

SSQ21-08

Effect of Patients' Negative Affect on Adverse Events in Interventional Radiology

Thursday 11:40-11:50 AM | SSQ21-08 | NA

#### PURPOSE

Self-fulfilling prophecy of thoughts and feelings about health outcomes and the mood contagion between patients and physicians are contested topics in the current literature and lay press. In this study we assessed whether a patient's negative affect is predictive of adverse events during interventional radiological procedures.

#### METHOD AND MATERIALS

This IRB-approved HIPAA compliant study includes 230 patients who underwent percutaneous peripheral vascular and renal interventions in a randomized sequence. Prior to their interventions patients filled out the Positive Affect Negative Affect Schedule (PANAS), rating 10 adjectives each related to either positive affect (PA) or negative affect (NA) using a 5-point rating scale ranging from "1=Very slightly/Not at All" to "5=Extremely". Adjectives for NA were: Distressed, upset, guilty, scared, hostile, irritable, ashamed, nervous, jittery, and afraid. Adjectives for PA were: Interested, excited, strong, enthusiastic, proud, alert, inspired, determined, attentive, and active. Adverse events included prolonged hypoxia, hypertensive or hypotensive episodes, prolonged bradycardia, postoperative bleeding. Summary scores for NA and PA were split into high and low over their medians and correlated with absence or presence of adverse events using logistic regression. Odds ratios, standard error (SE), confidence intervals (CI), and p-values were reported using SAS 9.1.3.

#### RESULTS

Patients with high NA had significantly more adverse events than those with low NA (22% vs 12%; odds ratio 0.48, SE 0.17, CI 0.23 - 0.97,  $p=0.04$ ). The degree of PA did not significantly affect outcome (odds ratio 0.76, SE 0.27, CI 0.38 -1.53,  $p=0.44$ ).

#### CONCLUSION

Patients with high negative affect fared significantly worse in terms of adverse events as compared to patients who had low negative affect. The degree of positive effect did not make significant difference.

#### CLINICAL RELEVANCE/APPLICATION

The mood contagion from the patient's negative affect should be of concern for the practicing interventional radiologist because it may result in a self-fulfilling prophecy of a negative outcome.