

# Deliberate self-harm with multiple lacerations in a 23-year-old depressed Nigerian male

Charles I. K. Iwunze, Chukwuma U. Okefor, Benjamin M. Kejeh

Department of Surgery, University of Port Harcourt Teaching Hospital, Port Harcourt, Nigeria

## Abstract

Deliberate self-harm is an extreme reaction to psychological stress. It remains the strongest known risk factor for imminent suicide. There is a dearth of information on the extent of risk, especially in this environment. Psychiatric treatment should commence as soon as the patient is clinically stable. This is to report a case of deliberate self-harm with multiple lacerations in a depressed 23-year-old male with a history of cannabis abuse. The case is a 23-year-old male student with a history of cannabis abuse and depression following psychological stressors who sustained multiple self-inflicted deep lacerations to his neck and phallus. He had multidisciplinary management by the surgical and psychiatric teams. Reducing the risk of suicide by psychotherapy and treatment of underlying psychiatric conditions should be the mainstay of management in cases of deliberate self-harm beyond treatment of injuries sustained, irrespective of their severity.

**Keywords:** Deliberate self-harm, depression, multiple lacerations

**Address for correspondence:** Dr. Charles I. K. Iwunze, Department of Surgery, University of Port Harcourt Teaching Hospital, Port Harcourt, Nigeria.

E-mail: charlesiwunze@gmail.com

**Received:** 04.12.2017, **Accepted:** 06.12.2017

## INTRODUCTION

Deliberate self-harm refers to intentional damage to one's own body, seemingly without a desire to die, however, death may accidentally occur.<sup>1</sup> It commonly occurs as self-mutilation.<sup>1</sup> Individuals may self-harm to show that they are distressed. Other forms of self-harm include self-poisoning, drug overdoses, jumps from heights and vehicular crashes. Some self-mutilators are suicidal at the time and only escape death by chance when discovered early. Others claim not to have any suicidal ideation.<sup>2</sup>

We report a case of deliberate self-harm with multiple lacerations in a young man with psychological stressors.

## CASE REPORT

B. E., a 23-year-old male undergraduate, was referred from a peripheral centre with self-inflicted injuries to his neck, left forearm, abdomen, penis and scrotum 8 h before presentation in May, 2014. He was found in his room in a pool of his own blood after having cut himself severally with a piece of broken louvre blade. There was a history of severe bleeding and severe pain at the sites of the injuries with associated dizziness and restlessness, but no history of fainting spells, dyspnoea and evisceration of abdominal viscera or amputation of body parts. He had a history of cannabis abuse with occasional outbursts of violent rage with the destruction of household articles.

### Access this article online

#### Quick Response Code:



#### Website:

www.phmj.org

#### DOI:

10.4103/phmj.phmj\_43\_17

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

**For reprints contact:** reprints@medknow.com

**How to cite this article:** Iwunze CI, Okefor CU, Kejeh BM. Deliberate self-harm with multiple lacerations in a 23-year-old depressed Nigerian male. Port Harcourt Med J 2017;11:170-4.

There was no history of hallucination, delusions, previous suicide attempts or a family history of psychiatric illnesses. He had been withdrawn from schooling abroad 2 years before presentation due to episodes of irrational behavior. He had studied accounting for 3 years. Potential stressors identified included separation from his siblings, failed relationship with his girlfriend and the loss of 3 years of studies necessitating commencement of his tertiary education afresh. His past medical and surgical histories were not contributory. He is the second of five children in a monogamous setting (three males and two females). The review of his other systems was essentially normal.

On examination at presentation, he was conscious and alert, pale, anicteric, afebrile, not cyanosed, in painful distress but not in respiratory distress. He had a deep laceration of the upper neck measuring about 6 cm × 10 cm with ragged edges. There was no active bleeding. His trachea and left carotid sheath were partially exposed. His respiratory rate was 20 cycles/min, and trachea was central, he had equal chest expansion, resonant percussion notes and vesicular breath sounds. His pulse rate was 120 beats/min, moderate volume and regular, blood pressure was 120/80 mmHg, apex beat was at the 5<sup>th</sup> left intercostal space and only the first and second heart sounds were heard. His abdomen was flat, moved with respiration with multiple superficial lacerations, mild generalised tenderness, no palpable organomegaly nor ascites and bowel sounds were normoactive. There was also a deep laceration of the dorsal aspect of the left forearm measuring 4 cm in length, and a 6 cm scrotal laceration with partial exposure of the left testis, involving the base of his penis. The mental state examination revealed depressed mood, poor judgement and lack of insight. A diagnosis of multiple self-inflicted lacerations in a patient with severe depression was made,

and he was co-managed with the neuropsychiatry unit. An otorhinolaryngology review was not contributory.

Following his self-harm, he was rushed to a peripheral centre where attempts were made to secure haemostasis and intravenous normal saline given before referral to the University of Port Harcourt Teaching Hospital (UPTH). He was commenced on intravenous fluids and a urethral catheter was passed on arrival at UPTH. An urgent packed cell volume was 23% and 2 units of blood were grouped, cross-matched and transfused. His urinalysis and electrolytes, urea and creatinine were normal, and his retroviral status was negative. He received intravenous antibiotics, analgesics and psychotropic medications. The scrotal and penile lacerations were sutured primarily; however, the neck injury was debrided, dressed daily with normal saline and sofra-Tulle gauze. Psychotherapy was also commenced when stability was achieved. A bilobed flap cover was planned for the laceration to the neck, however, with adequate wound granulation during a period of industrial action in the hospital, skin cover with split skin grafting was done. He continued his treatment with the neuropsychiatry unit but was lost to follow-up.

## DISCUSSION

Deliberate self-harm (DSH) also called parasuicide commonly occurs as self-mutilation. The most common site mutilated is the wrist,<sup>1</sup> with the most severe forms extending to ocular enucleation or even self-castration (Eshmun complex).<sup>3</sup> Mutilators differentiate their actions from suicide attempts.<sup>1,2</sup> Self-mutilation dates back to antiquity though the reasons have often varied.<sup>4</sup> The Holy Bible describes how the priests of Baal slashed themselves with knives in a bid to make rain.<sup>4</sup>



**Figure 1:** Lacerated neck of index patient



**Figure 2:** Lacerated phallus of patient

Suicide is the act of taking one's own life.<sup>5</sup> In contrast, a suicide attempt involves a grievous self-inflicted injury with a fatal intention, which is prevented by the intervention of some other person, or failure of the chosen suicide 'tool'.<sup>5</sup> Death is the usual result without accidental discovery.<sup>5</sup> The forms of suicidal behaviour include; suicide gesture and suicide gamble.<sup>5</sup> Suicide gesture refers to unusual nonfatal behaviour used to draw attention to oneself, while suicide gamble is calculated self-inflicted injury knowing that other persons would discover and save them in time.<sup>5</sup> Suicide and similar behaviours are used as indices of mental ill health in a community as they are mostly carried out by individuals with mental illnesses.<sup>5</sup>

A study of 100 cases of DSH in Kampala, Uganda reported a male preponderance of 63% with a male-to-female ratio of 1.7:1.<sup>6</sup> Globally, about 700,000 people attempt suicide annually. Within a year after the first attempt, about 1%–2% of them would have committed suicide, while another 1% would commit suicide in each of the following years.<sup>5,7</sup> Similarly, another study reported a 0.7% (66 times the annual risk of suicide in the general population) risk of suicide in the first year of follow-up following DSH, 1.7% risk after 5 years, 2.4% at 10 years and 3.0% at 15 years. The risk was far higher in men than in women.<sup>8</sup> Suicide risk increased further with multiple repeat episodes of DSH.<sup>9</sup> Researchers in Ife, Western Nigeria also reported a male preponderance among suicide cases with a male-to-female ratio of 3.6:1, and an overall suicide rate of 0.4/100,000 population. Most of the victims were between 20 and 30 years of age.<sup>10</sup> Globally, men commit suicide more commonly than women. However, women attempt suicide far more frequently than men.<sup>5</sup> Self-mutilation has been found most commonly among prisoners, institutionalised antisocial adolescents and autistic, schizophrenic or mentally retarded children.<sup>1,3,5</sup>

Menninger in 1935 opined that DSH could be a 'compromise formation to avert suicide'.<sup>1</sup> It may also be used to attain some secondary gain for example to evade military service in time of war, or for emotional blackmail. Self-mutilation has been reported to yield direct sadistic and masochistic gratification, and inflicts an injury that makes up for the inordinate gratification it provides. It also symbolises suicide or castration so as to prevent the real act. It may be inflicted by a variety of means such as immolation, jumps from heights, vehicular crashing, hunger strikes and self-mutilation, as in the index patient. Self-inflicted lacerations are the most common mode of presentation in most parts of the world,<sup>1,8</sup> but studies in Australia and the UK reported drug overdose as the most common presentation.<sup>1,2,11</sup> The 'tools' reportedly used

include razor blades, knives, fingernail fragments, bones from food and hair strands. Our patient used a broken louver blade.

Mental illnesses are the strongest predictors of suicide and other self-harmful behaviours, which occurs 20.4 times more frequently among people with major depression, as in our patient, than in the general population.<sup>5</sup> The conditions commonly seen in self-mutilators include personality disorders; psychotic disorders; delirium; major affective disorders; depersonalisation disorder; gender identity disorders; and various medical conditions. The most common diagnosis among this cohort of patients is borderline personality disorder.<sup>1,8,12</sup> The index patient was severely depressed. A study in Enugu, Nigeria reported an 18.6% prevalence of depressive symptoms among students who abused various substances.<sup>13</sup> Our patient has a history of cannabis abuse, coupled with the stress from broken relationships and lost years of schooling. Depression is a mental illness characterised by sadness, loss of interest, anxiety, fear, anger feelings of guilt or low self-worth, sleep disturbances, disturbed appetite, undue tiredness, confusion and poor concentration.<sup>14,15</sup> It occurs worldwide, with a prevalence ranging as high as 25% in certain populations.<sup>16</sup> It is often recurrent and commonly ends in suicide.<sup>14</sup> Depression inflicts an enormous burden on individuals, significantly impairing their ability to function and cope with daily life. Studies show that most adults who suffer from recurrent episodes of depression had at least one depressive episode as teenagers.<sup>17</sup> This suggests that intervention during adolescence is vital in reducing the resultant morbidity and mortality and averting the adverse continuing psychosocial and health problems associated with this condition in adults, such as DSH.<sup>15</sup> DSH may be the first and only indicator of mental illness.<sup>3</sup> Certain organic conditions such as chromosomal aberrations, genetic mutation, metabolic derangement or drug-induced changes may also underlie this behaviour.<sup>1</sup> However, the behaviour itself may be perpetuated by other stressful variables. Severe mutilation such as self-castration or eye removal is seen in psychotic and schizophrenic patients and is commonly linked to delusions or hallucinations.<sup>1</sup>

A multidisciplinary approach is needed when self-harm occurs and may involve surgical care as the case of multiple lacerations in the index patient. Preemptive intervention can foil the attempt in at-risk individuals. Injuries around the neck, including cut-throat injuries, are potentially disastrous because of the numerous vital structures in the neck, which when affected may result in severe haemorrhage, air embolism or respiratory obstruction and death. Therefore, early and adequate intervention is necessary to save the

patient.<sup>5</sup> The injuries could appear life-threatening and may actually be, thus presenting as emergencies. The injury severity is dependent on the pattern, site and depth, with the extent of associated injury to contiguous structures.

Clinical assessment of these patients starts with the ABCs of resuscitation that is, ensuring a patent airway, checking the patient's breathing and circulation as was done for our patient. Immediate resuscitation is instituted. The airway if at risk is secured and breathing ensured by the anaesthesiologist. In cut-throat injuries, a seemingly stable airway may rapidly become obstructed due to oedema. Airway maintenance by endotracheal intubation alone or with the aid of a fibre-optic laryngoscope may be required following a cut-throat injury with severe airway compromise. This obviates the need for tracheostomy.<sup>5</sup> A smooth anaesthesia is essential, as coughing and straining may cause venous congestion and worsening of bleeding.<sup>18</sup> The surgeon explores and repairs the injuries as soon as possible to restore structure and functions. Late presentation warrants debridement of nonviable tissues before surgical repair. However, this may result in substantial tissue loss making simple wound closure difficult. A local, regional or distant flap may be needed, especially for deep or complex injuries as in the neck injury in the index patient, or after excision of a persistent fistula in the neck.<sup>5</sup> Surgical exploration and repair is only a temporary measure and does not address the root cause of self-harm.<sup>12</sup> Baseline investigations to guide the patient's treatment include an urgent packed cell volume, urea and electrolyte levels. Angiography, endoscopy (including bronchoscopy and urethroscopy where applicable), CT scan and MRI illuminate the degree of injury. Whole-blood transfusion may be required depending on the extent of blood loss. Nutritional support is essential to improve the patient's well-being and enhance wound healing.

Mental health observation and care continue during and after surgical treatment. This is a necessary key to the long-term survival of these patients with such injuries sequel to deliberate self-harm. The causal mental disorders should be sought from proper clinical and mental state evaluation of individuals and subsequently treated.<sup>1,5</sup> In assessing these individuals, a good rapport must be built, and the psychiatric history taken in a direct manner, without ambiguity, and in a chronological order of events leading up to, during and after the act.<sup>1,3,5</sup> Risk assessment of the extent of danger to self and to others is crucial. Other important points in a psychiatric history are the onset of suicidal ideation, motives and extent of planning versus impulsivity in the patient, events that led to the act, patient's current problems, personality traits and

disorder, psychiatric history, previous self-harm, coping resources and supports and the patient's willingness to accept suitable help.<sup>5,11</sup> The patient should be medically stable before being transferred or referred for further mental health care.<sup>5</sup> The earlier the onset of therapy, the greater the chance of success.<sup>1</sup> Psychotherapy, behaviour therapy, chemotherapy (psychotropic medications) and electroconvulsive therapy are all treatment options.<sup>1</sup> The evidence for the best treatment seems to be lacking.<sup>19</sup> Tri-cyclic antidepressants may help, especially when self-mutilation coexists with obsessive-compulsive disorder.<sup>1</sup> Neuroleptics are useful in easing underlying psychoses while benzodiazepines relieve anxiety but may also disinhibit self-aggression.<sup>1</sup> Electroconvulsive therapy has been employed when both medication and psychotherapy fail although with limited success.<sup>1</sup> Psychosurgery has also been reported to mitigate self-mutilation.<sup>20</sup> Surgical extraction of the offending member such as teeth extraction has also been used to control self-biting in children.<sup>21</sup>

Following discharge, the patients require close monitoring to prevent another suicidal attempt that may be 'successful'.<sup>1,11</sup> All suicide attempts and expressions of suicidal intent, however, minor should be taken seriously irrespective of the frequency of such attempts and the presence of a suspected personality disorder.<sup>5</sup> Hence, the need for the surveillance of these individuals.

Suicidal individuals are preoccupied with death, withdrawn from friends and family, exhibit anhedonia (lack the sense of humour), dwell on past losses and express hopelessness and helplessness.<sup>5</sup> Caregivers and family members need to be counselled on this to nip a budding DSH or suicide attempt. Better community care, support groups, timely recognition and prompt referral to psychiatric services may help prevent self-harm.<sup>12</sup> In addition, involvement in sporting and other physical activities should be encouraged as it has been shown to improve self-esteem, reduce anxiety and stress and significantly reduce the risk of depression.<sup>15</sup>

## CONCLUSION

Suicide may or may not be preceded by an act of deliberate self-harm. Patients who have self-mutilated in the past remain at significant suicide risk. Identifying the risk factors coupled with prompt and decisive interventions can save lives. Early psychotherapy and treatment of underlying psychiatric conditions should be the mainstay of management after treating the injuries sustained, irrespective of their severity. A multidisciplinary approach remains the best line to tow.

### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

### Financial support and sponsorship

Nil.

### Conflicts of interest

There are no conflicts of interest.

### REFERENCES

- Feldman MD. The challenge of self-mutilation: A review. *Compr Psychiatry* 1988;29:252-69.
- Penrose-Wall J, Farris Z, Berkery P. *Self Harm: Australian Treatment Guide for Consumers and Carers*. Melbourne, Australia: The Royal Australian and New Zealand College of Psychiatrists, 2009; 1-17.
- Eke N. Genital self-mutilation: There is no method in this madness. *BJU Int* 2000;85:295-8.
- 1 Kings 18:25-28: The King James Bible. Lagos: Bible Society of Nigeria, 2004; 309.
- Adoga AA. Suicidal cut throat injuries: Management modalities. In: L'Abate L, editor. *Mental Illnesses – Understanding, Prediction and Control*. Rijeka, Croatia: In Tech, 2012; 423-36.
- Kinyanda E, Hjelmeland H, Musisi S. Deliberate self-harm as seen in Kampala, Uganda – A case-control study. *Soc Psychiatry Psychiatr Epidemiol* 2004;39:318-25.
- Asnis GM, Friedman TA, Sanderson WC, Kaplan ML, van Praag HM, Harkavy-Friedman JM, et al. Suicidal behaviors in adult psychiatric outpatients, I: Description and prevalence. *Am J Psychiatry* 1993;150:108-12.
- Hawton K, Zahl D, Weatherall R. Suicide following deliberate self-harm: Long-term follow-up of patients who presented to a general hospital. *Br J Psychiatry* 2003;182:537-42.
- Zahl DL, Hawton K. Repetition of deliberate self-harm and subsequent suicide risk: Long-term follow-up study of 11,583 patients. *Br J Psychiatry* 2004;185:70-5.
- Nwosu SO, Odesanmi WO. Pattern of suicides in ile-ife, Nigeria. *West Afr J Med* 2001;20:259-62.
- Hawton K. Deliberate self-harm. In: Hawton K, editor. *Psychiatric Problems in General Medicine*. Oxford: Elsevier, 2000; 38-42.
- O'Leary FM, Lo MC, Schreuder FB. "Cuts are costly": A review of deliberate self-harm admissions to a district general hospital plastic surgery department over a 12-month period. *J Plast Reconstr Aesthet Surg* 2014;67:e109-10.
- Igwe WC, Ojinnaka NC. Mental health of adolescents who abuse psychoactive substances in Enugu, Nigeria – A cross-sectional study. *Ital J Pediatr* 2010;36:53.
- World Health Organization. *Depression in Europe*; 2012. Available from: <http://www.euro.who.int/en/health-topics/noncommunicablediseases/pages/news/news/2012/10/depression-in-europe/depression-definition>. [Last accessed on 2015 Apr 25].
- Adeniyi AF, Okafor NC, Adeniyi CY. Depression and physical activity in a sample of Nigerian adolescents: Levels, relationships and predictors. *Child Adolesc Psychiatry Ment Health* 2011;5:16.
- Beck AT, Young JE. College blues. *Psychol Today* 1978;12:80-2.
- Aalto-Setälä T, Marttunen M, Tuulio-Henriksson A, Poikolainen K, Lönnqvist J. Depressive symptoms in adolescence as predictors of early adulthood depressive disorders and maladjustment. *Am J Psychiatry* 2002;159:1235-7.
- Jones GW. Anaesthesia for ear, nose and throat surgery. In: Aitkenhead AR, Rowbotham DJ, Smith G, editors. *Textbook of Anaesthesia*. 4th ed. Philadelphia: Elsevier Science Limited, 2002; 590-3.
- 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.
- Anandan S, Wigg CL, Thomas CR, Coffey B. Psychosurgery for self-injurious behavior in Tourette's disorder. *J Child Adolesc Psychopharmacol* 2004;14:531-8.
- Anderson LT, Ernst M. Self-injury in lesch-nyhan disease. *J Autism Dev Disord* 1994;24:67-81.