MEDICAL HYPNOSIS AS AN ALTERNATIVE TO PHARMACOLOGIC SEDATION IN MR

Quality Improvement Project
Initial Experience with Selected Claustrophobic Patients

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Purpose

- **Claustrophobia** during a MR exam is a regular problem in clinical practice
- Claustrophobic patients usually require pharmacologic sedation which has potential side effects, is relatively expensive, and is difficult to integrate in the daily workflow
- The purpose of our quality project was to assess the feasibility of medical hypnosis as an alternative to pharmacologic sedation in claustrophobic patients undergoing a MR exam
Medical hypnosis: background

Medical hypnosis integrates various techniques (imaginative and metaphorical thinking, mindfulness, ...) aimed at increasing the patient’s motivation and altering his or her behavioral patterns in order to overcome various difficulties (anxiety, somatoform disorders, chronic and acute pain, etc.)

**Important characteristics of medical hypnosis:**

- The patient is asked to cooperate actively
- Mutual trust is essential for application of hypnotic techniques
- The patient is completely in control of the situation and can decide whether or not to accept therapist’s propositions
- Is characterized by an altered state of wakefulness
Methods

- As a quality improvement project, no authorization from our local ethical committee was required (decision: April 3rd 2018)
- MRI exams using medical hypnosis were accomplished in 61 claustrophobic patients between December 2015 and March 2018 on a wide-bore 3T MR (MAGNETOM Skyra, Siemens Healthcare)
- We assessed the percentage of patients having completed the MR exam with diagnostic images (based on the radiologist’s report); furthermore, we estimated the additional length and costs of the MR exam using hypnosis and patient satisfaction as compared to MR using pharmacologic sedation

Methods

- After MR scheduling, every patient was directly contacted by the physician specialized in hypnotherapy who explained the procedure and asked for consent to undergo hypnosis. The day of MR exam, the physician induced a hypnotic trance outside the MR room.

The physician specialized in hypnotherapy remains outside the MR room and is constantly in contact with the patient.
61 selected patients with claustrophobia scheduled for MR

3/61 (5%) refused to undergo hypnosis

58 (95%) patients underwent MR with hypnosis:
- 9/58 (15%) with previous MR under pharmacological sedation
- 27/58 (46%) with previous interrupted close bore MR
- 13/58 (24%) refusing to undergo MR without sedation
- 9/58 (15%) with contra-indication to sedation due to type of MR exam

52/58 (90%) completed MR

6/58 (10%) interrupted MR

52/52 (100%) MR with images of diagnostic quality

Results

- **MR completion**: 52/58 patients undergoing MRI (90%) and 52/52 (100%) with images of diagnostic quality
- **MR duration**: approximately 10 minutes longer than standard MR (with pharmacological sedation: 30-40 minutes longer than standard MR)
- **Additional costs**: approximately 160-200 Swiss francs (160-200 USD) for hypnosis and 370-410 Swiss francs (370-410 USD) for sedation
- **Patient satisfaction**: substantial patient satisfaction and self-empowerment was observed
Conclusions

As compared to MR under pharmacologic sedation, MR under hypnosis in claustrophobic patients allows:

- Obtainment of MR images of equal diagnostic quality
- Reduction in the duration of MR exam time (20-30 min shorter)
- Reduction in procedural costs
- Reinforcement of the patient’s self empowerment

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Clinical studies are needed to confirm our data and to ascertain the role of hypnosis in selected claustrophobic patients undergoing MR exam.