Reviewer’s report

Title: Pre-Transplant Depression as a Predictor of Adherence and Morbidities after Orthotopic Heart Transplantation

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Reviewer: Alpha Diallo

Reviewer's report:

This is a well written paper with adequate background literature search.

Allowing the smaller size of the sample and the retrospective nature of the study, the discussion was fair. The limitations of the study were acknowledged.

The adverse outcomes of pre-transplant depression are well documented in the literature. The significance of their impact seems to vary from one review to another and likely to be dependent on the type of organ transplanted. And yet, they all use the same psychometric tolls to identify and manage this vulnerable group of patients.

For instance, Regal et al (1) showed in a large retrospective cohort of 1115 liver recipients, that pre-transplant depression was more associated with a lengthy hospital stay (in contrast to the findings in this paper where the depressed group had a shorter hospital stay) and a decreased survival was evident when followed up for up to 5 years. Their results were supported by a study by El-Jawahri et al (2) in a large sample of 7433 patients undergoing Haematopoietic Stem Cell Transplantation; of whom, 15% (1116) had pre-transplant depression and had the longest hospital stay when observed for the first 100 days. This group also had a high overall mortality.

Courtwright et al (3) carried out a Meta-Analysis of 6 prospective longitudinal cohort studies pertinent to depression/anxiety pre-lung transplant. They showed that "pre-transplant anxiety and depression were not associated with post-transplant survival" and "the results did not differ whether anxiety or depression was treated". In a different paper Rogal et al (4) concluded that "pharmacologic treatment of depression may significantly reduce the incidence of acute cellular rejections in patients undergoing liver transplantation".


The disparity of the findings across different transplant specialities is evident.

In this particular study, about pre-heart transplant depression, the authors concluded that, rejections, mortality and compliance with outpatient appointments were unaffected during the yearlong observational period.

The association of depression with increased cardiovascular risk, cancer risk, cost to healthcare systems and mortality are well recognised. Heart transplantation is the gold standard for the treatment of end stage heart failure. Depression is 4-5 times more common in heart failure, compared to the general population (5). The variation in severity and diagnostic challenge of depression can even be more prominent when considering the 3 groups of patients offered heart transplantation:

a. Patients with end stage heart failure stable on optimum medical therapy, on the routine waiting list.

b. Patients on mechanical circulatory support in the form of Left ventricular Assist Device (LVAD) as a bridge to heart transplantation.

c. Patient stable on short-term mechanical circulatory support awaiting urgent heart transplantation.

It is therefore not surprising that the study question in this article leaves a question mark as did many of the preceding papers. This prompts, as the quasi-totality of the studies suggested, to the need of a prospective multicentre and pan-speciality approach to this clinical entity in order to refine the diagnostic tools and, lay a common denominator for its management.

This article adds to the existing body of evidence that pre-transplant depression should not be undermined and should form an integrant part of the co-morbidities of transplants patient requiring active management.
References:


2. El-Jawahri et al, Association of Pre-Transplant Depression with Clinical Outcomes and Resource Utilization after Allogeneic Hematopoietic Stem Cell Transplantation

   Journal of Biology and Marrow Transplantation, March 2016, Volume 22, issue3, Supplement, Pages S22-S23


5. FREQUENCY OF DEPRESSION IN PATIENTS WITH CHRONIC HEART FAILURE. Shahsawar Khan, Ajmal Khan, Rehmat Ghaffar*, Zahid Aslam Awan. J Ayub Med Coll Abbottabad 2012;24(2)

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