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Successful Treatment of Intractable Hiccups due to Psychosomatic Disorder

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Abstract

Background: Hiccups are most often self-limited and resolve spontaneously without the need for any medical treatment. Intractable hiccups may be a symptom indicating a serious insidious disease that should be investigated. We report here a rare case of intractable hiccups due to psychosomatic disorder which was successfully treated by acupuncture and antipsychotic therapy.

Case: A 29-year-old female was admitted to our unit with hiccups lasting three months. After the organic pathologies were ruled out, many drugs were used, but no response was taken. Then, the patient was undergone to detailed psychiatric evaluation. It was considered intractable hiccups because of psychosomatic disorders. Acupuncture and antipsychotic therapy was administered to the patient and hiccups gradually decreased and ceased after three months of therapy.

Conclusion: In intractable hiccups cases, after all other organic causes were ruled out, underlying psychosomatic disorder should not be ignored. Acupuncture and antipsychotic therapy can be considered for patients with intractable hiccups refractory to conventional therapy.

Keywords: Intractable hiccups; Psychosomatic disorder; Acupuncture

Introduction

Hiccups are involuntary spastic contractions of the diaphragm and intercostals muscles followed by the rapid closing of the glottis [1] and generally a self-limited disorder. Hiccups generally cease within minutes and are harmless [2], therefore they don't necessitate medical treatment [3]. Hiccups can be classified by their duration, as follows: up to 48 hours, acute; between 48 hours and less than 2 months, persistent; and last longer than two months, intractable [4-6]. Intractable hiccups can be associated with weight loss, insomnia and fatigue. Therefore, search of the underlying cause is obligatory for a powerful treatment of intractable hiccups [3].

Hiccups can be caused by many triggering factors including central nervous system (CNS) abnormalities, abdomen, head and neck, and thorax pathologies, metabolic, surgery, and psychogenic (stress/excitement, conversion, schizophrenia). However, most of the reasons of hiccups arise from the gastrointestinal system (GIS) or the CNS [2,3,7]. Some medications including chemotherapy agents, antidepressants, opioids, and corticosteroids are also known to be causes of hiccups [2,8].

Essentially, hiccups are self-limited, so there is no need etiological evaluation and emergency treatment unless hiccup-resistant [2]. The treatment of intractable hiccups involves a wide range of pharmacological and non-pharmacological medicines [2,9]. There is often required medical therapy in the treatment of intractable hiccup. Chlorpromazine, baclofen and metoclopramide are the most commonly used drugs for this purpose. The phrenic nerve blockade, hypnosis, and acupuncture are other treatment options, especially for severe cases [10,11]. Here, we report an unusual case of intractable hiccups due to psychosomatic disorder which was successfully treated by acupuncture and antipsychotic therapy.

Case Presentation

A 29-year-old woman was referred to our unit because of intractable hiccups. Her symptoms started three months ago with a sudden onset of anorexia, heartburn, pyrosis, nausea and vomiting. She had hiccups that being two to three times in a minute. The hiccups was starting with eating a meal and stopping in the duration of sleep at the beginning of symptoms; however, the symptoms gradually increased and became continuously even in asleep in time. Also, she had significant weight loss at that time. There was no history of other diseases, natural product, and intravenous drug use or alcohol abuse. Her familial medical history was unremarkable. The physical examination findings

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were normal. A chest roentgenogram, electrocardiography (ECG), complete blood count, biochemical tests, and urine test were all normal. The patient was investigated to detect the reason of hiccups. An esophago-gastroduodenoscopy (EGD) showed LES relaxation, and then an acid reflux was verified by intraluminal impedance pH-metry and 24-hour pH monitoring. In addition, she was assessed by several medical examinations including neck ultrasonography, a computed tomography (CT) of chest and abdomen, a cranial magnetic resonance imaging (MRI). None of them detected a pathological finding explaining the hiccups.

In our patient, firstly, rabeprazole (20 mg daily), metoclopramide (10 mg, three times daily), and chlorpropamide (25mg twice daily) were started for possible gastro esophageal acid reflux (GER) related hiccups. Despite decreasing in GER symptoms, hiccup had given no relief in two weeks. After chlorpropamide was stopped, baclofen 15mg/day was added to therapy and gradually escalated to 60mg/day dose. Inversely, the severity and frequency of hiccups increased day by day. As hiccups was resistant to drug therapy, the phrenic nerve ablation was performed on the right side at first, then the left side, but did not respond to this treatment modality. Then, we tried alternative treatment approaches such as digital rectal massage [12] and endoscopic cardia massage [13] but it was not useful. Therefore, the patient was consulted with psychiatry. After psychiatric assessment, complaint of hiccup was considered to be a finding of a psychosomatic disorder. When we got much more anamnesis from the patient, we learned that she had many stressful problems related to mother in law. An acupuncture treatment modality once a month and antipsychotic therapy (sulpirid tab. 50mg, twice a day) were applied to the patient. After 2 months from beginning to the treatment, hiccups gradually decreased and stopped.

Discussion

We reported here an unusual case of intractable hiccups due to psychosomatic disorder which was successfully treated by acupuncture and antipsychotic therapy. Hiccups can be caused by numerous organic diseases, and psychogenic and idiopathic [2,3,7]. To our knowledge, there has not been a previously reported intractable hiccup due to psychosomatic disorder.

The neurotransmitters serotonin, dopamine and gamma amino butyric acid have been documented an important role in the formation of hiccups though it cannot determine the exact pathophysiological mechanisms [14]. Persistent and intractable hiccups generally indicate underlying disease process and are most probably related to an organic disease [2,3,7]. It is well known that GERD is commonly related to belching and GERD patients may have hiccup episodes [2]. In the literature, many hiccups cases due to gastroesophageal reflux have been reported [4,15-18]. In our patient, gastroesophageal reflux was diagnosed, so antireflux therapy was applied, but hiccups didn't stop.

Intractable hiccups can result in malnutrition, weight loss, fatigue and exhaustion, wound dehiscence, and insomnia, dehydration and even death in the extreme situations [5,7,19]. Similarly, there were some complaints such as fatigue, insomnia, and exhaustion in our patient.

The effective hiccup treatment is linked to underlying cause [2,7]. However, if the cause of hiccups is not established, empiric therapy is often necessary. So far, intractable hiccups have been treated pharmacological and non-pharmacological medicine [7].

Unfortunately, except for a few cases, there is no guideline available to direct treating these serious disorders effectively [2]. Drug treatment is required when hiccups persist longer than normal [3]. The most widely administered drugs are chlorpromazine [20] and metoclopramide for the primary treatment of persistent hiccups [3]. Chlorpromazine is the only Food and Drug Administration approved drug to treat this disorder in the United States [21,22].

Maximov et al reported that a male patient who was non-responsive to chlorpromazine or metoclopramide, and baclofen. They demonstrate that lansoprazole, dimenhydrinate and clonazepam were capable of successfully improving intractable hiccups [3]. Baclofen which is a derivative of gamma aminobutyric acid (GABA), has been used to treat hiccup [23] due to CNS tumors and chronic renal failure [24,25]. However, baclofen should be used very attentively in elderly patients and those with CRF due to the side effects such as nephrotoxicity, ataxia, confusion and sedation [25]. In our patient, after used baclofen, similar clinical findings developed; however, the severity and frequency of hiccups and insomnia increased during the baclofen treatment course, in contrast to expected.

Interventional therapies like phrenic nerve ablation are reserved for the most severe cases [7]. Phrenic nerve ablation was also performed in our case but was not responded.

Many treatment options ranging from conventional remedies, alternative medicines to emerging therapies which may treat hiccups successfully have been reported in the literature [22]. Hypnosis and acupuncture are other modes of therapy that have been used in severe cases [7,10]. Acupuncture is a well-known alternative therapy in practice worldwide. Liu FC suggested that acupuncture may be considered for patients with hiccups refractory to conventional therapy [11]. Yang ZH et al reported that acupuncture is a convenient method for hiccup with a definite therapeutic effect [26]. When it was diagnosed intractable hiccups due to psychosomatic disorder, acupuncture and antipsychotic therapy were applied in our patient. It has been reported by Dietzel J. et al, the acupuncture is also useful even in a persisted postoperative hiccup case [27].

Decoutere L et al showed that L-sulpiride was an effective drug in the treatment of functional dyspepsia in four randomized controlled trials. They suggested that antipsychotic agents are regularly prescribed in the treatment somatoform disorders [28]. Koelen JA et al in a meta-analysis reviewed 890 patients receiving psychotherapy and 548 patients receiving treatment as usual and they suggested that psychotherapy is effective in severe somatoform disorder [29]. In our patient, antipsychotic therapy (sulpirid tab. 50mg, twice a day) was applied together with acupuncture and it was effective.

Conclusion

In conclusion to our knowledge, this is the first case report of intractable hiccups due to psychosomatic disorder which was successfully treated by acupuncture and antipsychotic therapy. Psychosomatic disorder should be considered in the underlying cause of intractable hiccups. Acupuncture and antipsychotic therapy can be considered for patients with intractable hiccups refractory to conventional therapy.

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