

## Hypnosis as an Anesthetic in Pediatric Ophthalmology

LEONARD N. LEWENSTEIN, M.D.\*

The successful use of hypnosis as an anesthetic technique is well documented. In the 1840's, James Esdaile, a British surgeon, performed more than 3,000 minor and 300 major operations using hypnosis as the sole anesthetic.<sup>1</sup> In recent years hypnoanesthesia has been effective in many major surgical procedures, including partial pulmonary lobectomy and closed mitral commissurotomy,<sup>2</sup> and hypnosis has been used successfully in many cases where general anesthesia is contraindicated.<sup>1-3</sup>

Certain operative procedures impose on the anesthetist unusual demands that are not easily met by conventional pharmacologic anesthetic techniques. One example is the postoperative adjustment of sutures placed in the extraocular muscles during strabismus operations. Such procedures allow the surgeon to reassess the alignment on the first postoperative day and make any adjustment deemed necessary. Anesthetic requirements for the suture adjustment include patient cooperation, analgesia, facial relaxation, and immobility of the extraocular muscles. Most important, the patient must be alert and free of any sedative, anesthetic, or postoperative medication that might interfere with accurate adjustment.<sup>4</sup> Although these requirements can be met in carefully selected adults, the lack of a suitable anesthetic technique has generally precluded the use of this surgical procedure in children. This report discusses two cases in which hypnosis was used to facilitate postoperative suture adjustments in children.

## REPORT OF TWO CASES

*Patient 1.* A healthy 11 year-old boy entered the hospital for an adjustable rectus muscle recession. During the preoperative visit an indirect hypnotic induction procedure<sup>5</sup> was utilized to produce a hypnotic trance. To help relieve anxiety resulting from fear of the unknown, the entire sequence of preoperative, operative, and postoperative events was then described. During this discussion hypnotic suggestions were interspersed in order to promote comfort and relaxation, a good night's sleep, reduction or elimination of premedication, decreased awareness of operating room noises, analgesia, smooth and comfortable anesthetic induction and emer-

gence, postoperative comfort, ease of deep breathing, and rapid return of appetite. Suggestions for analgesia and immobility to facilitate suture adjustment were given by instructing the child to visualize a row of red lights controlled by switches. He was told to imagine these lights representing the muscles and sensations to his eyes; thus, when he switched off the lights his eyes would remain motionless and perfectly comfortable. A posthypnotic suggestion was given that when his wrist was lifted by the anesthesiologist he would re-enter a trance, thus obviating the need for future hypnotic inductions.<sup>6</sup> He underwent the strabismus operation under general anesthesia, with placement of an adjustable suture.

On the day of the suture adjustment the unmedicated child was returned to the operating room, where measurement of ocular alignment was performed. A trance was induced by lifting his wrist, and he was instructed to switch off the lights. A lid speculum was inserted, and the preplaced suture in the lateral rectus muscle was manipulated and adjusted. The trance was terminated and measurements repeated. Trance was reinduced, the lid speculum reinserted and final suture adjustment and fixation were completed. The child was given suggestions for continued comfort and the trance was terminated. The entire procedure lasted approximately 20 minutes, during which the child appeared comfortable and had complete immobility of extraocular muscles, eyelids, and facial muscles.

Initially the child had been extremely anxious and frightened, but he became remarkably calm and relaxed following his initial hypnotic experience. He slept well the evening before operation and was quite comfortable postoperatively. He had good recall of the entire procedure, and although he would not choose to have the operation repeated, he said that he was comfortable throughout. The surgeon stated that had he not utilized an adjustable suture, reoperation would have been necessary because initial correction of the strabismus was inadequate.

*Patient 2.* The second case involved a healthy 6-year-old boy undergoing a similar procedure. During the preoperative visit numerous attempts to induce a trance were unsuccessful; however, good rapport with the child was established. The strabismus operation, with the placement of an adjustable suture, was performed with general anesthesia induced by mask.

On the day of suture adjustment, preparations were made for general anesthesia (despite its limitations) since a satisfactory hypnotic state had not been attained preoperatively. The child was given the anesthetic mask to practice holding over his face (the mask was not connected to any anesthetic device) and he made the comment that the mask "smelled funny just like it had yesterday." This remark was seized upon as a rationale to attempt hypnosis once again. The patient was told that it did smell funny just like yesterday, and that he was to go to sleep just like yesterday. This statement was repeated numerous times with further suggestions for relaxation, analgesia, and eye closure. Within 10 minutes a satisfactory trance had developed. The posthypnotic suggestion that when the surgeon made his adjustments the child would be able to be completely still and fix his eyes on an object without moving or blinking was made.

Measurements of ocular alignment were performed with the child awake, and since no further adjustment was deemed necessary, final suture fixation was begun. The child was told to fix his eyes on a toy held by the anesthesiologist, his eyelids were held open

\* Resident in Anesthesiology.

Received from the Department of Anesthesiology, UCLA School of Medicine, Los Angeles, California 90024. Accepted for publication January 6, 1978. Presented in part at the Annual Scientific Meeting of the American Society of Clinical Hypnosis, October 1977.

manually, and the suture was tightened and trimmed. During the manipulation there was no evidence of squeezing of the lids or facial muscles, the extraocular muscles remained still, and the patient seemed completely relaxed and comfortable. He had received no premedication or sedation.

The child had no postoperative discomfort and has little recall of the procedure. He stated that he enjoyed the games he played with the anesthesiologist and would be willing to play those games again.

#### DISCUSSION

Hypnosis has been demonstrated to be an effective alternative to general anesthesia.<sup>1-3</sup> It offers complete freedom from the adverse physiologic changes, allergic reactions, and residual effects often associated with chemical anesthetics. In ophthalmology hypnosis may be useful either alone<sup>3</sup> or in combination with retrobulbar block.<sup>7</sup> For procedures involving opening the globe of the eye (*eg.*, cataract extraction), the latter combination renders the patient comfortable and tranquil, yet completely cooperative, without the post-anesthetic problems of coughing or vomiting. Patient response is favorable, and there is freedom from the dangers of confusion, disorientation, and airway obstruction that may attend intravenous sedation, especially in the elderly. Hypnosis can be very effectively used in conjunction with other agents and techniques to promote optimum patient comfort and safety.

Issues frequently raised about the use of hypnosis in anesthesiology include patient selection, reliability, reproducibility, and success rate. While two cases are not enough to permit drawing any conclusions about these issues, the results are most encouraging. Another concern is that the trance will be disrupted in the midst of an operation. In these instances cessation of the surgical stimulus for a brief period in combination with trance-deepening techniques will usually restore the patient to a comfortable state.

Individualization is the key to successful use of hypnosis. Hypnotic abilities vary with motivation, situa-

tion, and the rapport established between the patient and the physician. These factors are assessed during the preoperative interview. Erickson<sup>6</sup> has described utilization techniques that tailor the approach to the patient's behavior. For example, the child's remark about the smell of the mask was utilized to induce a trance after other methods had proven unsuccessful. Additionally, this was the first hospitalization for both children, and the appropriate use of hypnosis helped to attenuate a potentially traumatic emotional experience.

Ophthalmic procedures incorporating postoperative suture adjustments may reduce the total number of operations needed for adequate correction of strabismus.<sup>4</sup> The present report suggests that hypnosis may be an ideal anesthetic technique, allowing these procedures to be performed more frequently in children. Further studies are needed to elucidate the role of hypnosis in pediatric anesthesiology and ophthalmology.

The author thanks Doctors Ronald L. Katz, Joseph Barber, Kumiko Iwamoto, and Arthur Rosebaum for their support, advice and encouragement.

#### REFERENCES

1. Esdaile J: Mesmerism in India. London, 1846. (Reissued under title Hypnosis in Medicine and Surgery. New York, Julian Press, 1957)
2. Marmer MJ: Hypnosis in Anesthesiology. Springfield, Ill., Charles C Thomas, 1959, pp 78-83
3. Golan HP: Hypnosis: Further case reports from the Boston City Hospital. *Am J Clin Hypn* 18:55-59, 1975
4. Rosenbaum AL, Metz HS, Carlson M, et al: Adjustable rectus muscle recession surgery. *Arch Ophthalmol* 95:817-820, 1977
5. Barber J: Rapid induction analgesia. *Am J Clin Hypn* 19:138-45, 1977
6. Haley J: *Advanced Techniques of Hypnosis and Therapy*. New York, Grune and Stratton, 1967, pp 32-50; pp 227-250
7. Bucalossi A: Hypnosis in Ophthalmology. *Minerva Med* 66: 3894-3897, 3 Nov 1975

Anesthesiology  
49:145-146, 1978

### Submucosal Passage of a Nasogastric Tube Complicating Attempted Intubation during Anesthesia

LEONARD J. LIND, M.D.,\* AND DONALD H. WALLACE, M.D., F.F.A.R.C.S.†

The purpose of this communication is to report a difficult nasogastric intubation resulting in submucosal

passage of a nasogastric tube, and to review briefly techniques proposed to minimize problems associated with gastric intubation.

\* Clinical Fellow in Anaesthesia, Harvard Medical School; Junior Assistant Resident in Anesthesia, Peter Bent Brigham Hospital, Boston, Massachusetts.

† Instructor in Anesthesia, Harvard Medical School; Senior Associate in Anesthesia, Peter Bent Brigham Hospital, Boston, Massachusetts.

Accepted for publication January 8, 1978.

Address reprint requests to Dr. Wallace: Department of Anesthesia, Peter Bent Brigham Hospital, 721 Huntington Ave., Boston, Massachusetts 02115.