Journal of Psychiatry and Psychiatric Disorders doi: 10.26502/jppd.2572-519X0055

Case Report Volume 2, Issue 6

Amitryptilline Induced Intestinal Obstruction (Ogilvie Syndrome) In A 70 Year Old: Medical And Legal Issues: A Case Report

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Received: 05 November 2018; **Accepted:** 12 November 2018; **Published:** 11December 2018

Abstract

Introduction: Anticholinergic side-effects of Tricyclic antidepressants, such as blurring of vision, dryness of the mouth, constipation and retention of urine are common are well reported. Fewer studies report that acute abdomen due to the use of antidepressants is rare. Intestinal Obstruction describes a condition in which there is failure of onward propulsion of intestinal contents. It can be non-mechanical (adynamic, paretic ileus), which involves conservative management and no surgery is required. This report support the view that intestinal obstruction can be a complication of the use of Tricyclic antidepressants.

Case presentation: An 70-year old retired male civil servant, known Hypertensive, earlier seen and commenced on Amitryptilline for peripheral neuropathy by a mental health physician, presented to the Emergency Unit of a private facility in Port Harcourt, South South Nigeria, in June, 2018, with history of recurrent vomiting, abdominal pain, abdominal distention, 4 days after commencement of Tablet Amitriptilline. Was consequently admitted for clinical and radiological evaluation. Laboratory and radiological investigations did not reveal any features of intestinal obstruction. However patient was placed on nil per oral after Naso-Gastric Tube was passed. Patient emptied bowel on the 3rd day but because of missed diagnosis, a cascade of clinical events leading to dehydration, organ failure, hypovolemic shock and death on the 4th day. The medical and forensic issues are examined in this report.

Conclusions: Understanding the unusual risk of intestinal obstruction among patients on Amitryptilline, adequacy of record keeping, strict adherence to practice guidelines and collaboration between the surgical and psychiatric teams, appears to be the key components in avoiding the medical and legal consequences of such missed diagnosis.

Keywords: Amitriptilline; Intestinal obstruction; Ogilvie syndrome; Missed Diagnosis; Medical; Legal

1. Introduction

Acute colonic pseudo-obstruction or Ogilvie syndrome is characterized by massive dilatation of the colon. It can occur due to various medical and surgical conditions, and as a side-effect of antidepressants [1, 2]. Drug-induced intestinal obstruction is uncommon but nevertheless important since failure to recognize ileus, for example, can lead to medical complications with increased risk of mortality [3]. In addition, a wider knowledge of these problems could, if coupled with appropriate action, reduce the incidence of intestinal obstruction [3]. Many (if not all) tricyclic antidepressants because of their anticholinergic effects which can cause severe constipation, can simulate intestinal obstruction [3]. Some scholars prescribe that because of the rare association between amitryptilline use and intestinal obstruction, it should be reported [4]. Tricyclic antidepressants are a class of drugs commonly used for the treatment of depression, anxiety and Peripheral Neuropathy [5].

Previous case reported cases of intestinal pseudo obstruction in 60 and 65 year olds and another study on the Pattern of Intestinal Obstruction in Nigeria, reported a mean age of occurrence of 39 years and a preponderance of male gender in treated cases [1, 6]. Adhesive obstruction was found to be the most cause in the report with a prevalence of 44% [6]. The treatment guidelines of common medical conditions in Nigeria, identified the causes of non-mechanical obstruction and that in this type of obstruction, management involves treating conservatively the underlying causes and surgery is not required [7]. There is also no obvious colonic disease (colonic pseudo-obstruction or Ogilvie's syndrome) and even though the cause for this altered motility is unclear, abnormalities of autonomic nervous system of the intestinal tract and myenteric plexus, electrolyte abnormalities, metabolic causes like hypo/hyperthyroidism, drug use like anti-diarrhoeals, antipsychotics and anti-depressants, inflammatory causes like inflammatory bowel disease, infections have been implicated [8]. There are many modalities of treatment of this condition ranging from medical to surgical and requires a multidisciplinary approach including the colorectal or general surgeon, physician, psychiatrist, psychologist and a stoma care specialist [8].

Complication of Intestinal Obstruction include fluid imbalance which can result from hypovolemia and misdistribution and the common cause is dehydration, which primarily entails loss of plasma rather than whole blood [9]. The consequences of hypovolemia include reduction in circulating blood volume, lower venous return and, in profound cases, arterial hypotension and myocardial failure, producing acidosis and precipitate multi-organ failure [9]. The deleterious effects of hypotension and hypovolemic shock, depending upon their duration and severity, may be irreversible, leading to death, despite restoration of normovolemia by fluid administration [9]. Medical malpractice contributing to hypovolemia, dehydration blockage, perforation and death, often involves misdiagnosis [10]. Negligence and malpractice cases are usually faced by doctors and healthcare providers who violate their duty to their patients, which makes them liable [10]. The rare complication, missed diagnosis, medical and possible legal issues are the focus of this report.

2. Case presentation

An 70-year old retired male civil servant, known Hypertensive, earlier seen and commenced on Amitryptilline for peripheral neuropathy by a mental health physician, presented to the Emergency Unit of a private facility in Port Harcourt, South South Nigeria, in June, 2018, with history of recurrent vomiting, abdominal pain, constipation, abdominal distention, and non-passage of faeces (obstipation), 4 days after commencement of Tablet Amitriptilline. He was seen as an emergency and evaluated by a visiting general surgeon. Physical examination revealed mild tachycardia (105 beats per minute), a tense abdomen and distended bladder. He was admitted to the hospital with a provisional diagnosis of Intestinal Obstruction. History of Trycyclic Antidepressant use was never established. He was catheterized. On examination, bowel sounds were absent. The patient was investigated and an erect plain radiograph of the abdomen confirmed the diagnosis of distal bowel obstruction without any evidence of perforation. Patient was managed conservatively with decompression and his condition improved on day 3, with passage of large volumes of faeces but the managing surgical team refused to introduce graded oral sips or let him go, claiming they were preparing for surgery, despite all pointers to a pseudo intestinal obstruction and of course without adherence to treatment guidelines. By the fourth day of being on nil per oral, patient went into fluid imbalance and dehydration, myocardial failure, hypovolemic shock, acidosis and multi-organ failure, with marked effects on the vital signs. Attempts at rehydration to restore normovolemia were futile as the deleterious effects were irreversible because of age and medical co-morbidities, leading to death. The family were not ready for any form of legal redress or compensation.

3. Discussion

This case reported agrees with the fact that intestinal pseudo-obstruction denotes a syndrome characterized by a clinical picture suggestive of mechanical obstruction in the absence of any demonstrable evidence of such obstruction in the intestine but mimics it in presentation [1, 11, 12]. The aetiology of this reported case of Intestinal Obstruction is in keeping with the myriad of associated causes which have been documented and reviewed which includes drugs like Tricyclics [1, 3, 7, 12]. After a mechanical cause of obstruction has been excluded by barium enema, the treatment is conservative, with intravenous fluids, nasogastric suction and colonic decompression [12]. Partial Intestinal obstruction often improves after a few days as in this case and the Naso gastric tube can be removed [13]. However the failure of the managing team to commence graded oral sips as is obtainable in global best practices and their insistence on doing surgery even after patient had emptied bowel for about 4 times with negative findings on laboratory and radiological investigations, without adequate hydration lead to dehydration, hypovolemic shock, multi organ failure and death, because of the irreversible deleterious effects despite the attempts at rehydration [9, 12, 13].

As clearly shown in this case, as in previous reports, the medical issues involved results from failure to recognize ileus, which leads to complications of fluid imbalance, hypovolemia, dehydration, profound arterial hypotension, myocardial failure as a result of increased myocardial oxygen demand, decreased tissue perfusion, multi organ failure, shock and and increases mortality [3, 9].

Concerning the possible associated legal issues, the most frequent reason for litigation is failure to diagnose and institute appropriate treatment in a timely and appropriate manner [14]. In an analyses of reported cases that faced trial, 50% of decided cases favored the physician, 25% favored the plaintiff (patient), while 25% was settled out of court [14]. In 17% of patient cases, there was delay in diagnosis or missed diagnosis [14]. Health care providers should be reminded that violation of their duty to their patients or Medical Negligence, makes them more liable for litigation [10, 14]. Medical Negligence is a breach of the duty of care by a medical practitioner, which results in damage to the patient [15]. It may also lead to Vicarious or primary liability of the Hospital [15, 16]. Medical Negligence may be a reason why patients may receive sub-standard care from the health provider [15-17]. This thus leads to litigation and it is also noteworthy that successful civil actions, result in monetary compensation to the injured party or dependents [17].

Tricyclic Antidepressants have anti-cholinergic properties which result in constipation in up to 60% of treated patients leading to intestinal obstruction [3, 18]. It is important to educate the elderly as well as patients in other age groups about the importance of diet and fluid intake to overcome constipation while on the drug Amitryptilline and other Tricyclic antidepressants. Newer, non-*tricyclic antidepressants* are often claimed to be as effective as but safer *as tricyclic antidepressants* because they do not have anticholinergic side-effects and hence drug of choice in elderly people [19].

It is also important to note that recognition of the condition at an early stage and awareness of such complications and the need for conservative management will be quite helpful, whereas preoccupation with the diagnosis of mechanical obstruction or probable malignancy, will lead to insistence on surgical management, and some untoward consequences.

4. Conclusions

Intestinal Obstruction is a rare complication of Tricyclic Antidepressants and is more likely to ensue if the patient is elderly and there is a concomitant medical and Neurological disease. High index of suspicion and good drug history is required to mitigate the avoidable medical and legal consequences.

5. Recommendations

Good record keeping and adherence to established practice guidelines on intestinal obstruction are important as negligence cases may take years to resolve. Also due to greater availability of practice guidelines, health practitioners should always consider the implications and justifications for deviations from accepted practices should the patient suffer harm. Collaboration in the multidisciplinary team which consists of general surgeon, physician, psychiatrist, psychologist and stoma care specialist is therefore highly recommended.

6. Consent

Written informed consent was obtained from the patient's family for publication of this case report and any accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

7. Competing Interests

The author declare that there is no competing interests.

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Citation: Nwaopara A Uche. Amitryptilline Induced Intestinal Obstruction (Ogilvie Syndrome) In A 70 Year Old: Medical And Legal Issues: A Case Report. Journal of Psychiatry and Psychiatric Disorders 2 (2018): 183-188.