ARE DEPRESSION AND ANXIETY PROFILES ASSOCIATED WITH PERSISTENT POST-SURGICAL PAIN 2 YEARS AFTER CARDIAC SURGERY? THE CARD-PAIN STUDY

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INTRODUCTION / AIM

Rates of depression, anxiety and persistent postsurgical pain (PPSP) are elevated in patients undergoing cardiac surgery. The association between these constructs among cardiac patients has yet to be examined using a patient-centered approach. The objectives of this study were to (1) identify patient subgroups sharing similar depression and anxiety trajectories over a 24-month period following cardiac surgery; (2) examine demographic and clinical characteristics associated with trajectory membership; and (3) examine the associations between these trajectories and PPSP.

METHODS

A total of 1,071 patients undergoing coronary artery bypass graft and/or valve replacement surgery completed pain and psychological questionnaires pre-operatively and 7 days and 3, 6, 12 and 24 months post-operatively. Trajectory models were run using Growth Mixture Modeling.

RESULTS

Both anxiety and depression models yielded a 3-trajectory solution. A minority of patients exhibited moderate to severe anxiety levels that decreased in intensity over time. Age, sex, quality of life (QOL) and pain catastrophizing at baseline predicted anxiety trajectory membership. With regards to depression, a minority of patients had mild levels that remained unchanged. Chronic pain pre-operatively, pain catastrophizing and QOL predicted depression trajectory membership. Patients in the high anxiety trajectory were more likely to report PPSP.

DISCUSSION / CONCLUSIONS

This study is the first one to demonstrate that the presence of different subgroups of patients sharing similar anxiety profiles is associated with PPSP over a 24-month period. The importance of these results lies in the early identification and treatment of high risk patients based on their preoperative psychological and early postoperative recovery profiles to prevent PPSP.

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