
#ECR2022: Effect of Music in Venous Catheter Placements Procedures



At ECR 2022, Florian Nima Fleckenstein, Berlin, Germany, discussed the effect of music on patient anxiety in venous catheter placement procedures.

In interventional radiology, managing pain and anxiety can be challenging since most patients are treated while they are fully conscious. Therefore, peri- and post-procedural anxiety is a frequent problem. High anxiety levels are associated with decreased pain tolerance, increased use of analgesics and sedation, and increased recovery and hospital discharge time.

Music interventions have been used in various specialties, including cancer care, pain management, dementia and palliative care. These interventions are widely applicable, easily available, uncomplicated, inexpensive and non-invasive. However, music interventions have not yet been integrated into the peri-interventional routine of interventional radiology.

In this study, researchers aimed to assess the influence of music on anxiety levels compared to standard patient care in patients undergoing venous catheter placement procedures. The trial included patients undergoing placement procedures for peripherally inserted central venous catheters (PICC), ports and central venous catheters (CVC). Study patients were assigned to a music intervention group (MIG) and a control group (CTRL).

The primary outcomes of the study were state and trait anxiety levels, assessed using the state-trait anxiety inventory (STAI) before and after the procedures. Secondary outcomes included averaged heart rate and time of radiological surveillance for port placement procedures.

Seventy-two patients were included in the final analysis. Findings showed that the mean levels for post-interventional anxieties were significantly lower in the MIG compared to the CTRL. The mean heart rate in the MIG was significantly lower than in the CTRL. The procedure time for port implantation was longer in the MIG by 3 minutes and 45 seconds.

Overall, it was observed that music exposure during central venous catheter placement procedures significantly reduced anxiety and stress levels and could be used to improve patients' overall experience when undergoing such procedures.

Source: [ECR 2022; Nature](#)

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