

Persistent hiccup treated by hypnosis

Solução persistente tratado por hipnose

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ABSTRACT

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This is a case report of a patient complaining of persistent hiccup for at least 1 year and who had tried several different treatments, pharmacological or else, without improvement. A two-year treatment with hypnosis was proposed and resulted in total remission. This report can be seen as a reference, basically because it approaches little understood symptoms through an also little known therapy, rarely used in medicine: hypnosis. It is known that hiccups are more often resolved either spontaneously or with medication or through easy-to-perform steps (forced apnea, for example). The complaint, however, may become chronic in some patients and can be highly debilitating, bringing considerable damage, including social problems.

Key words: Hiccups; Hypnosis Therapy; Prognosis.

RESUMO

É relatado o caso de paciente com queixa de solução persistente, com duração de pelo menos 1 ano, e que havia tentado diversos tipos de tratamento, farmacológicos ou não, sem qualquer melhora. Foi proposto o tratamento por hipnose durante cerca de dois anos, obtendo-se a sua total remissão. Este relato constitui-se em referência, basicamente por abordar sintomatologia pouco compreendida, por intermédio de terapêutica pouco conhecida e de pouco uso médico: a hipnose. Sabe-se que o soluço, na maioria das vezes, resolve-se espontaneamente, por meio de medicação ou com medidas de fácil execução (apneia forçada, por exemplo). A queixa, entretanto, pode se tornar crônica em alguns pacientes, altamente debilitante e trazendo prejuízos consideráveis, inclusive sociais.

Palavras-chave: Solução; Hipnose; Terapêutica; Prognóstico.

INTRODUCTION

Hiccups are defined as neuro-respiratory phenomena due to the involuntary contraction of inspiratory muscles associated with the simultaneous closure of the glottis, and produce a characteristic noise. It is a simple and benign clinical manifestation, when transient, and can occur in the postprandial period or after ingestion of alcoholic beverages. Hiccups tend to pass spontaneously or by voluntary apnea, water ingestion or using the Valsalva maneuver. It may, however, be the cause of great discomfort, especially when it is chronic (over 48 hours of evolution), causing fatigue, sleep dysfunction, eating disorders, depression, and even suicide.¹⁻⁵

Hypnosis, a medical specialty acknowledged by the Federal Council of Medicine as hypnotherapy, is difficult to conceptualize. According to a 1993 definition by the *American Psychological Association*, it is a procedure during which the health pro-

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fessional suggests that the patient experiences changes in sensation, perception, thoughts, or behaviors.⁴ It has undeniable uses and needs to be more well-known, studied, and understood.

Basically two types of hypnosis are employed: the classic method, currently in disuse, in which the hypnotized subject is asked to focus the attention on some static or moving object (a pendulum, for example), and Ericksonian hypnosis (used in this work) created by Milton Erickson, a famous American psychiatrist who proposed an indirect approach to elicit resources that could be used at strategic steps.⁶ For this end, Erickson used several resources aimed at, if not curing, at least relieving the symptoms: storytelling, proposing practical exercises, use of metaphor, increasing and then reducing the patient/s symptoms (based on the premise that if a symptom can be exacerbated, it can also be reduced or eliminated).⁶

CASE REPORT

Male patient, a 41-year-old married mechanical engineer with leukoderma. Patient had a complaint of intermittent hiccups for about one year, sometimes followed by vomiting. He had been submitted to several treatments including acupuncture, sleep therapy, and general anesthesia on two occasions, without success. He had also used venlafaxine, midazolam, chlorpromazine, baclofen, gabapentin, phenytoin, omeprazole and domperidone, also unsuccessfully, and lost 8 kg in this period.

In the first interview the patient had serious hiccups and demonstrated suffering, anguish, apprehension, anxiety, profuse perspiration and an intense general discomfort. He reported that the hiccups began immediately after he moved to a new residential address after the purchase of a mortgaged property, which would have caused him concern and insecurity since he did not know if he could honor the payment of the installments. He also reported the recent passing of his father-in-law.

The patient reported a medical history of *bronchitis* up to the age of seven, with a previous diagnosis of 'Pigeon Breast' and Gilbert's syndrome. He denied smoking or drinking habits.

On clinical examination he was ruddy, hydrated, and eupneic. Respiratory and cardiac auscultation were normal and blood pressure was 120x80 mmHg. The abdomen had no changes to palpation and percussion. He was submitted to extensive complementary

propaedeutics, including upper digestive endoscopy, ionogram, calcium level testing, hemogram, glucose, creatinine, gamma-glutamyl transpeptidase, transaminases and thyrotrophic hormone; all were normal.

He confessed to being insecure, with low self-esteem and extremely dissatisfied at work, where he felt disrespected. He had a disturbed childhood with an alcoholic father and a failed suicide attempt by his mother when he was nine years old. His was a loving but strict and inflexible mother. The patient reported having found support in his wife's family. He reported being concerned about "not causing anyone any harm", and that he had heard insults from friends "that he should never have accepted". He admitted having difficulty talking about feelings, thus revealing a rational behavior.

Treatment started with weekly sessions of hypnosis of approximately one hour each. In the first half of every session he was encouraged to talk about himself, in a technique known in psychoanalysis as free association. The second half was the formal hypnosis itself, inducing a medium-depth trance through the use of several resources such as pausing while speaking in a low tone, thus attempting to induce progressive and complete muscle relaxation; or encouraging the patient to imagine himself in pleasant places, such as a beach or waterfall⁴. By the end of the first sessions the patient said he was feeling much better, despite the permanence of the symptom. He would, for example, go into a deep sleep all night long without hiccupping, according to his wife, which had not happened before. The patient was perceptibly more comfortable, happier, more optimistic, feeling more confident and cheerful. The hiccups persisted but showed less somatic damage. After one year of treatment he began to experience lengthy periods of respite which would last up to 30 days, with a clear change in the previous symptom patterns. Upon relapse the hiccups were less intense and of short duration. After about two years of treatment, which coincided with the Christmas holidays, there was total suppression of the hiccups with no relapse in one year of follow-up.

Formal hypnosis was employed in all sessions and the goal was always to provide the patient with suggestions that would promote not only the improvement or suppression of the hiccups, but also increase his self-esteem and desire for a good quality of life. In many patients, such as in his case, a characteristic vicious circle is noticed: symptoms compromise self-esteem; and low self-esteem worsens symptoms. It is always recommended, then, to promote an improvement in the symptoms and encourage self-assurance

by saying, for instance, that the patients *deserve* to be cured and happy.

Several pharmacological drugs were used along his evolution, such as baclofen, 10 mg twice daily, right at the beginning of the treatment and suspended after one month since it did not alter the symptoms; risperidone, 1 mg daily, which seems to have improved the sleep pattern; however, it was suspended just before 15 days after its introduction. Chlorpromazine, 15 drops three times a day, quickly suspended for having caused severe sedation, domperidone, 10 mg twice daily, which seems to have improved dyspepsia, and which was suspended after 15 days after the beginning of its administration. Thioridazine, 50 mg/day, quickly suspended for causing severe sedation, midazolam, 15 mg at bedtime for 45 days, which seems to have reduced discomfort during the night, gabapentin (300 mg) associated with baclofen (10 mg), twice a day for 30 days, famotidine, 40 mg/day for 60 days, and nifedipine, 10 mg three times a day for 60 days.

Upon realizing that the pharmacological therapy had failed the patient would use the medication irregularly. At the end of the hypnosis treatment, and concomitant with the complete relief of the symptoms, the patient was recommended by another physician who followed up his treatment to use gabapentin (300 mg twice a day), associated with omeprazole (20 mg/day), baclofen (10 mg twice a day) and domperidone (10 mg twice a day), for 90 days. It was also suggested that he suspended all medication, which he did.

DISCUSSION

Before starting any treatment with hypnosis an adequate clinical assessment the patient is necessary, based on a discussion of previous medical history, physical examination, and complementary propaedeutics to correctly evaluate its appropriateness. Hypnosis is prescribed for a range of clinical conditions, especially those of psychosomatic nature, panic disorder, migraines, irritable bowel syndrome, erectile dysfunction, reactive depression, phobias, insomnia, anxiety, and vaginismus.⁴ It may help provide comfort, refuge and safety, alleviating symptoms even in organic disorders.

The origin of the term *psychosomatic* is attributed to Descartes, who inadequately postulated the division of the human being into mind and body. The literature cites Heinroth, a German psychiatrist seen as a romantic, as the creator of the term in 1818, when he sought

to label and explain physical phenomena with no apparent organic cause.⁷ Franz Alexander, one of the greatest authorities in psychosomatics worldwide, was responsible for spreading ideas on psychosomatics in the 1930s at the Chicago Institute for Psychoanalysis. He was also involved with the cause and effect model, and theorized about specific conflicts that generated specific bodily responses. To this day these phenomena are not fully understood, but the idea of the division between mind and body no longer holds and is actually widely disputed. However, the term *psychosomatic* remains despite this criticism.⁷

It was Balint, a Hungarian psychoanalyst living in England in the 1920s who definitely contributed to change the focus of psychosomatics, especially after 1945 when his ideas became better known. The interest then became not only to seek for explanations and label diseases, but also to understand the importance of the doctor-patient relationship, showing the increasing signification of the psychosomatic conduct or attitude, which is considered valid to this date. Balint stressed the growing importance of studying the emotions brought forth during the interaction, both from the physician and from the patient. That new approach removed patients from a passive position and made them into active participants in their own treatment.⁷ That is precisely the approach valued in the treatment with (Ericksonian) hypnosis: to listen attentively to patients' complaints, to *accept* them with no restrictions, to show patients how their emotions may play an active role in the genesis and maintenance of symptoms, and to propose to patients a model of treatment that involves their active participation.

It is also of paramount importance to *demystify the term hypnosis* and show that there is nothing magical or fantastic in this method of treatment. It is simply a technique that complements psychotherapy, and which should be regarded as an accelerating instrument in the process of cure.

The term *hypnosis* is derived from the Greek word *hypnos* (sleep). The term is regarded as inadequate since the objective of hypnosis is not to cause the patients to sleep, but rather to make them more relaxed, calmer, and make them understand their symptoms under the emotional point of view, seeking an alternate path to cure. Nevertheless, the term is still used.

One of the myths about hypnosis is that the power is concentrated in the hypnotist's hands. It is necessary to make it clear to the patient that hypnosis is only achieved by the acceptance and interaction of

the person who goes into a trance in order to experience what is being asked⁴. As previously stated, patients in hypnotic treatment are an active part of the process and their interaction with the therapist is necessary so that together they can find their way to cure. It is a treatment model that challenges the physician as “holder of all knowledge” model, in which the physician is seen as a demigod.

It is necessary to tell the patient that hypnosis happens naturally in our everyday life, for example: when one is driving through a boring road in a repetitive landscape, one can easily go into a trance, or when one is watching an intriguing film and emotionally reacts to it by crying or laughing, or even with an increase in heart rate and perspiration in the extremities.⁸ All this clarification is aimed to facilitate the *rapport with the patient*, which can undoubtedly contribute to the efficacy of the healing process.

Informal hypnosis consists of a conversation between physician and patient, such as in classical anamnesis situations, demonstrating active listening and sympathizing with their suffering. It is customary to say “I understand...” or “I can imagine how you have been suffering” to show appreciation of the situation.

In *formal* hypnosis the so-called hypnotic trance⁴ is induced, which basically consists in making the patient relax. Relaxation is in itself therapeutic. In this phase, before inducing the trance, it is usual to ask the patient about their recreation or vacation preferences, for instance. They are told to lie down or recline, whatever is more comfortable; in case they like the beach, they are asked to close their eyes and imagine the waves crashing in the background and the sea breeze on their face. In the meantime, the physician proceeds to suggest that patients progressively relax their muscles. As relaxation is noticed in the patient the physician starts giving suggestions they want to offer to the patient/s mind, according to each case, in order to facilitate the healing process.

There are basically three levels of trance depth: mild trance (eyelid catalepsy, relaxation, heavy limbs and sensation of added weight in several parts of the body), moderate trance (partial amnesia, noticeable limb catalepsy, isolated increase in the most diverse sensations), and deep trance (total amnesia in most subjects, surgery-like anesthesia, ability to remain in a trance with eyes open). Most hypnotherapists prefer the moderate trance, which has shown to be highly effective for most patients.⁴

Hiccups can have several etiologies and, depending on the organs and systems, they may be: a) in the

central nervous system: neoplasia, ventriculoperitoneal shunt, multiple sclerosis, hydrocephaly, and brain stroke, b) in the peripheral nervous system, due to irritation of the phrenic or vagus nerve: hiatal hernia, esophagitis, pericarditis, acute myocardial infarction, neck neoplasms, mediastinal lymphadenopathy, pulmonary infections, cancer of the esophagus, gastritis, peptic ulcer, and gastric cancer, c) metabolic, pharmacological and infectious: general anesthesia, barbiturates, methyl dopa, sepsis, malaria, tuberculosis, uremia, hypocalcemia, and hyponatremia. The literature mentions idiopathic and psychogenic causes.¹⁻³

Hiccups are classified as persistent when their evolution is longer than 48 hours and less than a month. Beyond 1 month they are classified as intractable.^{9,10} Persistent hiccups are often idiopathic. Despite the several treatment options, there is no protocol, consensus, or randomized study¹¹. Some treatment strategies remain empirical. Most of the knowledge on the use of medication comes from a few case reports.¹¹ In this report, the patient had already undergone several treatments and examinations, always with no success.

Among the drugs prescribed, only chlorpromazine is approved for use and has been, for many years, the drug of choice in 25mg doses up to four times a day. Nevertheless, it may bring about severe side effects such as hypotension, urinary retention, glaucoma, and delirium.¹¹ Among the anticonvulsants, valproic acid may be effective to block the hiccup stimulus. Gabapentin causes blocking of the neuronal calcium channels and increases GABA release, modulating diaphragmatic excitability. A study with 43 patients showed clinical improvement in 32 patients with a 900 mg/day dose, and in nine patients with a 1,200 mg/day dose and no significant side effects except for drowsiness.¹¹ Baclofen, 5-20 mg three times daily, has proven to be effective since 1992 by blocking synaptic transmission. It may, however, cause ataxia, delirium, dizziness, and sedation, mainly in patients with impaired renal function. Nifedipine, 10-20 mg three times daily per os, may be efficient in reverting anomalous depolarization of the hiccup reflex arc. There is a substantial risk of inducing hypotension, especially in hypovolemic patients. Methylphenidate may reduce hiccups based on the inhibition of dopamine and norepinephrine reuptake. It may be a good option for depressed patients or those under opioid sedation.¹¹ Midazolam has been used with good results. It is administered by continuous IV infusion and causes sedation for short periods. Lidocaine, also by IV infusion, has interrupt-

ed hiccups in immediate postoperative patients with cardiovascular and neurological toxicity risks, especially in patients with advanced diseases.¹¹ Sertraline may be beneficial due to its action on peripheral serotonin receptors in the gastrointestinal tract, reducing abnormal motility in the stomach, esophagus or diaphragm or due to its core effects in the hiccup reflex arc. There are reports of therapeutic success with IV administration of methylamphetamine (6-12 mg) or pentazocine (30 mg)¹⁰. An association of baclofen and gabapentin can be attempted or the use of both in association with cisapride and omeprazole. There is, however, the danger of prolonged use of such drugs (especially cisapride, which is prohibited in Brazil), due to the risk of severe side effects.¹¹

It is very probable that the origin of the hiccups in this report was psychogenic. This was an insecure patient with an unsettled, fragile personality and low self-esteem. In several psychosomatic disorders, the symptoms function as a cry for help, a way to externalize all the anguish that would otherwise become unbearable. The patient was dissatisfied at work, felt he was exploited, which would certainly contribute to – if not cause – the aggravation of his symptoms. He seemed to have a submissive, self-sacrificing, and resigned personality. His ability to face the disease, to accept such debilitating symptoms without even showing any sign of irritation or impatience, even sometimes laughing at his own situation, was quite noteworthy. Without a doubt, his persistence in the treatment and his assiduity contributed greatly for the cure.

During hypnosis sessions suggestions that improve self-esteem are used to encourage self-assurance and reaffirm the capacity to cope with difficult situations. It is also necessary to try to suppress the symptoms, thus promoting muscle relaxation as a whole, especially in the diaphragm, which is known to be involved in the genesis of the pathological process. Improvement of the symptoms was gradual, as is common in hypnosis therapy. It is actually common for patients to feel worse and only later to begin to gradually feel better.

CONCLUSION

Hypnosis can be a valid therapeutic resource in the treatment of hiccups. Two arrangements are indispensable before prescribing hypnosis treatments:

- to exclude any organic etiology and, whenever possible, correct it;

- to make sure that hypnosis is performed efficiently, including basic knowledge in psychodynamics.

This report has several limitations, since only one patient was approached under this mode of treatment. As mentioned previously, there are few case and treatment reports in the medical literature, which proves that the symptoms of hiccups are still not well understood, with an oftentimes idiopathic etiology, making it difficult to assess the effectiveness of the treatment. It should also be considered that *medical hypnosis* is relatively new in Medicine and that its mechanism of action is still not well known.

One must also highlight, in conclusion, the fact that according to Brazilian regulations only medical professionals, dentists, and psychologists are authorized to use hypnosis on their patients⁴ and that it must be regarded as yet another therapeutical resource that may be of great help in many clinical situations, with the purpose of alleviating suffering and improving quality of life.

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