Section: Research Paper

A clinical study on psychological morbidities in patient with major abdominal surgeries

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ABSTRACT

Background: Psychiatric disorders are commonly seen in surgical patients and surgeons are less likely to seek opinion from psychiatrists than physicians. The present study was conducted to evaluate psychological morbidity in patients with major abdominal surgeries.

Materials & Methods:86 patients who underwent major abdominal surgeries of both genders were subjected to mental status examination in the post operative period. Brief Psychiatric Rating Scale (BPRS) administered to screen for psychiatric problems. ICD 10 classificatory system was used to diagnose psychiatric disorders. Prevalence of psychiatric morbidity in post operative state was recorded.

Results: Out of 86 patients, males were 50 and females were 36. Type of abdominal surgery was incisional hernia repair in 21, umbilical hernia repair in 24, open cholecystectomy in 10, lap cholecystectomy in 16, open appendicectomy in 8 and lap appendicectomy in 7. Psychiatric morbidity was nil in 54, phobia in 5, depression in 16, anxiety neurosis in 4, conversion reaction in 3, brief psychotic disorder in 4, Sexual satisfaction was not applicablein 20, not satisfactory in 10 and satisfactory in 56., Marital satisfaction was disharmony in 26 and satisfactory in 60. The difference was significant (P< 0.05).

Conclusion: A significant number of patients undergoing emergency abdominal surgery had depression.

Key words:depression, psychological morbidity, abdominal

Introduction

The negative impact of depression on post-operative morbidity has been documented in the previous literature. Persistent activation of the hypothalamic–pituitary–adrenal axis in chronic depression impairs key immune modulators such as tumour necrosis factor alpha, conferring a higher risk of post-operative infection.[1] Similarly, principle neurophysiological

disturbances in delirium relate to immune dysregulation and abnormal stress responses. Compromised circadian rhythm is acutely perpetuated and exacerbated by physiological stress including surgery. It is therefore not surprising that research has shown greater vulnerability to post-operative delirium in patients with depression compared to those with normal baseline cognition. In spite of this, the impact of depression in patients undergoing emergency abdominal surgery is unknown.[2]

Psychiatric disorders are commonly seen in surgical patients and surgeons are less likely to seek opinion from psychiatrists than physicians. There is a possibility of undiagnosed/ under diagnosed or misdiagnosed psychiatric problems and they are not adequately intervened at the appropriate time.[3] Misconceptions about surgeries in the vulnerable individuals may produce anxiety and there is a cause and effect relationship between depression and pain tolerance of the individual in the post operative period. Incapacitation due to hospitalisation and thoughts about delayed resuming of normal functions.[4] Risk factors for post operative delirium include older age, pre- existing cognitive dysfunction, alcohol abuse, sleep deprivation, nutritional problems, physical comorbidities and hypoxia.[5] Patients with low stress tolerance may develop conversion symptoms and sometimes psychosis may occur in post operative state with the vulnerable risk factors.[6]The present study was conducted to evaluate psychological morbidity in patientswith major abdominal surgeries.

Materials & Methods

The present study consisted of 86 patients who underwent major abdominal surgeries of both genders. All gave their written consent to participate in the study.

Data such as name, age, gender etc. was recorded. A thorough clinical examination was carried out. All were subjected to mental status examination in the post operative period. Brief Psychiatric Rating Scale (BPRS) administered to screen for psychiatric problems. ICD 10 classificatory system was used to diagnose psychiatric disorders. Prevalence of psychiatric morbidity in post operative state was recorded.Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

Results

Table I Distribution of patients

Total- 86		
Gender	Males	Females
Number	50	36

Table I shows that out of 86 patients, males were 50 and females were 36.

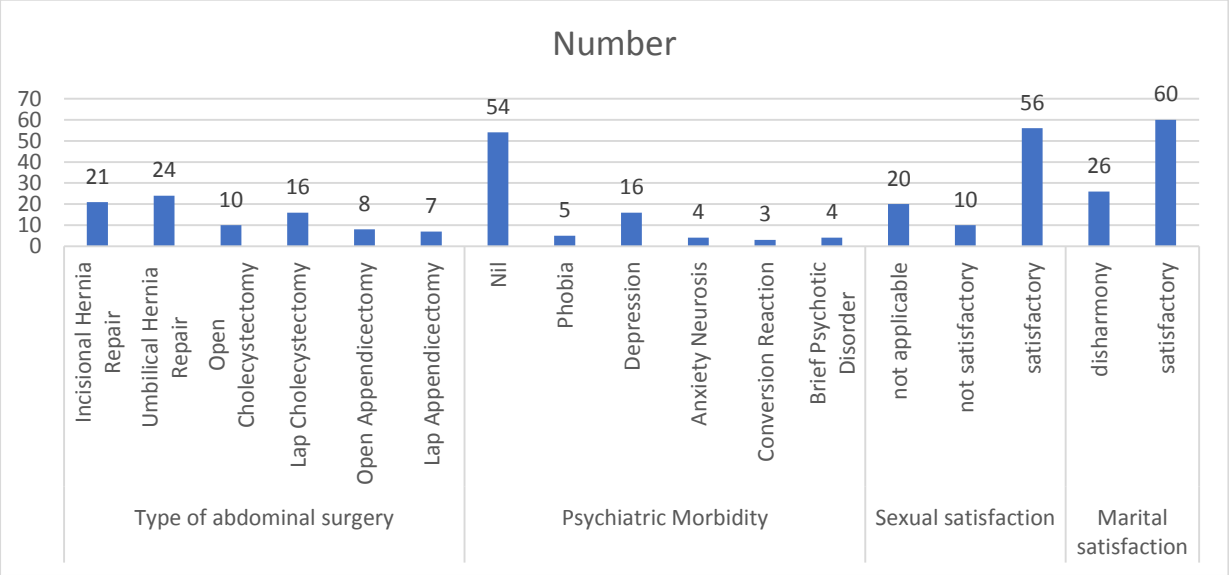
Table II Assessment of parameters

Parameters	**Variables**	**Number**	**P value**
Type of abdominal surgery	Incisional Hernia Repair	21	0.05
	Umbilical Hernia Repair	24	
	Open Cholecystectomy	10	
	Lap Cholecystectomy	16	
	Open Appendicectomy	8	

	Lap Appendicectomy	7	
Psychiatric Morbidity	Nil	54	0.02
	Phobia	5	
	Depression	16	
	Anxiety Neurosis	4	
	Conversion Reaction	3	
	Brief Psychotic Disorder	4	
Sexual satisfaction	not applicable	20	0.02
	not satisfactory	10	
	satisfactory	56	
Marital satisfaction	disharmony	26	0.01
	satisfactory	60	

Table II, graph I shows that type of abdominal surgery was incisional hernia repair in 21, umbilical hernia repair in 24, open cholecystectomy in 10, lap cholecystectomy in 16, open appendicectomy in 8 and lap appendicectomy in 7. Psychiatric morbidity was nil in 54, phobia in 5, depression in 16, anxiety neurosis in 4, conversion reaction in 3, brief psychotic disorder in 4, Sexual satisfaction was not applicable in 20, not satisfactory in 10 and satisfactory in 56., Marital satisfaction was disharmony in 26 and satisfactory in 60. The difference was significant (P< 0.05).

Graph IAssessment of parameters



Discussion

Emergency abdominal surgery is performed in over 50,000 patients a year in the UK.[7] It is an important public health arena in which there are constant efforts to improve outcomes, a prime example being the National Emergency Laparotomy (NELA) audit.[8] NELA is a nationally commissioned audit designed to improve the results of emergency laparotomy through the provision of comparative data from all providers of emergency laparotomy in the

UK.[9]The present study was conducted to evaluate psychological morbidity in patientswith major abdominal surgeries.

We found that out of 86 patients, males were 50 and females were 36. Bharath et al[10]assessed the prevalence of psychiatric morbidity among post operative patients who have undergone abdominal surgeries. 131 patients were observed for Psychiatric morbidity during their post operative period of their abdominal surgeries. The interview was carried out on the fifth day of their postoperative periods.Appendicectomy and laparatomy procedures were more performed during the study period and in appendicectomy group, open appendicectomies were performed as emergencies. Nearly 13% (17 patients) exhibited psychiatric morbidity and most of the problems were seen in emergency surgeries. Anxiety neurosis was seen in 7.63% (10 patients), depression was seen in 2.3% (3patients), conversion reaction was seen in 0.76% (1patient). Delirium was seen in 1.52% (2 patients) and Brief Reactive Psychosis was seen in 0.76% (1 patient). Anxiety was more seen in the post operative period and its more commonly seen in emergency open appendicectomies

We found that type of abdominal surgery was incisional hernia repair in 21, umbilical hernia repair in 24, open cholecystectomy in 10, lap cholecystectomy in 16, open appendicectomy in 8 and lap appendicectomy in 7. Psychiatric morbidity was nil in 54, phobia in 5, depression in 16, anxiety neurosis in 4, conversion reaction in 3, brief psychotic disorder in 4, Sexual satisfaction was not applicable in 20, not satisfactory in 10 and satisfactory in 56., Marital satisfaction was disharmony in 26 and satisfactory in 60. The difference was significant ($P< 0.05$). Maroof et al[11]investigated rates of depression in emergency abdominal surgery patients and its effects on outcomes.Primary outcome was the complication rate in depressed patients, including the incidence of post-operative delirium. Secondary outcomes included mortality, time to oral intake and analgesia.Two hundred and ten patients were identified. The commonest indication for surgery was appendicitis (53.3%) followed by small bowel obstruction (9.5%). There was a 17% ($n = 36$) incidence of depression amongst patients, most of whom ($n = 26$, 72.2%) were taking antidepressants. Depression was associated with male sex (M:F 27:9), higher median BMI (28 vs. 25) and previous surgery (47.2% vs. 28.7% $p = 0.032$). Despite a higher incidence of post-operative delirium, increased time to oral analgesia and greater 30-day readmission rates in the depression cohort, multivariate analyses showed depression was not a significant independent predictor of these (OR 2.181, 95%CI 0.310–15.344; $p = 0.433$, OR 0.07, 95%CI 0.499–1.408; $p = 0.348$ and OR 1.367, 95%CI 0.102–18.34, respectively). Complication and mortality rates between depressed and non-depressed individuals were similar.

Elsamadicy et al[12] identified a twofold higher rate of post-operative delirium in depressed patients undergoing elective spine surgery, and Falk et al[13] found a strong association between pre-operative depression and post-operative delirium in cardiac surgery.

The limitation the study is small sample size.

Conclusion

Authors found that a significant number of patients undergoing emergency abdominal surgery had depression.

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