



Use of hypnosis for the placement of a midline catheter in a patient at the end of life

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Case Report

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Abstract

Objective. The case of a non-oncological patient at the end of his life, admitted to a Palliative Care Unit (PCU), is presented. After a failed attempt to place a central venous catheter (CVC) and another placement of a peripherally inserted central catheter (PICC), the patient exhibited high anxiety regarding a midline catheter (MC) and refused its placement, even though this was necessary for the administration of intravenous drugs to control dyspnea and other complex symptoms that he presented.

Method. An intervention through clinical hypnosis for successful MC placement and symptom control is described.

Result. Through clinical hypnosis and interdisciplinary teamwork, it was possible to place a MC, necessary for symptomatic control of a complex patient.

Significance of result. This case exemplifies hypnosis as a simple procedure that is easy to apply, accepted by the patient, and effective in the implementation of invasive procedures and symptom control in PCUs.

Introduction

Palliative care in specialized units faces a complex psychological symptomatology that alters both the general well-being of patients and their caregivers (Kissane et al., 2001; Chochinov, 2006; Landry et al., 2018). Hypnosis is now being applied in several clinical settings for the management of pain and anxiety related to invasive tests (Lioffi, White & Hatira, 2009; Brugnoli, 2016; González-Ordi, 2005; Lioffi, White & Hatira, 2009; Jensen & Patterson, 2014; Alladin, 2012), pain management during labor and childbirth (Madden, Middleton, Cyna & Matthewso, 2011), or for increasing satisfaction with subcutaneous venous port placement (Sterkers, Chabrol, De Troyer, Bonijol, et al., 2018; Hoslin, Motamed, Maurice-Szamburski, Legoupil, Ponsa, et al., 2019).

The midline catheter (MC) is a very useful way to administer drugs to palliative care patients (Caparas & Hung, 2017). A MC can be used when the placement of a central venous catheter (CVC) is not possible due to the clinical situation of the patient, or with patients with difficult access to peripheral intravenous lines, or for the administration of a concrete intravenous treatment (Adams et al., 2016).

The objective of this study is to present the use of clinical hypnosis as an intervention tool for the placement of a MC in a patient at the end of life.

Patient identification and reason for consultation

FM is a 52-year-old male diagnosed with chronic obstructive pulmonary disease (COPD) at the end of life. His medical history includes a diagnosis of HIV for the last 23 years. He presented with an addiction to parenteral drugs from which he had rehabilitated 10 years ago, chronic alcoholism, and mixed chronic liver disease. The functional limitations caused by dyspnea, poor medication control at home, and his high level of anxiety have required several previous hospital admissions.

Evaluation

Upon entering the PCU, FM was informed of his clinical diagnosis, prognosis, and disease evolution. He was conscious, oriented, collaborative, without alterations of thought or perception. He also had insomnia with nightmares related to choking situations. His suffering was associated with his illness and deterioration. He also exhibited high levels of anxiety, a great

Table 1. Outcomes of assessment tests

Test	Subscales	Upon admission	A month after admission	A week before death
Detection of Emotional Distress Scale	Cut point 9	13	10	3
Edmonton Symptom Assessment System-r	Pain	7	5	7
	Fatigue	2	5	3
	Nausea	0	0	3
	Depression	4	5	4
	Anxiety	6	4	6
	Drowsiness	0	0	5
	Appetite	10	10	5
	Well-being	4	7	6
	Dyspnea	8	5	8
	Sleep	8	4	3
	Other: fear	9	7	4
Suggestibility Inventory	Dreaming/fantasize	5		
	Absorption	65		
	Emotional involvement	95		
	Influence by others	90		
	Suggestibility (overall score)	60		

Detection of Emotional Distress Scale (Maté J, Mateo D, Bayés R, et al, 2009). Edmonton Symptom Assessment System (ESAS-r) (Carvajal A, Martínez M & Centeno C, 2013). Suggestibility Inventory (SI) (González-Ordi, H & Tobal M, 1999).

fear of hospitalization and death by suffocation. He rejected the MC placement procedure. The MC was the intervention tool chosen by the medical team as the most appropriate for applying intravenous drugs in order to relieve symptoms, which was the main objective of treatment for this patient. FM had had two previous attempts to place venous catheters. The first time in the operating room, several attempts were made to place a CVC, but its placement was not possible due to the uncooperative and anxious behavior of FM. During another hospital admission, an attempt was made to place a PICC with the same result. FM reported that after 50 minutes, the placement of the device was not possible. In both cases, FM could not opt for complete sedation, given the circumstances of his illness. The vasoconstriction associated with his anxiety hindered both procedures and increased FM's fear of the test. FM verbally stated that he suffered retrospective scenes of the experienced situations that increased his anxiety, and thus rejected a new attempt, although his desire was to be able to undergo the intervention to improve control of his dyspnea. These reasons led the team to work with FM on fear, anxiety control, and the improvement of communication to be able to perform the MC placement. His level of suggestibility allowed for the use of clinical hypnosis. The measurements of suffering and symptoms were very high at the time of admission but improved after the intervention, although his dyspnea worsened after the intervention in the last week of his life (See [Table 1](#)).

Therapeutic objectives, intervention plan and treatment

The objectives of the psychological intervention aimed toward facilitating the placement of the MC through clinical hypnosis were:

1. Control of anxiety, useful for performing needle insertion and reducing the anxiety level that hinders symptomatic control and communication;
2. Psychoeducation regarding medical procedures to be used during his hospitalization;
3. Search for confrontation strategies useful for confronting his death process;
4. Trauma management for the CVC and PICC placement attempts; and
5. Training for the needle insertion.

Hypnotic treatment for the MC placement

Ten sessions of clinical hypnosis were completed. In the first one, the procedure of clinical hypnosis was explained, showing what it consisted of, and correcting erroneous conceptions, also motivating and making the patient responsible for his treatment and confirming the objectives to be achieved. The following nine sessions with hypnosis were carried out following the standardized hypnotic protocol according to González-Ordi (2013), composed of the following phases: pre-inductive, application of hypnotic induction techniques, administration of specific suggestions, and post-hypnotic phase. For the induction phase, the ocular fixation technique (Braid method) was used (González-Ordi, 2013). The exact language used can be seen in [Table 2](#).

In the first two sessions of hypnosis, the mountain descent technique (González-Ordi, 2013) was used as a stabilization and reinforcement strategy. In the following seven sessions, a shorter stabilization with a countdown from 10 to 0 was used, given the high involvement of the patient.

The specific suggestions used, according to the proposed objectives, are detailed below:

Table 2. Exact wording used in the intervention with clinical hypnosis

Indication	Verbatim
Induction	<p>The therapist will begin by saying: <i>"Now look at my fingers and keep your attention on them all the time. I'm going to keep my fingers slightly above the level of your eyes. This can cause you a slight tension while looking. Do not worry. Now, look at my fingers... very well. Your breathing is getting deep and relaxed... deeper and more relaxed... you begin to notice that while you keep your gaze on my fingers, your eyes are beginning to feel tired... very tired... your eyelids are heavy... They weigh more and more. As you continue to look at my fingers, your eyelids become increasingly heavy and your eyes are increasingly tired and tend to close... tired and heavy... tired and heavy... tired and heavy... the fingers are coming towards you ... your eyes are tired and uncomfortable... tired and uncomfortable... your eyelids begin to blink heavily... it is increasingly difficult to keep them open... yes... your eyelids are closing while I move my fingers towards your forehead... tired and heavy... getting heavier and heavier... your eyes are watery... almost as if they were crying... they want to close... it's getting harder and harder to stare at my fingers... your eyes are tired and your eyelids feel heavier and heavier and they are closing... closing... closing... your eyes are almost closed... your eyes are closed... let them rest.. you feel them very heavy... relaxed... very relaxed... the discomfort has disappeared, and you now find yourself more profoundly relaxed than before... breathe slowly and calmly... free of any tension... now you are entering a good level of hypnosis and can respond to my suggestions perfectly... without any effort... calm and relaxed... free of any tension, anguish or worry..."</i></p>
Decreasing the level of anxiety	<p><i>"I would like you to pay attention to the signals that your body sends... how are you?... that tension is uncomfortable... would you like to start decreasing it? Well, through my voice and your willpower, we will dissipate that tension that bothers you. Let's pay attention to your breathing, to how the air enters and exits with ease... You may want to imagine that you are in the forest where you used to go with your father... What is it like?... What do you see?... Those tall trees that shelter life... do they grant you shade?... That shade refreshes us, makes us feel better within the forest... now in that shelter... what does it smell like?... the smell of rosemary... every time we breathe we noticed that smell, it invades you... How does it make you feel?... It's a smell that is present in this scene and you can go back to it whenever you want. The calmness that this smell transmits to you is what we are going to keep in our mind, every time the air enters and exists from us, the smell of rosemary is more intense and pleasant... as we continue to breathe, tranquility invades us... how are you now? Very well, through my voice and your will power, you have reached a state of intense calmness..."</i></p>
Narrative reconstruction of the disease	<p><i>"Now maybe you would like to go back to the forest where you used to go hunting with your father... can you see it?... What does it smell like?... are they pleasant smells?... You are surrounded by those trees, bushes, flowers... that you remember and evoke in you a pleasant sensation of well-being... You are in a familiar place, calm... how is your breathing?... as we go into the forest, your breathing becomes slower, calmer... How are you?... This forest known to you has some dangers, some things that we cannot control... can you mention one of them? what does it do to you? ... They are possibilities, we do not know whether they will happen or not at this moment, maybe you can look around and perceive again the environment of the forest, the security that it transmits to you and the calmness that it generates in you... How do you perceive now the things that we cannot predict?... From that calmness, we look towards the future with serenity, with the ability to decide how we want to live the experiences that may come... How can we face those things that are yet to come? ... as we do in the forest, being attentive to noise, to smells, waiting for signals... from a position of calmness and safety... You will have to cross rivers, go through bushes... what other difficulties do you think you will have to face?... Remember that through my voice and your will power, you can look at these difficulties from the calmness and serenity that your forest generates in you... difficulties that worry, even frighten, we may not be sure of being able to face them... do you remember moments in your life in which you thought this way when facing a difficulty?... which ones?... what did you do?... Can you face it alone or do you want to do it with someone?... Great, now you also have your team that will be by your side during the whole process, can we help you?... That is it, could we do that in the face of the present difficulties?... In the past, it was useful, and you have arrived at this moment wiser, more experienced and looking back with all your issues resolved... even though you thought that it was not possible to overcome those problems, you worked towards recovering calmness and security in yourself and in your decisions... Once again, moments of joy appeared... Now we can face the illness, the hospitalization, as you have in the past and you can once again reach moments of joy, through my voice and your will power, you will transform the uncertainty into opportunity... just like when you listen carefully in the forest... there is an unrecognizable sound, leaves move, you cannot see what is going on... you breathe in, you feel the security that your forest gives you, your inner calmness and... it can be a colorful bird that flies high and watches from the distance all those things that you will overcome... As you have done many times before in your life, it will be a walk in the distance, a light and serene flight to that place you wish to be in, where nothing can disturb you anymore."</i></p>

a) Decrease and manage the level of physiological activation.

Suggestions aimed at relaxation and well-being were used, beginning with the suggestion of being in a forest in which sounds and smells transported FM to moments of extreme calmness (Table 2).

b) Search for useful confrontation strategies geared toward the death process and the associated fears.

The focus was on the strategies to treat the symptoms, the difficulties presented, and the proximity of death, using hypnotic suggestions: “being in a forest full of possible dangers” where FM proposed the strategies he would use in these situations, which would then be carried to the present in his struggle against the dangers of his illness and the process of death. From this suggestion, he used as coping tools: prudence in the face of decisions that implied his health or well-being, calmness to help with the waiting, and the need to request help to overcome the most complicated moments. Positive expectations were promoted toward the change and recovery of these tools. This improved the perception of control over his situation and communication with his healthcare team. The literal text of the “metaphor of the forest” can be seen in Table 2.

c) Trauma management for the CVC and PICC placement attempts.

Three sessions were dedicated to the gradual exposure to the stressful situations experienced, diminishing with the tools previously learned the emotional intensity of both events. A narrative reconstruction of the lived events related to the previous needle insertions was carried out and suggestions of emotional control were given.

d) Training for the placement of the MC puncture.

First, psychoeducation on the MC placement was carried out and FM’s doubts regarding the protocol and the differences with the previous attempts were resolved.

A clinical hypnosis session of exposure to the MC placement was held to which the specific suggestions of emotional control, decrease of activation, and success of the test were associated through FM’s explicit collaboration. A suggestion previously agreed upon: “the arm is like a knife block, easy to penetrate and always leaves the knives correctly placed” was applied to help him.

e) Session for the MC placement, jointly with the nursing team.

It began with relaxation suggestions and the administration of 5mg of midazolam subcutaneously 15 minutes before starting the procedure. During the ultrasound, the suggestion of the rubber knife block was initiated (adaptable and easy to penetrate).

Suggestions of pressure and relief were applied, associated with the success of the technique. Two punctures were needed for the MC placement. The procedure lasted approximately 40 minutes from the start of the hypnotic induction until the moment the medical staff left the room. At all times, FM was calm and cooperative, and at the end of the implementation, he expressed his satisfaction.

Results

The placement of the MC was possible despite the difficulties expressed during the evaluation. The MC did not need to be repositioned or caused any complication, thus remaining in place until the death of the patient, 16 days later. This new route of drug administration, intravenous drug adjustment and emotion management allowed FM to maintain physical symptoms at acceptable levels during the week prior to his death. Pain, anxiety, insomnia, and fear were controlled symptoms one week before his death. Dyspnea remained a difficult symptom to control. Nevertheless, it did not transform into a refractory symptom that required sedation.

Discussion

The placement of a MC does not usually generate emotional impact on the patients to which they are applied (Bortolussi, et al., 2015). However, there are cases in which previous conditions or psychological difficulties make the procedure impossible. In this study, it has been shown that clinical hypnosis is a simple intervention that is easy to apply, accepted by the patient, which solves the phobic behaviors associated with puncture procedures and improves the patient’s general well-being, as shown in the case of FM, who was able to achieve better control of his symptoms and greater comfort at the end of his life.

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