Case report / Olgu sunumu

Recurrent diabetic ketoacidosis-like symptoms and factitious hyperglycemia as a Munchausen syndrome in diabetes mellitus type 1: a case report

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ABSTRACT
Factitious disorder is a psychologic problem which may cause symptoms of a disease which is non-compliance with patient physical exam. Some cases of brittle diabetes are because of underlying psychologic disorder such as factitious disorder or Munchausen syndrome. In this paper a 17-years old female is presented with factitious hyperglycemia and DKA-like symptoms such as nausea, vomiting and severe abdominal pain. Finally with subtle monitoring it was found that the cause of patient’s hyperglycemia despite high dose insulin prescription was impregnating her finger into the date palm in the context of the factitious disorder. The patient had different deceptive behaviors depending on the method of treatment. She used every trick to mislead the medical team. In Munchausen syndrome, patient is unaware of his problem that mimic an episode of diabetic ketoacidosis. Thus psychotherapy is the main treatment of this factitious hyperglycemia. The main aim of this report is consideration of factitious hyperglycemia in patients with brittle diabetes mellitus. (Anatolian Journal of Psychiatry 2017; 18(Suppl.1):29-31)

Keyword: brittle diabetes mellitus, factitious hyperglycemia, Munchausen’s syndrome

INTRODUCTION
Factitious disorder (FD) is diagnosed by pretending to be sick with no abnormal examination or paraclinic study in the presence of psychiatric symptoms which also is named Munchausen’s syndrome. The prevalence of the disease among hospitalized patients is approximately 9%. Patients with Munchausen’s syndrome are unaware of their motivation.1 These patients have narcissistic and probable borderline personality disorder. More than 80 percent of patients are diagnosed with self-regulation disorder which it is varying degrees conform with different degrees of FD prognosis.2 Brittle diabetes refers to patients with glycemic instability

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and frequent hospitalizations. Patients with brittle diabetes have episodes of severe hypoglycemia or hyperglycemia in type I diabetes despite multiple training in order to control the disease.

**CASE**

A 17-year-old girl with type 1 diabetes mellitus was referred to endocrinology clinic with uncontrolled diabetes, dizziness, abdominal pain, nausea and vomiting. She was treated with multiple daily insulin (MDI regimen) during 4 years but in last 8 months her SMBG (self-monitoring of blood glucose) ranges were out of control and has BS (blood glucose) different ranges of 40-560mg/dl, normal CBC-Diff (complete blood count and differential) and creatinine. She was admitted to control her brittle diabetes with insulin infusion but even with high dose insulin infusion up to 20 IU/hr mostly her BS were above 400mg/dl. The notable point was that BS level was measured by laboratory was lower than glucometer. She also complained of severe abdominal pain and nausea during admission that mimics diabetic ketoacidosis in the presence of hyperglycemia despite the lack of ketonuria and metabolic acidosis. She is educated elite school in the third grade of high school and has a high IQ. Her sister is suffering from multiple sclerosis. This teen girl is the third child of a family of five. She is admitted to hospital several times over the last year to control high level of BS. Despite the negative antibodies, because of high suspicious to anti-insulin antibodies Rituximab, azathioprine and prednisolone were prescribed, but these drugs were discontinued due to lack of acceptable BS control. Due to persistent dizziness according neurological consult brain CT-scan, brain MRI, audiometry was performed but all of them were normal. Recognizing positional vertigo as a most probable diagnosis clinically, Betahistine and Dimenhydrinate was prescribed for her. Due to severe abdominal pain, nausea and vomiting 5 minutes after eating, and severe abdominal tenderness in deep abdominal palpation without rebound tenderness or guarding, numerous surgery and gastrointestinal consultations were performed after ruling out diabetic ketoacidosis by negative ketone in dipstick with normal blood gas. Abdominal ultrasonography and CT-scan, upper GI Endoscopy and colonoscopy, colon transit study were normal. Amylase and Lipase were normal. All liver function and renal function and electrolytes and CBC were normal. In psychiatric examination, chronological age was appropriate with apparent age. She has good cooperation in response to questions but was unable to sit because of abdominal pain. Abdominal pain were reduced by distract her attention and was largely due to abdominal strain during examination. MSE (Mental Status Examination) was not normal. Her mood was depressive and behavior was aggressive with those around her and if we do not pay attention to the patient’s abdomen pain, she was violently insisting on discharge from the hospital. She has no psychosomatic symptom. Mild depressive symptoms and borderline features was seen in her Rorschach test. Finally because of high suspicion to associated psychiatric problems, to find the cause of high blood sugar despite high insulin dose prescription, patient behaviors were monitored insensible. We found that she impregnated her finger to the date palm a few minutes before blood glucose check with glucometer devices at times when she is alone in the room. The patient had different deceptive behaviors depending on the method of treatment. But the answer to the question of why the patient was not suffering from hypoglycemia despite high doses of insulin injection is, when insulin infusion by pomp was started to control high BS, intravenous cannula secretly separated from insulin infusion set and insulin thrown away. Also she secretly eats fruit juice and jam to prevent hypoglycemic attack for high-dose insulin injection. She took the water into the insulin pen instead of insulin and injected so that the nurses do not noticed. Frauds were changed by switching the treatment methods. HbA1c was requested last week of hospitalization which show 8%. Although all BS was above 300 mg/dl during this prolonged hospitalization, it did not match with chronic hyperglycemia. However a higher HbA1c was expected. This suggests that patient be careful to control her blood sugar level. But all of her efforts were on showing high BS, pretending to be ill and misleading doctors and nurses. She used every trick to mislead the medical team. This behaviors were done at night or when she was alone in room. Despite uncovering these facts, we tried to stay patient unaware of leaking it. With finding the puzzle key and most probable Munchausen syndrome, the patient was referred to psychiatrist for psychiatric counseling sessions.

**DISCUSSION**

In patients with somatic symptoms which physician don’t find any medical problem, psychosomatic disorders and factitious disorder must be considered. Jermendy G reported a case of
Munchausen syndrome presenting as a factitious hypoglycemia which repeatedly referred with recurrent and severe hypoglycemic episodes. There are numerous reports of factitious hypoglycemia in papers but only one report of factitious diabetic ketoacidosis and hyperglycemia by Alinejad NA and Oettel DJ was reported which was due to withholding insulin injection. Several studies in recent years have shown that brittle diabetes mellitus almost always is secondary to an underlying etiology which the most of them is psychological problems such as factitious disorders and comorbid psychiatric disorders. The most common underlying cause of brittle diabetes is psychiatric problems such as borderline, histrionic and narcissistic personality disorders. In a case control study between diabetic patients with stable glycemic control and brittle diabetes group by Pelizza and Pupo, high prevalence of DSM-IV-TR cluster B personality disorders was obtained in brittle diabetic patients. Its treatment should be focused on resolving the underlying etiologies but unfortunately nearly half of patients respond to treatment of the underlying cause. Biofeedback and hypnosis can use for treatments of this disease. Treatment of comorbid psychiatric disorders are very important. An appropriate therapy for patients with factitious disorder is at first clinical psychotherapy and then long term therapy as an outpatient treatment. In order to optimal glycemic control in patients with brittle diabetes, psychotherapy will be helpful. According to three DSM IV-TR criteria for FD including display physical symptoms of disease, playing the role of the patient in order to have motivation and absence of external stimulus for the occurrence of this behavior, our patient's fills criteria of factitious disorder. Eventually factitious disorder for this diabetic teen daughter was diagnosed based on her emotional problems in family, discrepancies between her subjective problems such as abdominal pain, nausea and vomiting with our normal examination and laboratory findings. Detection of impregnated finger to date palm before glucometry, intravenous cannula separation from insulin pomp, throwing insulin away from pomp, taking water into insulin pen instead of insulin, eating fruit juice and jam, all of them led us to the main diagnosis and cause of brittle diabetes. The main purpose of this article was in relation to a diabetic patient with brittle diabetes, difficulty in control blood sugar level, discrepancies between patient symptoms and sings, factitious disorder or Munchausen syndrome should always be in our mind. The key point is brittle diabetes treatment and achieving goal BS depends on the treatment of psychiatric disorders.

Authors’ contributions: M.N.: collecting data, diagnosis and follow-up patient in clinic; H.E.: consultant physician and psychiatric diagnosis; S.T.T.: resident of patient in endocrinology ward, collecting data and writing manuscript

REFERENCES

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