Medical Hypnosis for Hyperemesis Gravidarum

Eric P. Simon, PhD, and Jennifer Schwartz, MD

ABSTRACT: Hyperemesis gravidarum in pregnancy is a serious condition that is often resistant to conservative treatments. Medical hypnosis is a well-documented alternative treatment. This article reviews the empirical studies of medical hypnosis for treating hyperemesis gravidarum, explains basic concepts, and details the treatment mechanisms. The importance of a thorough differential diagnosis and appropriate referrals is stressed. The article presents three case studies to illustrate the efficacy of this treatment approach. It is suggested that medical hypnosis should be considered as an adjunctive treatment option for those women with hyperemesis gravidarum. It is also stressed that medical hypnosis can be used to treat common morning sickness that is experienced by up to 80 percent of pregnant women. Its use could allow a more comfortable pregnancy and healthier fetal development, and could prevent cases that might otherwise proceed to full-blown hyperemesis gravidarum. (BIRTH 26:4 December 1999)

Pregnant women frequently suffer from symptoms of “morning sickness,” and because nausea and vomiting are so common in the first trimester of pregnancy, it is considered a normal response to the expected hormonal changes of this phase of life. Some women, however, go on to develop full-blown, hyperemesis gravidarum, often leading to serious risks for the mother and her fetus, as well as lengthy and costly hospitalizations. A woman presenting with hyperemesis gravidarum can be a common occurrence for the maternity care professional. This syndrome includes severe, intractable vomiting associated with dehydration, weight loss, irregular heart rate, electrolyte imbalances, and sometimes elevated temperature and jaundice (1,2). The condition can become so severe that it leads to death (3–5). Base rates for hyperemesis gravidarum indicate that approximately 1 to 5 percent of hyperemesis gravidarum patients require hospitalization (6). For these cases, traditional care usually includes some combination of bed rest, intravenous fluids with electrolytes and glucose, a fluid diet, multivitamins, steroids, insulin, antihistamines, phenothiazines, adrenocorticotropic hormone (ACTH), and sometimes gastric tube feeding (7–13).

Since hyperemesis gravidarum is often resistant to such conservative treatments, alternative modalities are sometimes used, such as acupressure and ginger root (Zingiber officinale), both of which have received equivocal support (14,15). The purpose of this paper is to describe one well-documented alternative treatment to hyperemesis gravidarum, that is, medical hypnosis.

Medical hypnosis can be a powerful adjunct to the typical medical treatment regimen, and empirical studies have well documented the efficacy of this approach for hyperemesis gravidarum (16–21). Although much of this research is based on case studies, and any sole case study would lack rigorous scientific methodology, a clear trend of empirical treatment efficacy is evident. To address this concern further, a study was conducted with 160 hyperemesis gravidarum patients whose condition was totally recalcitrant to conservative medical treatment (consisting of antiemetic drug therapy, isolation by hospitalization, and intravenous rehydration) (22). Of these 160 women, 22 (13.7%) refused hypnotherapy, 4 of whom elected for early termination of their pregnancies. Of the 138 women who participated in hypnotic treatment, 88 percent stopped vomiting
completely after 1 to 3 hypnosis sessions. This study was limited by its lack of a control group, but in a clinical setting a real possibility arises of harming the control group participants (23). Furthermore, given that these women’s condition was resistant to conservative treatments, “spontaneous improvement” is considered unlikely, and it can be relatively safely concluded that the observed gains were treatment related.

Given the effectiveness of medical hypnosis for hyperemesis gravidarum, it is therefore not surprising to find that medical hypnosis has also been reported to be an effective treatment for hyperemesis secondary both to chemotherapy (24–26) and to motion sickness (27). Indeed, hypnosis can be a powerful tool to evoke physiologic change.

Using Hypnosis to Evoke Physiologic Change

The Western medical approach has traditionally been oriented toward differential diagnosis, leading to surgical procedures, pharmacologic curative agents, or both. In the new mind-body era (28), with an emphasis on mind-body connectedness, we now understand that “alternative” treatments can bring about symptomatic relief that is often equivalent, if not superior to, drug outcomes. One such approach is hypnosis. With hypnosis one can evoke physiologic changes that were once thought beyond voluntary control. For example, hypnotized individuals have shown “voluntary control” over physiologic mechanisms, such as sympathetic tone, vasoconstriction and vasodilation, heart rate, and muscle tension. Hypnosis is similar to biofeedback in that physiologic change is brought under an individual’s voluntary control. In biofeedback a person is taught the method using external feedback of their physiologic systems, whereas in hypnosis, control over these physiologic processes is evoked from within the person.

Definition of Hypnotherapy

According to the American Psychological Association Division of Psychological Hypnosis (Division 30), hypnosis can be seen as a procedure during which changes in sensations, perceptions, thoughts, feelings, or behavior are suggested (29). Kihlstrom (30) offered a more specific understanding of hypnosis, describing it as a set of procedures in which a person designated as the hypnotist suggests that another person (the patient or subject) experience various changes in sensation, perception, cognition, or control over motor behavior. It has an induction phase and an application phase. Others have taken issue with the concept of a “trance state” and simply describe hypnosis as a heightened state of relaxation or a state of focused attention (31). Finally, investigators from the Stanford University hypnosis research laboratory elucidated the commonalities of hypnosis with dissociation, a mental separation of components of experience that would ordinarily be processed together (32).

Hypnotized individuals can display a dissociation of content (33), in which their attention is so completely absorbed in the immediate narrow experience that other material (e.g., affective, behavioral, and perceptual information) is relegated to the periphery of consciousness where it is temporarily inaccessible. Examples of this include a person’s natural ability to block out unnecessary sensory data, such as the ongoing sounds of a computer motor or a ceiling fan, or being so absorbed in a movie that one is largely unaware of restricted personal space.

Hypnotized persons can also display a dissociation of context (33), where the narrowing of attention and increased absorption temporarily suspends higher order reflective cognitive structures and processes—the individual has the sense that internal experiences are beginning to happen all by themselves (autonomously). This dissociation of context is often what leads the individual to be more susceptible to hypnotic suggestions.

A trance is associated with many physiologic changes that include flattening of facial muscles, decrease in orienting movements, immobility, changes in blinking and swallowing, catalepsy in a limb, autonomous motor behavior, altered breathing and pulse, fixed gaze, faraway look, changed voice quality, time lag in response, literalism, perseveration in response, dissociation, relaxed muscles, amnesia, and time distortion.

During a hypnotic session, the individual is encouraged to focus on the hypnotist’s voice and pleasant images, and to fix his or her gaze in some particular manner. During this induction phase, the individual begins to enter a hypnotic trance, at which time the conscious mind becomes less and less vigilant to the immediate surroundings. When this conscious-unconscious mind dichotomy becomes more salient to the individual, the unconscious mind becomes more amenable to suggestions (which are congruent with the person’s belief system) for new possibilities from the hypnotic trance. The hypnotist serves as a guide, helping to transport the individual from the normal awake state of consciousness to a state of hypnotic trance. People often describe trance as a pleasant, relaxed, altered state of consciousness, a type of reverie, or both. This ability can be taught so that the individual can enter the trance on his or her own and control distressing psychophysiologic symptoms. Because it has been shown that medical problems suc-
cessfully treated with hypnosis often need to be reinforced by self-hypnosis (34), sessions are commonly audiotaped for the client’s regular home practice.

Medical hypnosis, or hypnotherapy, is the clinical application of hypnosis to medical disorders and procedures. In 1955 the British Medical Association declared hypnosis as a legitimate form of medical treatment when applied by an appropriately trained practitioner, and in 1958 the American Medical Association gave their formal endorsement as well. Health care professionals from a variety of disciplines can be trained to administer hypnosis. Information about training opportunities can be obtained by contacting the American Society of Clinical Hypnosis (www.asch.net), the Milton H. Erickson Foundation (www.erickson-foundation.org), the Society for Clinical and Experimental Hypnosis (www.sunsite.utk.edu), or Division 30 (Psychological Hypnosis) of the American Psychological Association (www.apa.org/divisions/div30).

Initiating Hypnotic Treatment

Given the established effectiveness of medical hypnosis for hyperemesis gravidarum, it is of concern that hypnotic treatment is typically initiated only after “conservative” treatments have already failed. Unfortunately, maternal health caregivers may simply think, “Why not give this a try, nothing else has worked.” Unlike many medications, medical hypnosis has no unwanted side effects (such as teratogenic influence). Of course, before initiating hypnotic treatment it is vital for the client to have had a thorough medical evaluation to diagnose any organic pathology or comorbid conditions. However, after such an evaluation medical hypnosis should be initiated as an adjunct to first-line treatment rather than waiting for a potential treatment failure before initiating hypnotic treatment.

Because nausea and vomiting are considered a normal response to the expected hormonal changes of pregnancy, these symptoms commonly are not treated by the traditional medical approach. This is unfortunate because a clear connection is present between decreased morning sickness and a reduction in miscarriage rates (35). Furthermore, in terms of societal costs, it has been estimated that approximately 8.5 million working days per year are lost because of nausea and vomiting secondary to pregnancy (36). Therefore, not only can the hyperemetic pregnant woman benefit from medical hypnosis, but also women experiencing common morning sickness may benefit from learning psychophysiological self-regulation through hypnosis. Approximately 80 percent of pregnant women (36) may experience extreme discomfort from the condition (sometimes for 6 months of a 9-month pregnancy), which may be ameliorated by this simple, short-term, noninvasive treatment. In addition, since the use of hypnotic treatment in common cases of morning sickness may reduce the number of those that would have otherwise developed into full-blown hyperemesis gravidarum, the treatment may also have value as a preventative measure. Future research should examine this issue empirically.

Hypnotic Preparation

It is unfortunate that, due to its portrayal in television, movies, and stage shows, individuals often have extremely distorted ideas about hypnosis that can be obstacles to initiating treatment if not addressed in the first session. The myths about hypnosis should be dispelled so that clients understand that, first, all hypnosis is self-hypnosis; second, going into a trance is not handing over control to someone else but rather increasing self-control over physiologic processes; third, medical hypnosis does not involve giving suggestions so that the client will do something that is embarrassing (compared with stage hypnosis); fourth, one cannot get stuck in a trance (it is not at all like a “black hole”); and fifth, hypnosis is not a state of sleep. It is also beneficial to dispel these myths to hospital staff and provide them with studies on treatment outcome data so that they have a good understanding of this special treatment approach.

Some research has suggested that only certain, “highly hypnotizable” individuals can go into a hypnotic trance, and considerable evidence suggests that hypnotic responsiveness is a trait-like capacity (37). More recent theorists have shown that hypnosis is a naturalistic human ability (38), however, and with proper instruction and guidance any client can enter a trance (39) and use it for psychophysiological self-regulation. Indeed, for most individuals hypnosis is a learned skill that gets better with practice (40,41).

How Does Hypnosis Work To Control Hyperemesis Gravidarum?

In addition to the empirical literature discussed earlier, several clinicians have offered specific recommendations with respect to tailoring hypnotic suggestions for women with hyperemesis gravidarum. Because some authors believe that unconscious ambivalence about pregnancy is associated with hyperemesis, hypnotic suggestions can be given to address this underlying psychological conflict (42,43). Other suggestions have included a hypnotic rheostat device (44), glove anesthesia (45), minty-tasting toothpaste imagery (46), progressive anesthesia (47), and a focus on the powers of the unconscious mind (48).
We believe that hypnosis can effectively treat hyperemesis in two primary ways. One component of the treatment mechanism is that in a hypnotic state, individuals are often induced into a deep state of physiologic relaxation. This acts to decrease sympathetic nervous system arousal, and symptoms associated with sympathetic hyperarousal then tend to remit concordantly. Despite the data indicating the efficacy of hypnosis over and above relaxation strategies and simple placebo effects, some critics of hypnosis have mistakenly argued that a hypnotic trance is merely a deep state of physiologic relaxation. Although deep relaxation is a common component of hypnosis, a hypnotic trance is not defined by or limited to such a state. Research conducted at Stanford University (49) revealed that individuals can remain in a trance even during sympathetic hyperarousal (e.g., when pedaling on stationary exercise machines). Furthermore (and the second component of the treatment mechanism), it is well established that individuals often respond to hypnotic suggestions (50) for symptom removal independent of sympathetic or parasympathetic arousal, and interestingly, often independent of their conscious awareness or memory of the suggestion. Thus, although one area of hypnotic treatment for hyperemesis can involve decreasing sympathetic arousal, a second component involves giving the woman indirect and direct suggestions for symptom alleviation.

Women can be provided with suggestions to relax their stomach and throat muscles causing their nausea, gagging, and vomiting to subside. This can be accomplished by suggesting that muscle tension in the stomach and throat and/or nausea become a hypnotic cue to engage in particularly pleasant imagery. In addition, women can be given hypnotic metaphors about hurricanes, for example (Case 2), as an indirect suggestion for increased self-control, increased self-efficacy, and alleviation of symptoms.

Case Examples

Case 1

Mary was a 28-year-old pregnant woman who had three normal deliveries, the last one occurring 2 years earlier. She had a history of hyperemesis gravidarum during her three previous pregnancies, and on admission at 8 weeks’ gestation, she was again suffering from severe hyperemesis. She reported an inability to eat, a loss of 8 pounds in the past 3 weeks, and ketoacidosis. Before initiation of hypnotic treatment, her nausea and vomiting of 8 to 10 times per day were resistant to antiemetic medication (Phenergan and Zofran).

The pregnancy was planned, expected, and desired. Her psychological evaluation and family dynamics were unremarkable. She was likely exhibiting a conditioned response to her previous experiences with hyperemesis. During the first session she was taught about hypnosis, and in the following two sessions, she was given direct suggestions for symptom alleviation. After these sessions her nausea and vomiting fully remitted for the remainder of her pregnancy. She gave birth to a girl weighing 7.1 pounds. An excerpt from one of her hypnotic sessions follows:

. . . From this moment forward, should you ever feel any nausea or even just tension in your stomach or throat . . . related to your medical condition . . . it will be an immediate signal and cue to you for your muscles to relax . . . you will immediately take 2 deep relaxing breaths . . . and envision the healing ball causing the muscles to immediately let go of tension . . . and then absorbing . . . any remaining nausea in those areas. . . . As those muscles relax some more . . . and that’s just fine . . . you may be consciously aware of carrying out this healing process . . . or maybe just simply aware of carrying this process out at an unconscious level . . . and after this process has been carried out . . . the healing ball will gradually . . . and methodically . . . roll back down your shoulder . . . down your arm . . . down your hand . . . and gently . . . arriving at the tip of your index finger . . . and quite gently a balloon will float down . . . and with a string . . . attach itself to the ball . . . lifting it . . . up . . . and . . . away . . . taking all sensations of nausea with it . . . once and for all.

This case illustrates that the symptoms of hyperemesis gravidarum can be treated hypnotically by simply using a classic conditioning model (physiologic learning theory). The woman was given direct hypnotic suggestions that counteracted her previously conditioned response of nausea and vomiting. An exploration into the intrapsychic underpinnings of her symptoms was not warranted or necessary. The woman was simply taught an effective method of psychophysologic self-regulation.

Case 2

Joan was a 26-year-old primipara who was seen at 12 weeks’ gestation. With the administration of intravenous fluids as well as Phenergan, her condition of hyperemesis gravidarum improved. She was then discharged from the hospital, with only slight vomiting at a rate of 2 to 3 times per day. Five days later she was readmitted suffering from severe vomiting of 6 to 8 times per day, ketoacidosis, and weight loss of 3 pounds. Her symptoms were then resistant to antiemetic medication (Phenergan and Zofran), and at that point hypnotherapy was initiated.

Although Joan’s psychological evaluation was negative for any formal psychiatric, comorbid condition, it became clear that her symptoms had a significant emotional component. The pregnancy was neither
planned nor expected, but she initially reported an unambivalent desire to give birth to the child. As the evaluation progressed, her ambivalence about the child became clearer—she had many concerns about the limitations associated with caring for a newborn, and she held fears about being an incompetent mother and wife. It also became clear that Joan was struggling with difficulties associated with the pressures and expectations of her mother-in-law, and with her husband’s inability to set firm boundaries for his primary family.

Because she was a Jehovah’s Witness, much of the focus in the first session was dedicated to dispelling the common myths about hypnosis and addressing her concerns about how hypnosis might conflict with her religious views. After this session she was seen for three hypnosis sessions and instructed to practice self-hypnosis with an audiotape of the sessions. This client was given direct suggestions similar to those given to the client in Case 1 to address the symptoms at the level of physiologic conditioning. In addition, hypnotic suggestions were given to normalize her feelings of guilt about secretly wishing she were not pregnant, so that she did not need to continue to “make herself sick” over all of this. A metaphor of a hurricane was used to increase her sense of self-control, both over her physiologic symptoms and her family environment. Her nausea and vomiting remitted after this time and for the duration of her pregnancy. She gave birth to a boy weighing 8.5 pounds. This is an excerpt from one of her hypnotic sessions:

... It is interesting to note that certain areas of the country tend to experience a greater frequency of hurricanes during particular seasons of the year . . . and the amazing thing . . . is that despite all of the chaos and dis-ease created by the power of winds sometimes in excess of 100 miles per hour, in the eye of the hurricane, there exists complete and utter calm . . . That’s right . . . in the I of the hurricane, one can really enjoy complete peace and calm . . . where it is totally quiet, and totally calm.

This case illustrates several points. First, before initiating hypnotic treatment, it is absolutely vital to address any concerns about hypnosis and dispel any myths that the woman may have learned, otherwise treatment compliance would be difficult to achieve. Second, the psychophysiologic response can be modulated by direct hypnotic suggestions. Third, psychological issues related to the symptoms of nausea and vomiting can be meaningfully addressed through indirect hypnotic suggestions.

**Case 3**

Linda was a 26-year-old pregnant woman seen at 26 weeks’ gestation. Before initiation of hypnotic treatment she was vomiting 6 to 8 times per day. Hypnotherapy was postponed because her medical assessment was not complete. She was soon found to have nephrolithiasis, which was causing her visceral abdominal pain manifesting as nausea and vomiting. After receiving a splint, her nausea and vomiting remitted.

This case highlights the importance of evaluating all medical causes of hyperemesis gravidarum before initiating hypnotic treatment.

**Discussion and Conclusions**

It should be stressed that before embarking on hypnotherapy for hyperemesis, the pregnant woman should undergo a thorough medical evaluation. The differential diagnosis for hyperemesis gravidarum includes gastroenteritis, cholecystitis, pancreatitis, hepatitis, nephrolithiasis, peptic ulcer disease, pyelonephritis, fatty liver of pregnancy, pelvic inflammatory disease, appendicitis, and hyperthyroidism. Furthermore, clients may well benefit from a psychiatric evaluation if psychiatric comorbidity is suspected, in which case a referral to a mental health practitioner may be warranted. In addition, although the American Medical Association declared in 1958 that hypnosis is a legitimate form of medical treatment, it should be emphasized that an appropriately trained practitioner of medical hypnosis must apply this treatment.

Hyperemesis gravidarum that is resistant to medical treatment can lead to great risks for the health of the fetus and the pregnant woman, as well as lengthy and costly hospitalizations. Professionals engaged in maternity care can become legitimately frustrated and concerned with unsuccessful treatments.

Psychotherapeutic treatment often requires many sessions that could extend over weeks or even months. The woman suffering from hyperemesis gravidarum, however, requires immediate care and immediate resolution of symptoms to ensure the safety of her and her fetus. Although medications are often effective in alleviating symptoms, they often present dangers related to teratogenic influence, especially in the first trimester of pregnancy. By contrast, medical hypnosis presents no danger to the woman or her fetus, and the treatment results can be accomplished in a short period.

Medical hypnosis has received strong empirical support as a special alternative treatment modality for this medical disorder, but the technique remains underused. We hope that medical hypnosis will achieve greater exposure with health care professionals engaged in maternity care so that it will be considered as an adjunctive treatment option for hyperemesis gravidarum. We further hope that medical hypnosis will be considered earlier in the logarithm of treatments.
as an adjunctive treatment option for this disorder, ideally preventing many unnecessary hospitalizations. Medical hypnosis could also be expanded to treat common morning sickness to help women learn that they do not simply have to accept this problem as an unavoidable part of pregnancy over which they have no control. Weeks to months of great discomfort may be alleviated, allowing women to be healthier and happier during pregnancy, which can have health benefits for the developing fetus. Expanding medical hypnosis treatment to common morning sickness may also serve to prevent cases that would otherwise proceed into full-blown hyperemesis gravidarum.

References