



Published in final edited form as:

Int J Clin Exp Hypn. 2012 ; 60(1): 111–120. doi:10.1080/00207144.2011.622215.

HYPNOTHERAPY INTERVENTION FOR LOIN PAIN HEMATURIA: A CASE STUDY¹

Gary R. Elkins, Lauren L. Koep, and Cassie E. Kendrick²
Baylor University, Waco, Texas, USA

Abstract

Loin pain hematuria is characterized by chronic loin pain, hematuria, and dysuria. There are no known effective treatments for loin pain hematuria and longer-term use of analgesics and surgical options are often ineffective or associated with negative side effects. This article reports on a 17-year-old female patient diagnosed with loin pain hematuria who presented with unilateral, uncontrolled loin pain following numerous unsuccessful attempts at controlling her symptoms with traditional medical interventions—including antibiotics, opioids, and renal denervation. The patient received 8 sessions of hypnotherapy. Baseline, end-point, and follow-up measures administered included the General Health Questionnaire, Hospital Anxiety and Depression Scale, McGill Pain Questionnaire, Pain Discomfort Scale, and visual analogue measures of pain, academic interference, and social interference. At follow-up, results indicated clinically significant decreases in pain, anxiety, and depression with nearly complete remission of presenting symptoms.

Loin pain hematuria is a condition involving recurrent or persistent unilateral or bilateral loin (flank) pain, loin tenderness, microscopic or macroscopic amounts of blood in the urine (hematuria), low-grade fever, dysuria, and proteinuria, resulting in the use of pain medication and interference with activities of daily living. The cause of loin pain hematuria originates in the kidneys, and the serious physical symptoms are sometimes accompanied by psychological symptoms such as depression and anxiety (Coffman, 2009). Loin pain hematuria was first described in 1967 in 3 female patients suffering from severe flank pain and intermittent hematuria and in whom diagnostic work-up provided no explanation for the symptoms. The majority of patients diagnosed with loin pain hematuria have been female and Caucasian (Dube, Hamilton, Ratner, Nasr, & Radhakrishnan, 2006). Treatments for loin pain hematuria have included analgesia with non-steroidal anti-inflammatory drugs and opioids, prolonged courses of antibiotics, antiplatelet therapy with aspirin or sulfinpyrazone, anticoagulation with warfarin, renal autotransplantation, intraureteric capsaicin treatment, nephrectomy, and renal denervation. However, outcomes from these treatments have been mixed and many are unsuccessful in long-term pain relief. Further, high opiate doses and invasive surgical interventions for loin pain hematuria are often dangerous and associated with negative side-effects.

Thus far, treatment options for patients diagnosed with loin pain hematuria have been limited, which is problematic due to the need to address the physical and psychological symptoms. Previous studies have found hypnotherapy to be effective for pain (Dufresne et al., 2010; Eitner, Bittner, Wichmann, Nickenig, & Sokol 2010; Elkins, Jensen, & Patterson, 2007; Mackey, 2010; Kohen, 2010; Nash & Tasso, 2010; Patterson & Jensen 2003;

¹Dr. Elkins is supported by NCCAM grant 5U01AT004634 and NCI grant R21CA131795.

²Address correspondence to Gary Elkins, Ph.D., ABPP., Department of Psychology and Neuroscience, Baylor University, One Bear Place #97334, Waco, Texas, 76798. Gary_Elkins@baylor.edu.

Patterson, Jensen, Wiechman, & Sharar, 2010; Tan, Fukui, Jensen, Thornby, & Waldman, 2010) as well as for symptoms of anxiety and depression associated with medical conditions (Barabasz & Watkins, 2005; Elkins et al., 2008). Hypnotherapy may be beneficial for the treatment of the physical and psychological symptoms associated with loin pain hematuria, however to our knowledge there have not been any previous reports. The following case study describes the use of hypnotherapy to treat a patient suffering from Loin Pain Hematuria.

Case Study

Ms. K, a single, 17-year-old Caucasian female presented with uncontrolled, excruciating, constant pain in her right flank associated with loin pain hematuria. In describing the physical symptoms associated with her condition, Ms. K reported severe flank pain, inability to achieve sufficient pain control, and frustration associated with interference in her quality of life, despite numerous attempts at seeking medical intervention for her symptoms.

Ms. K's symptom onset in May 2009 was marked by spots of blood in her urine followed by the sudden onset of severe, bilateral flank pain. Initial diagnostic work confirmed hematuria, and subsequent treatment involved a course of antibiotics. Ms. K's pain persisted, and, within a week, the blood volume associated with her gross hematuria increased significantly, turning her urine completely red. She sought emergency medical treatment, which consisted of another antibiotics course and a recommendation to take up to 8 ibuprophen every 4 hours for pain so excruciating that it prevented Ms. K from attending school and precipitated her becoming a home-bound student. The high doses of ibuprophen were insufficient to control Ms. K's pain, resulting in her seeking emergency room care nine times over the course of 2 months. In addition treatment in the emergency room consisted of narcotic analgesia with medications (i.e., Fentanyl). Further, the constant need for pain relief resulted in Ms. K's developing tolerance to the narcotics and thus requiring increasingly greater doses and stronger medications. Her physical symptoms were compounded by frustration with inability to attain permanent symptom relief and disbelief from treatment providers related to the intermittent nature of her hematuria. Upon her 10th emergency room visit for uncontrolled pain, ibuprophen was discontinued and Ms. K was admitted to the hospital when blood analysis demonstrated significantly elevated creatine levels indicating acute kidney failure. During her hospital stay, a physician team examined potential sources of Ms. K's symptoms and a nephrologist determined the origin of her symptoms to be her kidneys. Upon discharge, Ms. K attempted to tolerate her pain for several weeks without NSAIDS per the advice of her treating physicians, but the severity of her symptoms restricted her to spending the majority of her time in bed and again forced frequent emergency room visits. Though at one time it was suggested that Ms. K was medication seeking, she reported disliking the effects of the medications, stating that they left her drowsy, irritable, and cloudy; that "[she] felt like [she] was on mute."

Several weeks after her hospital discharge, Ms. K saw the aforementioned nephrologist a second time and received a diagnosis of loin pain hematuria. Her nephrologist recommended treatment through a pain clinic, and once Ms. K was admitted treatment consisted of up to eight 10mg Norco and three 30mg morphine daily. On this treatment regimen, Ms. K spent up to 22 hours asleep each day, yet she continued to experience breakthrough pain and associated nausea. However, due to continued severe pain Ms. K's nephrologist recommended renal denervation, which Ms. K sought in September 2009. Initial denervation on Ms. K's right side resulted in abscess, thereby forcing wound care and delaying the operation on her left side until November 2009. Left renal denervation produced considerable pain reduction, though significant flank pain persisted on Ms. K's right side

postsurgical intervention; thus, she continued treatment in the pain management clinic and utilized significant doses of Tylenol PM to sleep.

With unrelenting pain, Ms. K returned to her nephrologist to assess treatment options. He explained that her next surgical option would be autotransplantation, the associated risks of which included the inability to carry a child to full term. Due to concerns about these severe side effects the patient was then referred for nonpharmacologic treatment (hypnosis) for symptom management.

Measures

At intake, the patient was administered the General Health Questionnaire (GHQ28), Hospital Anxiety and Depression Scale (HADS), McGill Pain Questionnaire, Pain Discomfort Scale, and visual analogue measures of pain, academic interference, and social interference. These instruments were administered at baseline, at the end of treatment (five months), and 12-month follow-up.

General Health Questionnaire (GHQ28)

The General Health Questionnaire (GHQ28) is a 28-item self-administered screening questionnaire designed for use in consulting settings aimed at detecting individuals with a diagnosable psychiatric disorder. It covers two major areas of concern for treatment providers: the individual's inability to carry out his or her normal healthy functions, and the appearance of new distressing phenomena or experiences. There are four subscales within the GHQ28: somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression. However, a general factor has been found to account for 32–37% of variance in scores, with depression and anxiety accounting for 3.3% and 2.1% of the variance respectively. Thus, scale scores have highest utility for investigators with special interests who wish to measure particular dimensions of symptomatology. The total score of the GHQ28 will be used for the current case study. Finally, The GHQ28 has demonstrated adequate validity and the similarity between rotated solutions of multivariate analyses drawn from multiple populations suggests that the scales are also reliable and stable (Goldberg & Hillier, 1979).

Hospital Anxiety and Depression Scale (HADS)

The Hospital Anxiety and Depression Scale (HADS) is a 14-item instrument for identifying the two most common types of psychological disturbance in medical patients: anxiety and depression. Reliability results demonstrate satisfactory item-total correlations within the two subscales. Internal consistency has been found to be $\alpha = 0.80$ for the Anxiety subscale and $\alpha = 0.81$ for the Depression subscale. Retest reliability demonstrates a high correlation ($r > 0.80$) after up to two weeks, with decreases in reliability after longer time intervals. The mean correlation between the two subscales is $r = 0.63$, demonstrating that subscale scores are clearly correlated in most patient groups. As noted, one of the main purposes of the HADS is to identify psychological disturbances in medical patients. Results from that HADS provide a dimensional rather than a categorical representation of mood (Herrmann, 1997).

McGill Pain Questionnaire (LF-MPQ)

The McGill Pain Questionnaire (LF-MPQ) is one of the most widely used instruments for the measurement of pain. It provides valuable information on the sensory, affective, and evaluative dimensions of the pain experience and is capable of discriminating among different types of pain problems. The LF-MPQ takes only five to ten minutes to administer and is composed of a chart for bodily regions and descriptive words for pain in each area.

The MPQ is designed to assess the multidimensional nature of pain experience and has been demonstrated to be a reliable, valid, and consistent measurement tool (Melzack, 1987).

Pain Discomfort Scale

The Pain Discomfort Scale is a 10-item instrument designed as a brief and psychometrically sound measure of pain affect. Evidence supports the reliability and validity of the measure. Internal consistency has been found at $\alpha = 0.77$ and correlation with one-month follow-up administration is $r = 0.64$. Factor analysis of the Pain Discomfort Scale revealed two main factors in the instrument, one being a clear pain intensity factor and the other representing pain affect. Overall the Pain Discomfort Scale is a reliable and valid tool with high internal consistency that is distinct from measures of pain intensity and is closely associated with the emotional dimension of pain (Jensen, Karoly & Harris, 1991).

Visual Analogue Measures

Current pain level was self-rated by the patient on a visual analogue scale with a length of 100 millimeters. Score was determined by measuring the point that the patient marked on the scale, resulting in a score between 0 and 100.

Extent of pain interference with school was self-rated by the patient on a visual analogue scale with a length of 100 millimeters. Score was determined by measuring the point that the patient marked on the scale, resulting in a score between 0 and 100.

Extent of pain interference with social activities was self-rated by the patient on a visual analogue scale with a length of 100 millimeters. Score was determined by measuring the point that the patient marked on the scale, resulting in a score between 0 and 100.

Hypnotherapy Intervention

After the initial consultation, Ms. K was seen for eight 1-hour hypnotherapy sessions over 5 months. The goals of the intervention were reduction and management of pain, discomfort, and associated symptoms. At each session a standard hypnotic induction was completed following a transcript outlined by Elkins and Handel (2001). Suggestions for pain management included suggestions that Ms. K would be able to “become so deeply relaxed that any feeling of discomfort would fade to the background.” She was able to achieve feelings of relaxation and responded to imagery to deepen relaxation by visualizing “walking down a staircase” and at the bottom of the stairs seeing “a beautiful lake and feeling calm, relaxed and very comfortable.” Because reducing Ms. K’s pain symptoms was a primary goal of treatment, suggestions were made for her experience of pain to become “less and less severe, every day.” It was suggested that during hypnosis she would feel greater comfort and “no pain, the deeper the relaxation the greater the comfort” and for her to “experience greater control over any pain that remains.” Additionally, the clinician provided suggestions for Ms. K. to “be able to sleep well and to feel calm most of the time.” In addition, because there was a need for reduction of the overall symptoms it was suggested that she “imagine a time in the future when she is no longer bothered by loin pain or symptoms.” Each session of hypnosis also involved suggestions for comfort, calmness, and a sense of well-being. Additionally, each hypnotherapy session included the suggestion that Ms. K’s body would function in such a way that her immune system would improve and the symptoms of her loin pain hematuria would become less. Examples of such suggestions include, “allowing comfort and healing to become more and more complete” with each practice of hypnosis; and “your immune system will improve and your kidneys and body will return to normal functioning.” In order to target Ms. K.’s symptoms of interference in daily life from pain, the clinician suggested that Ms. K. would “be able to return to school as symptoms of pain and anxiety become less and less” and that she would “feel a sense of

confidence and well-being and feelings of control over her body.” In addition to the weekly hypnosis sessions with the clinician, Ms. K. was provided with recordings of the hypnosis sessions. She was asked to listen to the recorded hypnosis sessions daily between sessions or as often as desired, and she was instructed in self-hypnosis to achieve relaxation and for pain management.

Results

At posttreatment and follow-up, results indicated clinically significant decreases in pain, anxiety and depression with nearly complete remission of presenting symptoms. Ms. K’s score on the General Health Questionnaire (GHQ28) improved by 84.7% from baseline to post-treatment, and by 98.3% at 12 month follow-up. This indicates a clinically significant reduction in symptoms. Her score on the Anxiety subscale of the Hospital Anxiety and Depression Scale (HADS) improved by 35.0% from baseline to end of treatment, and by 100.0% by her follow-up session. Similarly, her score on the Depression subscale of the HADS demonstrated a 73% reduction in symptoms from baseline to end of treatment and a 100% reduction in symptoms by 12-month follow up. These changes suggest symptoms of anxiety and depression that continued to improve after treatment as she continued to practice self-hypnosis. Additionally, Ms. K’s PRI(T) score on the McGill Pain Questionnaire improved by 73.7% from baseline to endpoint, and by 100.0% at follow-up. Further, her score on the Pain Discomfort Scale improved by 64.7% from baseline to endpoint, and by 100.0% by follow-up. Improvement on this instrument indicates lessening of pain intensity and negative affect associated with pain. Ms. K’s scores on several visual analogue measures also demonstrated marked improvement. On a visual analogue scale of pain level, Ms. K’s score improved by 80.5% from baseline to endpoint and by 97.5% by her follow-up session. On a visual analogue scale of academic interference, her score improved by 100.0% from baseline to endpoint and remained in complete remission at follow-up. Finally, on a visual analogue scale of social interference, Ms. K’s score improved by 83.9% from baseline to end of treatment and by 100.0% at 12 month follow-up. Thus Ms. K reported that her pain had almost entirely abated by follow-up and she was no longer experiencing interference with her academic or social activities of daily living.

Discussion

The patient’s improvement suggests that hypnotherapy may be a promising intervention for the physical and psychological symptoms associated with Loin Pain Hematuria. In addition to providing physical relief, hypnosis provides a safer alternative for health care providers working with this disease. Furthermore, hypnosis is non-invasive and offers patients a treatment option that presents little to no risk of harm. Qualitative data gathered from this case study demonstrate that one particularly helpful aspect of hypnosis is that it restores a sense of control over one’s own symptoms. This sense of control is especially valuable for individuals coping with chronic disease or illness. Hypnosis helped this patient to manage her symptoms of loin pain hematuria and improve her quality of life. These findings are consistent with treatment outcomes of other pain conditions using hypnosis (Mackey, 2010; Tan, et al. 2010; Dufresne, et al., 2010; Patterson, et al., 2010; Eitner, et al., 2010; Kohen, 2010; Nash & Tasso, 2010).

Limitations

Results from this case study are encouraging; however, the limited generalizability of a single case study should be taken into account. Further research will be useful in clarifying hypnosis’ clinical utility with this disorder.

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Table 1

Reduction in Symptoms Pre- to Posttreatment and at 12-Month Follow-up

Measure	Pre- Treatment Rating	Post- Treatment Rating	12 Month Follow- up Rating
The General Health Questionnaire (GHQ28)	59	9 (84.7%)*	1 (98.3%)*
Hospital Anxiety and Depression Scale (HADS)	28	14 (50.0%)*	0 (100.0%)*
HADS Anxiety Subscale	17	11 (35%)*	0 (100%)*
HADS Depression Subscale	11	3 (73%)*	0 (100%)*
McGill Pain Questionnaire (PRI(T) score)	118	31 (73.7%)*	0 (100.0%)*
Pain Discomfort Scale	34	12 (64.7%)*	0 (100.0%)*
VAS: Pain	82	16 (80.5%)*	2 (97.5%)*
VAS: academic interference	99	0 (100.0%)*	0 (100.0%)*
VAS: social interference	87	14 (83.9%)*	0 (100.0%)*

* Percentage change from baseline scores.