An Adolescent with Munchausen’s Syndrome: A Case Report

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Abstract

Munchausen syndrome is factitious disorders with unknown etiology. It is characterized by fabrication of signs or symptoms of the disease, as well as alteration of laboratory investigations. People with this syndrome pretend that they are sick and tend to seek treatment at different hospitals. We report this 15-year-old adolescent Saudi girl who came to endocrinology clinic with recurrent hypoglycemic attacks for the last 6 months. Laboratory showed exogenous insulin administration by the patient herself. Munchausen syndrome was diagnosed and patient was referred to psychiatry for follow up.

Keywords: Munchausen; Adolescent; Life-threatening; Self-harm.

Introduction

Hypoglycemia is a life-threatening condition that can lead to serious complications including coma and death. Intentionally self-injected insulin for a medically free patient is considered as self-harm and physician must search for the possible causes. Exogenous insulin administration by the patient him/herself labeled as Munchausen syndrome. A factitious disorder is characterized by pretending sickness and fabrication of signs or symptoms of a disease [1]. Munchausen’s Syndrome was named in 1951 after Baron Munchausen described the syndrome as a condition in which the patient repeatedly seeks medical treatment for recurrent illness [2].

Patients with this syndrome usually pretend to be sick and they are insisting on painful procedures, surgeries, and other medical interventions. In this case report, we present a rare case of Munchausen syndrome in a Saudi adolescent with recurrent hypoglycemic attacks.
**Case presentation**

A 15-year-old adolescent Saudi young lady who is not known to have any medical illness presented to the endocrine clinic with recurrent attacks of hypoglycemia that started six months ago. Hypoglycemia was on and off with no clear pattern. Sometimes hypoglycemia may reach 4 or 5 times per day and sometimes it happens once per week or once every other day.

All attacks were not related to meals or any physical activity and all attacks were associated with excessive sweating, palpitation, and tremors. There was no history of seizures, coma, headache, or confusion. No history of skin discoloration, weight loss, or abdominal pain. No history of fatigue, muscle weakness, difficulty sleeping, or increased sensitivity to heat. No history of head injury, brain surgery, radiation exposure to head or neck. No family history of the same condition in the family and no history of drug ingestion. No history of recent infections or sepsis. No history of changes in bowel habit, nausea, vomiting, tremor, change in appetite. No history of change in urine color, amount, or smell.

Past medical history revealed well, a healthy and active adolescent with unremarkable medical and surgical sickness. She does not know to have any allergies and she does not take any medications or any supplements at home. She has well, a balanced diet with 3 meals and 3 snacks in between. She has a good appetite and does not focus on her weight and does not consider a picky eater. No history of anorexia nervosa. There was no consanguinity between her parents. Her father is working at a toxicology center and her mother is a housewife. She has only one younger brother who has Diabetes Mellitus type 1 and taking insulin injections from her mother and sister. Her family has good socioeconomic status. She has excellent school performance (10th grade), intelligent, the first in her class. Has lots of friends at school. No history of any depression, major trauma, family death or child abuse, emotional instability, personality disorder, episodes of self-harm, or suicide attempts.

Her examination revealed well healthy adolescent with no pallor or jaundice, no dysmorphic, and not having hyperpigmentation in her body. She was afebrile and hemodynamically stable. Her growth parameters showed weight: 55 kg (above 50 centile) and Height: 161 cm (just below 50 centile). All systematic examinations revealed a normal healthy child. Her investigation during fasting-induced hypoglycemia showed blood glucose of 2 mmol/L. Results of which are listed in Table 1.

Computer tomography also was done for the abdomen and pancreas and showed normal internal organs with no organomegaly or a pancreatic tumor.

Based on her clinical presentation and the laboratory results as she has a high insulin level with low connecting peptide (C-peptide) which indicates exogenous insulin administration. The patient was diagnosed with hyperinsulinism secondary to exogenous insulin administration.
CBC | Hb: 14, WBC: 4, Platelet: 233(normal)  
CRP | Less than 3  
U&E | Na: 140, K: 4.7  
| CL: 104, urea: 3.2, creat: 32  
LFT | ALP: 98, AST: 24, ALT: 17, GGT: 24, Total bilirubin: 7  
Blood glucose | 2 mmol/L  
Growth Hormone | 15.6 ng/ml  
Cortisol | 999.8 in(above 500)  
Insulin | 111(2-37) high  
C-peptide | 0.16(0.16-1.7)  
Ammonia | 40  
Lactate | 1.5  
Urine ketone | Nil  
VBG | PH: 7.34, CO₂: 42  
| HCO₃: 22, BE: -1  
ACTH | Normal  
FFA | Normal

Table 1: Showed laboratory results during the fasting challenge.

Discussion

Glucose is very important for the majority of body organs in the production of energy, especially the brain. Any defect in the hemostasis of the blood glucose in the body can affect the normal physiology of the body and the process of energy production especially the infant and younger children. The reason behind that is a relatively higher proportion of brain mass to body size, which increase the risk of life-threatening condition from hypoglycemia [6]. Hypoglycemia is defined in children and adolescents, serum glucose level below 50 mg/dL or 2.7 mmol/L [6]. There are multiple causes of hypoglycemia including metabolic causes, endocrine causes, drug ingestion, systematic illnesses, malignancy, psychological causes, and others. In the reported case, the onset of hypoglycemia started when she was 15 years of age. There was no history of consanguinity, no history of similar complaints in the family, and no organomegaly was noted during the examination. Laboratory results did not show any metabolic acidosis, high ammonia, or increase in inflammatory markers. Based on that, our differential was focusing on endocrine causes. It is important to differentiate whether hypoglycemia is associated with ketosis or acidosis. In the reported patient, hypoglycemia was not associated with ketosis or acidosis (no urine ketones, blood gas was normal) so the differential was focusing on insulin-mediated factors. In a normal patient with hypoglycemia during the hypoglycemic attack, the laboratory will show low serum insulin and low connecting peptide(C-peptide) levels. The most alarming investigation’s result is high serum insulin...
during the hypoglycemic attack with low-normal connecting peptide (C-peptide) which confirm exogenous insulin administration. Exogenous insulin administration by the patient him/herself labeled as Munchausen syndrome. While if it is done by a relative or setter, we label it as Munchausen syndrome by proxy. In this case report, the exogenous insulin was injected by the patient herself. So, the final diagnosis was Munchausen syndrome. Munchausen syndrome and Munchausen syndrome by proxy are factitious disorders characterized by the fabrication of signs or symptoms of a disease, as well as alteration of laboratory investigations. People with this syndrome pretend that they are sick and tend to seek treatment at different hospitals (1). Although, The etiology of the disorder is unknown. Certain psychosocial factors seem to affect those with the diagnosis, including a traumatic childhood, experiencing the death of a loved one at a young age, and abandonment [8].

A retrospective study was done in Riyadh, Saudi Arabia. They reviewed patients’ electronic health records from January 2015 to December 2020. Results showed seven patients were included(71%) were males (29%) were females. 43% were 21 years old and younger, 14% were 38 years old, and 43% were 56 years old and older. 43% were married and 57% were single. Counseling and psychotherapy were only offered to 14% of them. A literature review of factitious hypoglycemia was published in 2020 in the United Kingdom. The search was conducted using the PubMed database and identified 23 case reports of 31 patients aged 18 and above with insulin-induced factitious hypoglycemia. Results showed that the factitious hypoglycemia is commonly reported in middle-aged females, in a medical profession, with a past medical history of diabetes mellitus and psychiatric illness [4]. Another study was published by Cambridge University, aimed to determine the common characteristics of perpetrators among case reports labeled as Munchausen syndrome by proxy, published in PubMed literature in the past 15 years. Data were extracted from 108 articles, including 81 case reports. Results showed almost all perpetrators were female 91%. 28% had a perpetrator with psychiatric diagnosis: factitious disorder imposed on self-10%, depression 9%, and personality disorders 7%. In 36% there was familial conflict or abuse [7]. Diagnosis of Munchausen syndrome falls within the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) which requires certain criteria including evidence of intentionally representing a psychiatric condition with the exclusion of other psychiatric conditions, such as schizophrenia and delusional disorder. Confrontation usually ends in denial. Instead, the physician must take an empathetic approach in which the patient is approached in a supportive manner. It is crucial to involve psychiatry to fully assess for any other psychiatric illnesses that may be present [8].

The standard therapy for patients with Munchausen is psychotherapy, though most patients refuse. The patient doesn’t need to admit to their factitious disorder, and in fact, most patients rarely do [8]. In the reported case, after counseling the child and her family and involving the psychiatrist, the girl admitted that she was seeking her parent’s attention since they were focusing on her younger brother and his medical condition.
(Type 1 Diabetes Mellitus). She tried to draw attention to herself by being excellent in her school. She thought if she became ill like her brother, she would get the attention that she wants.

This reported case of exogenous insulin administration secondary to Munchausen syndrome is considered one of the few reported cases in Saudi Arabia. It might be due to the rarity of occurrence or could be underdiagnosis in such cases. Physicians always must improve their clinical since to identify such a problem to prevent future complications for the children and their families.

**Conclusion**

Recurrent attacks of hypoglycemia in adolescence or young adult should always raise suspicion of fictitious causes. Including, ingestion of medication that leads to hypoglycemia or insulin injection. High suspicion index of such causes in treating physicians will lead to early diagnosis and prevent future complications of hypoglycemia including coma or even death.

**References**