

HYPNOSEDATION FOR CATARACT SURGERY WITH IDEO-DYNAMIC HYPNOTIC INDUCTION, AS AN APPROACH: A CASE SERIES OF TWO PATIENTS

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Abstract

This case series involving two patients highlights clinical hypnosis as an effective adjunct in anaesthesia for cataract surgery. The first patient was a 55-year-old lady, with the American Society of Anaesthesiologists (ASA) classification 2, who was scheduled for cataract surgery for her left eye. The second patient was a 34-year-old man, ASA 2, with an underlying retroviral disease, hypertension and a prolapsed intervertebral disc with spinal stenosis of the 3rd to 7th cervical vertebrae, and he was scheduled for cataract surgery in his right eye. These patients were anxious and they responded positively to the proposal of utilising clinical hypnosis as a mode of sedation (hypnosedation) for surgery. Hypnotic induction was achieved with an ideo-dynamic induction, which was described as a non-ritualistic method of hypnosis. Both reported that they experienced profound relaxation during the procedure and were able to respond to the surgical team during the surgery.

Keywords: Sedation, Hypnosis, Hypnosedation, Cataract surgery

Introduction

Several hypnotic approaches have been applied in surgery, including thyroidectomy, parathyroidectomy, plastic surgery, obstetrics and gynaecological operations, to produce sedation and analgesia (1-3). There have been several advantages for some patient's hypnosis in these surgeries, reducing or eliminating pharmacological anaesthesia and sedation (4-6).

Phacoemulsification is characterized by a smaller incision and reduced surgical time, and has become the standard operative method for cataract surgeries. Topical anaesthesia is the standard method of anaesthesia in phacoemulsification surgery, due to the advances in equipment and surgical skills. However, local anaesthesia involving the retrobulbar or peribulbar approach is linked with risks such as chemosis, ecchymosis, retrobulbar haemorrhage, and globe penetration or perforation. In addition some patients also reported pain during phacoemulsification with topical anaesthesia (7, 8).

Hypnosis is a process that can modulate conscious experience by shifting the focus of attention and mitigating pain, relaxing the body, and reducing anxiety (9). There have been reports using hypnosis as a sole approach, or as an adjunct in providing anaesthesia to patients. In this case report, we share two cases on the effectiveness of

hypnosis in managing pain and anxiety associated with cataract surgery by avoiding general anaesthesia using a novel approach to hypnotic induction for the surgical procedure.

Clinical hypnosis was used as a modality in these patients because both patients needed cataract surgery and preferred to avoid general anaesthesia (GA). These patients were initially planned for GA because of severe anxiety with a numerical rating scale (NRS) 8/10, for the first patient, and the second patient 9-10/10. However both patients were offered hypnosedation based on reports of its successful application as the sole anaesthetic.

Case history

A 55-year-old woman, identified as patient A, with underlying diabetes mellitus and hypertension, well controlled with medications, was planned for the left eye cataract procedure. She had surgery on the other eye under topical anaesthesia a month before this scheduled procedure. The patient had been anxious and had not tolerated the procedure well. Her apprehension of pain for the coming surgery was more elevated. Her anxiety and fear of the various complications concerning the surgery were discussed with her ophthalmologist. The patient was planned for the cataract surgery under general anaesthesia.

On the day of the surgery, during routine preoperative assessment by the anaesthesiologist, the patient described her experience during her earlier eye surgery when she had become very anxious and had developed a claustrophobic sensation as the surgical drapes were placed. During the pre-anaesthetic interview the day before surgery, the patient said that she would prefer an option that could relieve her anxiety for the procedure and with an approach where she could still experience the surgery more calmly. Consequently, she responded positively to the proposal of utilising perioperative hypnosis. During the preoperative visit, the patient's pain perception of the cataract surgery was NRS 8/10.

Case 2

This was a 34-year-old male, identified as patient B, with underlying hypertension, prolapsed cervical intervertebral disc and retroviral disease on highly active antiretroviral therapy (HAART). In addition, the patient had severe dermatitis which required him to be on steroid therapy. As a result of the high dose and prolonged usage of oral steroids, he developed a dense senile cataract in his left eye. Possible general anaesthetic (GA) risk for this patient included postoperative paraplegia due to acute compression of the spinal cord secondary to the protrusion of cervical disc. This is a rare but documented complication. In addition, a known risk with GA with patients on HAART therapy is an exacerbation of the stress response and impairment of immune function. With this in consideration, a method to reduce the patient's anxiety and pain for the surgery, with hypnosedation was offered to the patient.

In the ward, the patient was seen by the anaesthesiologist. He had an NRS 9-10/10, indicating a high anxiety score. This was associated with raised systolic blood pressure 160-180 mm/hg with a diastolic range of 100-110 mm/hg, compared to his previous resting blood pressure, noted from the clinic follow-up, which was in the normal range.

Methods

The patients were assessed in the ward for preoperative fitness. Two hours before the surgery, the patients were given Alcaine (propracaine hydrochloride) 0.5%, Mydrin 2.5% (phenylephrine ophthalmic), Mydracyl (tropicamide) 1% eye drops for the eye for surgery.

The anaesthesiologist had a detailed discussion with both patients, concerning the anaesthetic plan. Their concerns were discussed. Both patients have similar concerns about the side effects of general anaesthesia for surgery because they were well aware that phacoemulsification was commonly done as a day-care procedure under topical anaesthesia.

Patient A was familiar with the concept of hypnosis from her general reading. Therefore details of clinical hypnosis for this procedure were carefully explained and informed written consent was obtained. If the patient became uncomfortable during the procedure and required

additional intravenous sedation or conversion to general anaesthesia, standard anaesthetic care would be given to the patients without compromising their safety.

When the patients were seen in the waiting area of the operative bay, verbal and written permission were obtained from the patients to teach them methods of self-hypnosis by the anaesthesiologist. This was the standard hypnotic induction method described in many works of literature for hypnosis in the preoperative settings followed by a series of steps which included a formal induction process of having the patient relax and proceed to progressive relaxation steps (10,11). Once the patient was in a satisfactorily relaxed state, suggestions in relation to well-being and relaxation would be introduced to the patient. However, in this case series, the anaesthesiologist used a hypnotic intervention termed the non-ritualistic hypnosis method whereby the patients' ideodynamic responses were used as the focus of a hypnotic intervention (12), and assisted into relaxation.

Ideodynamic response refers to a [psychological](#) phenomenon in which a subject experiences sensation without being actively aware that they had caused it. This approach empowers the patients to participate in the process fully with greater cooperation to achieve a successful hypnotic state. There is a general belief that hypnosis is a technique where a patient's conscious awareness and autonomy are taken away. Therefore, performing a technique that allows the patient an awareness of the process, compared to the previously described hypnotic techniques, gives the patient a sense of self-control regarding their own healing process.

The self-hypnosis steps took the patient a total of 30 minutes to complete. The patient was instructed to repeat these steps twice, for a total of three times and the time taken for the patient to get into a comfortable and relaxed state were shorter. The patient was reminded that pain and suffering can be filtered by experiencing numbness (13).

Once the patients were ready and feeling more at ease with their self-hypnosis skills, the patients were wheeled into the operating room and standard patient monitoring devices were placed on the patient. As the patients were being prepared by the surgical nursing team for the surgery, the patients were instructed to keep practising their self-hypnosis routine. Both patients reported the same NRS 0/10 of anxiety throughout their experience in the operating room. Both patients were calm and cooperated well with the surgeon for the surgery.

The patients were given subconjunctival Vigamox (moxifloxacin) and subconjunctival lignocaine infiltration during the surgery. All the patients were comfortable and able to obey the surgeon's instructions. Total surgical time was 15 minutes and the patients continuously managed their relaxation state well. Throughout this period the patients' anxiety and pain were satisfactory at NRS 0/10. At the end of the procedure, the patients returned to the ward, and they were able to take their meals immediately.

Both were discharged from the hospital with no further complications, two hours later.

Discussion

Substantial variability exists in individuals' responses to nociceptive stimuli and responses to hypnotic intervention. This gives rise to the perception of resistance in hypnosis. To overcome this dilemma, utilising the patient's active participation in hypnosis, by eliciting a hypnotic phenomenon at an early stage, may prove to be.

There is significant evidence in medical literature hypnosis reduces medication usage and increases patient's satisfaction and describes its effectiveness in high-risk patients in unusual situations (14). Clinical hypnosis in ophthalmic surgery has been documented and several cases of successful application of hypnosis have been reported (15).

Short-acting benzodiazepines such as midazolam or remifentanyl could have been used for appropriate sedation levels, rather than hypnotic sedation. However, for both these agents, it can be complicated in some patients with respiratory depression while maintaining a constant level of sedation. Avoiding respiratory depression with an acceptable level of sedation, the patient may be inadequately sedated and becomes restless and anxious during surgery. This may cause surgical complications for patients who are restless and become uncooperative. Dexmedetomidine is another pharmacological option but has the same concerns as benzodiazepines, with lesser respiratory complications, but with more pronounced cardiovascular effects. Several studies have established that, during interventional radiological procedures, more patients with intravenous conscious sedation exhibited oxygen desaturation and/or required interruptions of their procedures for hemodynamic fluctuation compared to patients with self-hypnotic relaxation. The limitations in acquiring consistent results with hypnosis in surgery are the lack of standard scales to demonstrate hypnotic susceptibility and the individual differences in hypnotic susceptibility.

Conclusion

Clinical hypnosis as a form of hypnosedation proved to be a viable option as an anaesthesia mode in these patients and should be considered for similar patients who are undergoing minor surgery. With ideo-dynamic hypnotic induction, applying this novel technique, as an approach with hypnotic principles, focusing on the patients to create their own positive feedback loop, would ensure a successful self-hypnosis. This strategy does not involve the conventional method of hypnosis. The ideo-dynamic hypnotic induction method involves strategies, eliciting hypnotic phenomenon at an early stage by identifying patient's hypnotic loop obtained during initial conversation with the patient during preoperative assessment and utilising that loop to create more loops leading the patient to a desired clinical outcome.

Acknowledgements

We would like to acknowledge the staffs of Columbia Asia Hospital-Klang, in helping us with the cases above.

Financial Support

The authors declared that this case study has received no financial support

Competing Interests

The authors declare that they have no competing interest.

Informed Consent

Written informed consent was obtained from patient who participated in this study.

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