

ABSTRACT**Scoring Analysis of the Relationship Between Magnetic Resonance Imaging-Anxiety Questionnaire (MRI-AQ) With Heart Rate To Patients Anxiety Level At Lumbosacral MRI Examination**Mirza Isna Amaliya¹Rosy Setiawati²Amillia Kartika Sari³

Background : Anxiety during Lumbosacral MRI examination becomes a constraint that often affects patient behavior. Anxiety can be caused by the hormone adrenaline and cortisol released and activates the sympathetic nerves to increase heart rate. The patient's anxiety had a negative effect on the Lumbosacral MRI examination procedure, which was often lead to the failure of Lumbosacral MRI.

Purpose: To determine the relationship between scoring a Magnetic Resonance Imaging and Anxiety Questionnaire (MRI-AQ) with heart rate to patient anxiety level at Lumbosacral MRI examination

Method : This research used correlational method with cross-sectional approach. The sampling technique used is purposive sampling. The data were collected using a Magnetic Resonance Imaging-Anxiety Questionnaire (MRI-AQ) questionnaire to determine the patient's anxiety level during Lumbosacral MRI and ECG along with pulse oxymeter to determine the patient's heart rate before, during, and after the examination. The technique of processing and data analysis was done by paired-t test and Pearson correlation using SPSS computer program.

Result: From the statistical test results obtained values before the MRI examination $r = 0,48$; during $r = 0.636$; and after $r = 0.463$, there was a moderate relationship between before and after the examination and strong relationship at the time of Lumbosacral MRI examination.

Conclusion: There was a significant positive relationship between anxiety and heart rate of patients before, during, and after MRI Lumbosacral examination.

Keyword: Anxiety, *Magnetic Resonance Imaging- Anxiety Questionnaire score*, Heart rate, Lumbosacral MRI

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