Psychological distress in patients undergoing urological surgery: A cross sectional study

Nuala Murray, BAO[1]; Charles O'Connor, BAO[1]; Helen Richards, MD, PhD[1], Derek Hennessey, MD[1]
[1]Mercy University Hospital

Introduction

Psychological distress is common amongst hospitalized patients, particularly amongst those undergoing surgery (1). It is thought that increased levels of anxiety and depression may not only increase the risks directly associated with surgery through physiological means but may hinder the process of recovery and rehabilitation (2). Psychological distress can increase surgical risks, including morbidity and mortality, due to its direct impact on physiological parameters: elevated blood pressure, elevated heart rate, and the need for higher levels of sedation and pain controls in the peri and post-operative stages of surgery (3). Studies of disease-specific psychological distress have shown depression to be a substantial complication for patients with cancer (4).

In spite of the above data, the psychological impact of moderate and major urological and Uro-oncological surgery remains largely unknown. No study has investigated pre-surgery, post-surgery and follow-up distress levels in a cohort of urology patients. Thus, many patients who develop or who are at risk of anxiety and depression go untreated. Furthermore, there is little by way investigation into distress levels in urological patients who do not have cancer but who are surgically managed. The current study aims to evaluate the psychological distress of both urological and Uro-oncological patients presenting to tertiary referral Uro-oncology, reconstructive and stone centre and to examine the association with socio-demographic and clinical variables at pre and post-operative stages.

Aim

The aim of this study is to evaluate the psychological distress of urological and uro-oncological patients undergoing surgery.

Methods

Patients who presented to Mercy University Hospital from October 2019 to May 2020 were consecutively recruited. Demographic and clinical characteristics including age, gender, marital status, type of surgery (Uro-oncology or general urology), endoscopy or open surgery were gathered. Mood was evaluated using the Hospital Anxiety and Depression Scale (HADS) prior to admission, prior to discharge and six weeks post-surgery.

Results

A total of 118 participants (79.7% male) completed the HADS prior to admission, prior to discharge and at 6 weeks post-surgery. Forty patients (33.9%) underwent Uro-oncology-related surgery. At pre-admission 39 patients (33%) fell into a possible-probable clinical category for anxiety and 15 (12.7%) for depression. Older patients had significantly lower anxiety levels than younger patients (p=<0.01). There were no differences between patients undergoing Uro-oncology or more general urology surgery and levels of anxiety or depression. Repeated measures ANOVA with age as a covariate indicated no significant differences in HADS anxiety scores over time. There was a statistically significant reduction in HADS depression scores over the 3 assessment time points (p=0.004).

Table 1. Sociodemographic and clinical variables for 118 patients assessed.

Variable	Value
Age years, mean (sd; range)	58.17(16.78; 17-89)
Gender, n (%)	
Male	94 (79.7)
Female	24 (20.3)
Marital status, n (%)	
Single	18 (15.3)
Married /life partner	91 (77.1)
Divorced/ separated	3 (2.5)
Widowed	6 (5.1)
ASA grade, n (%)	
I	79 (66.9)
II	25 (21.2)
III	13 (11)
IV	1 (0.8)
ECOG Performance status grade, n (%)	
0	69 (58.5)
1	29 (24.6)
2	19 (16.1)
3	1 (0.8)
Uro-oncology related procedure, n (%)	
Yes	40 (33.9)
No	78 (66.1)
Length in days of hospital stay, mean (sd, range)	2.1 (2.5, 1-21)

Table 2. Mean (SD) HADS anxiety and depression scores and number of participants (%) classified as possible and probable cases for anxiety and depression at Pre-assessment clinic, discharge and 6 weeks follow-up.

	HADS anxiety M (SD)	HADS depression M (SD)	Possible anxiety (8-10) N (%)	Possible depression (8-10) N (%)	Probable anxiety (≥11) N (%)	Probable depression (≥11) N (%)
Pre-assessment	5.89 (4.51)	4.20 (3.56)	19 (16.1)	9 (7.6)	20 (16.9)	6 (5.1)
Discharge	4.87 (3.82)	3.85 (3.13)	16 (13.6)	8 (6.8)	9 (7.6)	3 (2.5)
6 weeks follow-up	4.56 (3.56)	3.57 (3.01)	15 (12.7)	2 (1.7)	9 (7.6)	4 (3.4)

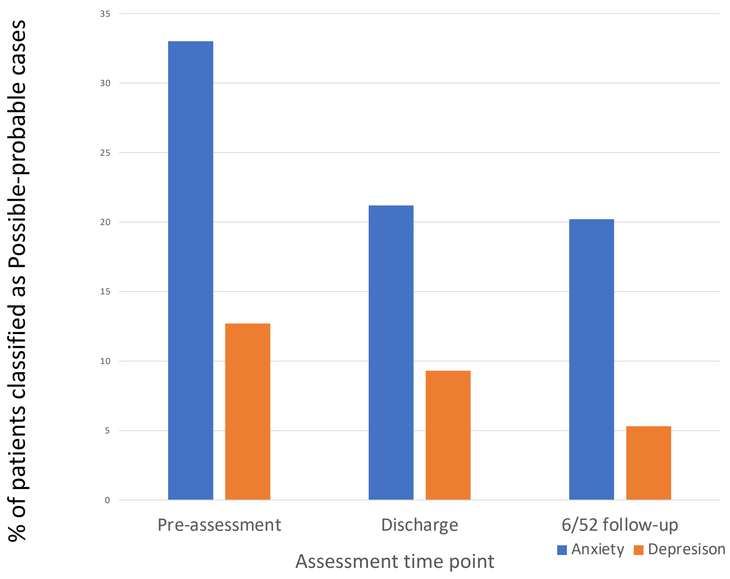

Figure 1. Percentage of participants classified as possible-probable depression and anxiety cases (HADS ≥8) at each of the assessment time points.

Discussion

This was the first study to investigate psychological distress in an Irish cohort of patients undergoing urological surgery. Over one third of patients were experiencing moderate to severe levels of psychological distress pre-surgery. This is somewhat higher than figures reported recently indicating levels of depression in the general Irish population to be closer to 13% (5). Whilst research has shown the prevalence of anxiety and depression to be higher in cancer patients than in the general population (6) the levels found in the current study are higher than those reported recently in a uro-oncological population. Surprisingly, in our study, there was no difference in anxiety and depression scores in those attending for Uro-oncology surgery and those attending for more general urology surgery, at either pre or post-operative stages. Whilst previous studies have shown the prevalence of anxiety and depression to be higher in cancer patients than in the general population (7) there is little by way of evidence to suggest that levels are higher than in those with acute or chronic non-palliative morbidities (8). More so than diagnosis, symptom burden overall has been shown to influence levels of anxiety and depression

Conclusions

Over one third of patients were experiencing moderate to severe levels of psychological distress pre-surgery – higher than levels previously reported in Uro-oncological patients. Surprisingly, there was no difference in anxiety and depression scores in Uro-oncology and urology patients. Psychological distress in both Uro-oncology and more general urology patients should be considered in the surgical setting.

Contact

Nuala Murray
Mercy University Hospital
Email: nuala.murray3@hse.ie
Phone: 0871335539

Ethical approval was obtained in September 2019 through the Clinical Research Ethics Committee, University College Cork.

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