. *Isr J Med Sci* 1990;26:275-7.
- Potvin S, Marchand S. Hypoalgesia in schizophrenia is independent of antipsychotic drugs: a systematic quantitative review of experimental studies. *Pain* 2008;138:70-8.
- Virit O, Savas HA, Altindag A. Lack of pain in schizophrenia: a patient whose arm was burned and amputated. *Gen Hosp Psychiatry* 2008;30:384-5.
- Singh MK, Giles LL, Nasrallah HA. Pain insensitivity in schizophrenia: trait or state marker? *J Psychiatr Pract* 2006;12:90-102.
- Hooley JM, Delgado ML. Pain insensitivity in the relatives of schizophrenia patients. *Schizophr Res* 2001;47:265-73.
- Hawton K, Arensman E, Townsend E, Bremner S, Feldman E, Goldney R, et al. Deliberate self harm: systematic review of efficacy of psychosocial and pharmacological treatments in preventing repetition. *BMJ* 1998;317:441-7.
- Brown GK, Ten Have T, Henriques GR, Xie SX, Hollander JE, Beck AT. Cognitive therapy for the prevention of suicide attempts: a randomized controlled trial. *JAMA* 2005;294:563-70.
- Nordentoft M. Prevention of suicide and attempted suicide in Denmark. Epidemiological studies of suicide and intervention studies in selected risk groups. *Dan Med Bull* 2007;54:306-69.