



KEY POINT SUMMARY

OBJECTIVES

To test the hypotheses that music decreases the dose of sedative drugs required for colonoscopy and that the combination of music and Patient Controlled Sedation improves patient acceptance of colonoscopy

Relaxation Music Decreases the Dose of Patient-Controlled Sedation During Colonoscopy: A Prospective Randomized Controlled Trial

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Key Concepts/Context

Colonoscopy is an unpleasant and stressful procedure which often requires a high dosage of sedatives for the patients. Additionally patient noncompliance with recommendations for colonoscopy procedures can become a challenge in surveillance programs for screening cancer. This study explores the effectiveness of a non-pharmacological intervention, like relaxation music, on patient-controlled sedation.

Methods

A randomized controlled trial (RCT) conducted with one hundred sixty-five patients scheduled to undergo elective colonoscopy who were randomly assigned to receive 1 of 3 different modes of sedation: Group 1, a combination of music and patient-controlled sedation (PCS) with a mixture of propofol and alfentanil; Group 2, patient-controlled sedation alone; Group 3, music alone with diazepam and meperidine administered intravenously if requested by the patient. Music was provided by means of a portable compact disc machine with headphones. Outcome measures assessed immediately after colonoscopy and 24 hours later included dose of patient-controlled sedation used, complications, recovery time, pain score, satisfaction score, and willingness to repeat the procedure with the same mode of sedation.



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Findings

The mean (SD) dose of propofol (sedative) used in Group 1 (music + PCS) was significantly less than Group 2 (patient controlled sedation alone). The meansatisfaction score was higher in Group 1 compared with Group 2 and Group 3. The majority of patients in Group 1 were willing to repeat the same mode of sedation when queried immediately after colonoscopy (87%) and 24 hours later (75%), which was significantly different from the corresponding results in the other 2 groups. Authors concluded that music can decrease the dose of sedative medication required for colonoscopy, and that the combination of music and patient-controlled sedation was the best-accepted mode of sedation among the 3 groups.

Limitations

About half of patients (53%) in Group 3 (music alone) did not require any sedative medication, whereas almost all patients in Groups 1 (95%) and 2 (98%) used PCS. This might be related to the fact that patients in Groups 1 and 2 could obtain sedation immediately from the PCA machine but patients in Group 3 had to request medication from nurses. However, authors discuss that this could probably influence the threshold at which patients in Group 3 asked to be medicated.

Additionally, although in this case the majority of the users chose Chinese music, the study did not explore the question of which type of music provided the clinical effect.

Design Implications

Music can be used as a positive distraction, and a non-pharmacological intervention, for highly stressful procedures.

Patient control, and ability to select and choose music, is important.

A business case can be made for using music as an intervention, supplementary to clinical procedures, since it can potentially reduce dose-related complications associated with the use of sedatives and analgesic drugs.