

Complications of Intravenous Drug Abuse of Pentozacine Causing Deformity, Extensive Ulceration and Gangrene of the Left Forearm and the Hand - A Case Report

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Abstract: A 34 year old male nursing officer presented to Ela Momorial Medical Centre, Ilorin with 6-month history of deformity of left forearm/hand with scarring and extensive ulceration/gangrene as a result of drug abuse of pentozacine Patient claimed he had hemorrhoids for which he started to give himself intravenous pentozacine. The repeated infections of this drug, patient said the area became swollen and later ulcerated. The ulceration became extensive and later developed gangrene of two of the fingers which fell off. The left forearm became deformed with the extensive ulceration and contracture. The ulcers did not heal and there was gangrene of the remaining fingers hence below elbow amputation was done. He made uneventful recovery and was discharged home. In conclusion, the issue of drug abuse in hospitals in Nigeria should not be taken lightly. Each hospital in Nigeria should set up sub committee to study the issue of drug abuse amongst hospital workers with the hope of assessing the seriousness of the problem and find appropriate solutions to assist these unfortunate members of staff in Nigerian health institutions.

Key words: Complications • drug abuse • pentozacine • solutions

INTRODUCTION

Illicit drug abuse causes much morbidity and mortality, yet little is known about physician's screening and intervention practices regarding drug abuse [1].

Often the cause of dependence is iatrogenic. With chronic pain being a significant risk factor for drug dependence, increased caution by the prescribing physicians is advisable while treating such patients using opioid analgesics [1]. A case is reported of patient who was a nursing staff of a hospital in Nigeria with haemorrhoids who gave himself intravenous pentozacine as a strong analgesia for his pain. The repeated use of this drug led of gangrene of the fingers of the left hand, ulceration, scarring and deformity of the left forearm as complications. It is said that retaining the limb may be worse than having no limb at all, hence the indications for amputation in this patient was dangerous and damn- nuisance [2].

This case report is meant to highlight the serious morbidity and mortality that can occur as a result of intravenous drug abuse by hospital staff which requires

serious attention with the hope that such members of staff can be identified and assisted promptly.

CASE REPORT

A 34 year old male nursing officer (VAO) presented to Ela Momorial Medical Centre, Ilorin with six month history of deformed left hand/forearm and extensive septic ulcer on the dorsum of the left Hand and gangrene of the remaining fingers. There was scarring on the right forearm. The patient claimed that he had painful hemorrhoids for which he started to give himself intravenous injections of pentozacine on the dorsum of the wrist. He was married with two children. The reason for his addiction to pentozacine was not known.

On examination, the radial pulse was not palpable. There was extensive ulcerations on the dorsum of the left hand, gangrene of the remaining fingers, extensive ulceration and deformity of the distal left forearm. There were lots of necrotic, dead tissues at the base of the ulcers which extended to the whole of the dorsum of the left hand. There was absence of three fingers with the

remaining two fingers showing evidence of gangrene. The left hand was grossly deformed with the palmar surface turning posteriorly with severe contracture and a lot of scarring.

There was scarring also on the right forearm which showed that he had injected himself on the right forearm also. An impression of deformed left forearm, extensive ulcers on the dorsum of the hand and gangrene of the remaining fingers from intravenous injection of pentozacine was made.

The packed cell volume was 25% while the white cell count was 2.5×10^9 with neutrophils of 58% and lymphocytes of 42%. The Human Immunodeficiency Virus (HIV) screening was negative. In view of the gangrenous fingers, gross deformity and extensive necrotic ulcers on the dorsum of the distal left forearm and the hand, below elbow amputation was done. The complications of infections, ulceration, deformity and gangrene resulted from the repeated intravenous injections of pentozacine.

He made uneventful postoperative recovery. The patient and his parents that came along with him were counselled as to the dangers of drug abuse. He was discharged home, to be followed up in the out patient department of the hospital and was referred to a behavioral scientist for appropriate counselling and management.

DISCUSSIONS

Acute poisoning is a common and urgent medical problem and in the UK, the number of patients admitted for this reason has risen dramatically over the last 30 years particularly in young adults in whom acute self poisoning has become a regular pattern of social behaviour in response to stress [2]. The patient in our case report, a nursing officer, claimed he had haemorrhoids instead of going for surgical treatment for some reasons he started to inject himself intravenously with pentozacine through the dorsum of the left hand which became infected, ulcerated, with gangrene of the fingers, a lot of scarring which led to contracture and deformity of the left hand and forearm.

Drug abuse and dependence is common in patients with chronic pain. Of concern are the opioid analgesics prescribed commonly and its availability over the counter [3]. Our patient had pain from haemorrhoids for which he started to inject himself with pentozacine. The abuse of this drug led to complications of infections, gangrene, ulceration, contracture and serious deformity resulting in below elbow amputation was done.

Illicit drug use is an important public health problem with broad social costs [4]. The patient in this case report, a health worker had access to pentozacine hence abused the drug. This situation caused him, his family and the hospital where he worked a lot of financial responsibilities because of frequent dressings, antibiotic treatment, the cost of amputation with its social stigma in Nigeria and absence from work, all these cannot be financially quantifiable.

Drug abuse is an important modern cause of gangrene [5]. Inadvertent arterial injection of drugs has become common in many countries with significant numbers of drug addicts. Usually the femoral artery in the groin is involved and presentation is with pain and mottling distally in the leg [5]. The patient in this case report used the veins at the back of the left wrist which led to gangrene of some of the fingers and extensive ulcers, contracture and deformity. This case report confirmed that the drug addicts in this part of the world are not as sophisticated as their colleagues in the western world who use arterial injections. It should be remembered that many of these patients carry the Human Immunodeficiency Virus (HIV) or have frank Acquired Immunodeficiency Syndrome (AIDS) [5]. This was the reason why the patient was screened for HIV, he was negative. Members of hospital staff periodically should have workshops on the dangers of drug abuse and the serious complications that can follow as it was in this case report.

A study carried out in UK demonstrated that over one anaesthetist per month has presented with significant alcohol or drug misuse in the UK and Ireland over the last 10 years [6]. It is important that those with management responsibilities for departments of anaesthesia are aware that such problems exist and are likely to have impact on the professional ability and health of the affected individual [6]. A case is made for increasing awareness in this sensitive subject to enable early recognition and treatment of an anaesthetist who is misusing alcohol and drugs since intervention can be effective [6]. In this case report, the profession involved was nursing. If not for the complications of the intravenous injections, the patient may never be found out to be a drug addict.

Drug abuse is an important problem in the workplace. Seventy percent of current illegal drug users are employed and approximately 7% of Americans employed in full-time work report heavy drinking. Drug-using employees are twice as likely to request time off and 3-6 times more likely to be involved in a workplace accident [7]. Our patient in this case report was gainfully employed and had

access to pentozacine which he abused. In African setting, the issue of drug abuse has not been taken seriously. There could have been several members of staff amongst doctors and nurses who are abusing various types of drugs, hence the need for hospital managements to be aware of this problem. Employee assistance programmes and drug treatment hold great promise for coping with these problematic substances [7]. Each hospital in Nigeria should set up a small committee to study the problem of drug abuse in the hospital with the hope of identifying the problems and finding appropriate solutions.

The issue of intravenous drug abuse amongst hospital staff in the Nigerian society leading to unnecessary complications such as gangrene with subsequent amputation is poorly attend to. Hospitals in Nigeria should be aware that some of their staff mostly medical and nursing staff could be involved in intravenous drug abuse as a result of their contact with such drugs.

In conclusion, in view of the seriousness of intravenous drug abuse with the associated complications that could follow, the management of each hospital should set up sub-committee to identify staff that abuse drugs and mount a programme to assist such members of staff. Drug abuse and its complications should not be regarded as foreign to the tropics especially amongst health workers who require urgent help before complications such as infections, ulcerations, contracture and gangrene set in which could lead to high mortality and morbidity.

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