

CASE REPORT

AN INTRIGUING CASE OF HEROIN INDUCED DELUSION OF PARASITOSIS

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Abstract

Objective: The objective of this case report is to highlight a rare case of delusion of parasitosis induced by heroin abuse. **Methods:** We report a case of a 44-year-old heroin addict who had the false and unshakeable belief of being infested by the African botfly. As a result of his belief, he resorted to various methods to rid himself of the insect such as picking his skin with a knife and burning his skin with a lighter. **Result:** He was diagnosed to be suffering from heroin induced psychotic disorder and was successfully treated with the atypical antipsychotic olanzapine. **Conclusions:** Heroin; an opiate which is not commonly known to cause psychosis was seen to have been the cause of the delusion of parasitosis suffered by our patient. *ASEAN Journal of Psychiatry, Vol. 17 (1): January – June 2016: XX XX.*

Keywords: Heroin, Delusion of Parasitosis, Olanzapine

Introduction

Delusion of infestation or parasitosis is a rare delusional disorder which was first reported by Thibierge in 1894 [1]. Patients with this disorder will have the abnormal belief that they are infested with parasites [2]. It is frequently associated with tactile hallucination whereby patients may complain of the insect moving, stinging and biting beneath the skin [1]. Secondary causes such as substance abuse may cause delusion of parasitosis [2]. Stimulants such as amphetamines and cocaine have been known to cause psychosis [3]. However, the correlation between heroin abuse and psychosis has long been debated with studies showing inconsistent results [3, 4]. Herein, we report a rare case of a middle-age gentleman who developed delusion of parasitosis as a result of heroin abuse.

Case

Mr. A, a middle-age Malay gentleman presented to the psychiatric clinic with the

belief that insects were crawling under his skin. He believed that he was infected with the African Botfly. According to him, the infection took place over two occasions whereby the first was due to him sharing his pillow with an already infected friend. The second incident was when he accidentally stepped onto contaminated cow faeces with his wounded foot. Mr. A recounts that when he was first infected, he developed generalized rashes all over his body. Subsequently, the eggs hatched and became flies, which cohabitant in him. According to Mr. A, he could feel the flies' crawling beneath his skin. He believed that there was a queen fly living inside him, which attracted other smaller flies towards him and that his ears were filled with the African botflies. These symptoms went on for six months.

As a result of this, Mr. A resorted to different sort of methods to rid himself of the African Botfly. He tried spraying aerosol insecticides over his body, burning parts of his skin with a lighter as well as using a knife to pick his skin

in an attempt to remove the flies. He also tried inserting a self-made object laced with insecticides in his ears in an attempt to kill the flies. However, this only resulted in profuse bleeding in his ears. According to him, he could remove some of the flies and had kept the specimens of the dead flies in a container which was seen by some of his friends.

Mr. A had sought medical treatment from various clinics and despite their reassurances; he was convinced that he was infected with the African Botfly. Further history revealed Mr. A to be a heroin abuser for more than 30 years. Mr. A had stopped abusing heroin for about a year and has just started abusing heroin again, which coincided with the onset of his symptoms. He abused heroin via the inhalational method and has denied intravenous use. His last use of heroin was on the morning of his admission to the psychiatric ward. He did not experience any other forms or hallucinations or delusions nor did he have any depressive symptoms. There was no history of mental illness in the family. Mr. A failed his lower secondary assessment and has been an odd-job worker since. History from family members and friends did not corroborate with what was told by Mr. A.

There were multiple papular scaly lesions, scars, scabs and excoriations noted over his skin during examination. Mr. A was having tactile hallucination during the interview; he could feel and pin point where the insects were crawling beneath his skin. Mr. A was diagnosed to have heroin induced psychotic disorder while his skin lesions were treated as papular eczema. He was started on tablet olanzapine 5 milligrams per day, which saw his symptoms, improve largely. He was discharged home well after nine days in the ward.

During his follow up though, he complained of recurring symptoms. Mr. A was abusing heroin again while being non-compliant to his medications. Psychoeducation regarding the need to abstain from heroin as well as compliance to medication was reinforced. After a few more visits to the clinic, he subsequently defaulted his follow-up for a duration of 10 months. Contact tracing was done and during his latest clinic follow-up in

August 2015, Mr. A was noted to be free of heroin and psychotic symptoms.

Discussion

Delusion of parasitosis as mentioned is rare and its exact prevalence is not known [5]. It most commonly occurs in patients over the age of 50 years and in those from a lower education and socioeconomic background [2]. The exact etiology and pathophysiology of delusion of parasitosis remained unknown [5]. However, a decrease in the functioning of the striatal dopamine transporter (DAT) has been hypothesized as a possible etiology for delusion of parasitosis [6].

Delusion of parasitosis can be caused by substance use [7]. Formication, Formication, a form of tactile hallucination whereby individuals experience the sensation of insects moving or crawling under the skin is commonly seen in cocaine and amphetamine abusers [8]. However, the majority of them are able to recognize formication as a form of hallucination and only a small proportion will develop delusion of parasitosis [7]. Cocaine and amphetamines which are DAT inhibitors may induce delusion of parasitosis by reducing the functioning of striatal dopamine transporter [6].

As compared with cocaine and amphetamines, heroin causing tactile hallucinations and delusions is extremely rare. In the case of Mr. A, he developed delusion of parasitosis after abusing heroin. Literature review on heroin use causing delusions of parasitosis has been limited. Mowla (2009) reported a case of delusion of parasitosis following heroin withdrawal [9].

Mr. A presented with the classical symptoms of delusion of parasitosis whereby he had the false and unshakeable belief of being infested by the African botfly. He was adamant he was infected by the African botfly after reading about it on the Internet. There were multiple scars, scab and excoriation marks all over his body, which appeared to be self-inflicted in an attempt to remove the insects. Mr. A had also stored the apparent dead insects dug from under his skin in a container as evidence, which is also known as the 'match-box sign'

seen in people suffering from delusion of parasitosis [6].

Those suffering from delusion of parasitosis often seeks medical advice from dermatologists and physicians, a multidisciplinary approached is thus warranted [6]. This same approach was applied for Mr. A for his skin condition. As Mr. A's delusion was secondary to heroin abuse, his heroin addiction was addressed accordingly.

Pimozide remains the drug of choice for the treatment of delusion of parasitosis. However, usage of pimozide requires careful monitoring due to its serious adverse effects [10]. Mr. A was successfully treated with olanzapine, an atypical antipsychotic which has also been shown to be effective in treating delusions of parasitosis [11]. Patients suffering from delusion of parasitosis are extremely distress by their symptoms which in turn may lead to secondary depression [2]. A case of a patient with delusion of parasitosis committing suicide has been reported [12].

Delusion of parasitosis remains a difficult condition to treat due to patients' poor insight and compliance to medication [13]. With future advances in the research on delusion of parasitosis, it is with hope that more light can be shed on this disorder.

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