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A STUDY OF PSYCHOLOGICAL PROFILE OF PATIENTS UNDERGOING ELECTIVE AND EMERGENCY SURGERY IN A TERTIARY HOSPITAL IN CENTRAL INDIA.

Surgery

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ABSTRACT

Objective: To determine the psychological profile i.e. anxiety and depression in post-operative patients undergoing elective and emergency surgery.

Methods: This cross-sectional analytical study was conducted at the Department of Surgery from January 2019 to December 2019 in a tertiary hospital in central India. Patients admitted to the surgical wards, including general surgical, neurosurgical, urology undergoing major surgical procedures were enrolled. A total of 662 patients were studied.

Results: Out of the 662 patients studied, 4,65(70.24%) were in group 1 and 1,97(29.75%) in group 2. The mean age of patients was 35.65±10.2years in group 1, and 38.12±10.4 years in group 2. There were 466(70.39%) general surgical patients , 108(16.31%) neurosurgical patients and 88(13.29%) urological surgery patients. Anxiety was present in 98(48.22%) and 78(39.59%) patients at 0 and 3 weeks in patients undergoing emergency surgery. Depression was present in 21(10.65%) and 61(30.96%) patients at 0 and 3 weeks in group 2 and 46(9.89%) and 148(31.82%) patients in group 1, respectively.

KEYWORDS

Elective Surgery, Emergency Surgery, Depression,

INTRODUCTION:

In Surgery wards Psychological problems like Depression and anxiety disorders are commonly seen in the hospitalized patients. It is therefore important to study the risk factors for early diagnosis of depression and anxiety disorders in patients undergoing surgery.[1] Problems such as Depression and anxiety symptoms are important problems in surgical patients, especially in females and those with probability of mood disorders or lower educational status. Increased risk is seen in those Patients having longer hospitalization, in particular those with co-morbid pathologies, complications of surgery, lack of familial support, and the need for repeated surgeries,.[2] Also, Depression and anxiety are widely diagnosed particularly in those who are waiting for the surgery in hospitals and who have to face the chronic complications related to the surgery.

The Psychological problems such as these reduce the adjustment of patients in hospitals and are also connected with adverse outcomes and unexpected results.[3] The risk factors of anxiety and depressive disorders interact variably with the other stressors of hospital admission for surgery.[4,5] Risk identification in hospitalized patients for mood disorders can help in identifying those who have a higher probability to develop poor outcome as depression and anxiety disorders have been associated with re-admission, higher physical morbidity, and even post-discharge psychiatric morbidity.[6,7] If such high risk patients are identified, they can be expected to create poor results with high possibility. This is expected from specific importance attached to the variable of re-admission, higher post-operative complications post-discharge psychiatric morbidity and mortality.[8,9]

The Hospital Anxiety and Depression Scale (HADS) has been widely used as a screening instrument in hospitalized patients. Its use in community and importance in outpatients and inpatients settings has been well accepted.[10]

Hence the current study was done to determine the frequency of psychological problems like depression and anxiety in patients undergoing elective and emergency surgery.

METHODOLOGY:

This hospital based cross-sectional, analytical study was conducted at the Department of Surgery in a tertiary hospital from January 2019 to December 2019 for 1 year, and comprised patients due for elective and emergency surgery. Patients were admitted in the surgical wards, including general surgical, neurosurgical and urological wards. Convenience sampling was used. Patients aged 18 years or above, undergoing major surgical procedure and who gave written informed consent were included. Participants were divided into two groups. Group 1 comprised elective surgery patients from surgical outpatients department (OPD) and inpatients, while group 2 had emergency surgery patients taken from emergency and trauma centre. Anxiety and depression was assessed by HADS. It consisted of 14 items, seven on depression subscale (HADS-D) and seven on anxiety subscale (HADS-A). Each item was scored on a four-point scale from "0" (not present) to "3" (considerable) and the items were added giving HADS-D and HADS-A score from "0" (minimal symptom load) to "21"(maximum symptom load). Based on literature, cases of anxiety or depression were defined by a score of 8 or more on HADS-A or HADS-D, respectively. Cronbach's alpha for HAD-A and HAD-D was 0.84 and 0.81, respectively.

A senior doctor administered the HADS at the first inpatient visit. This was either 12 hours at 0 week after admission for electively scheduled surgeries or 12-48 hours after the surgery for patients undergoing emergency surgery. The interview was repeated within 2-3 weeks or before the patient was discharged. Demographics and other clinical and surgical characteristics of patients were also recorded. Study followed the guidelines of the declaration of Helsinki. Data was analysed using SPSS 21.

RESULTS:

Of the total 1050 patients, 6,62(63.05%) were included. Of them, 4,65(70.24%) were in group 1 and 1,97(29.75%) in group 2. The mean age of patients was 35.65±10.2years in group 1, and 38.12±10.4 years in group 2. There were 152(32.7%) males and 313(67.3%) females in group 1, while there were 48(24.4%) males and 149(75.6%) females in group 2 (Table 1).

Table 1 Showing General Statistics :

		Elective surgery (Group 1)	Emergency surgery (group 2)
Total surgeries	1050	753	297
Patients fulfilling inclusion criteria	662	465	197
Age (range, mean, SD)		18-67 yrs (mean 35.65±10.2 years)	18-54 yrs (mean 38.12±10.4 years)
Gender M:F (1:1.96)	n(200:462) (30.21%: 69.78%)	n (152:313) (32.7%: 67.3%)	n (48:149) (24.4%: 75.6%)

Differential statistics of elective and emergency patients showed there were 466(70.39%) general surgical patients , 108(16.31%) neurosurgical patients and 88(13.29%) urological surgery patients (Table 2).

Table 2: Patients In Different Surgical Specialties: (n=662)

	Total	Elective surgery (Group 1)	Emergency surgery (group 2)
General surgery	466	340	126
Neurosurgery	108	60	48
Urosurgery	88	65	23
Total	662	465	197

Moreover, anxiety was present in 98(48.22%) and 78(39.59%) patients at 0 and 3 weeks in patients undergoing emergency surgery. In elective surgery patients, it was noted in 50(10.75%) and 139(29.89%) subjects at 0 and 3 weeks, respectively. Depression was present in 21(10.65%) and 61(30.96%) patients at 0 and 3 weeks in group 2 and 46(9.89%) and 148(31.82%) patients in group 1, respectively (Table 3).

Table 3: Frequency Of Depression And Anxiety In Elective And Emergency Surgeries.

VARIABLES	Group I Elective surgery, n=465	Group 2 Emergency surgery N=197
Depression at 0 week	46 (9.89%)	21 (10.65%)
Depression at 3 weeks	148 (31.82%)	61 (30.96%)
Anxiety at 0 week	50 (10.75%)	98 (48.22%)
Anxiety at 3 weeks	139 (29.89%)	78 (39.59%)

DISCUSSION

Our present study aimed to determine the frequency of psychological problems like depression and anxiety in elective and emergency post-operative in patients. The results of the study showed that approximately one third of patients have depression and anxiety. The results showed that the anxiety is higher in emergency surgery patients at the time of admission than elective surgery. The psychological condition of the patients in surgery varies based on the type of surgery. Previous research by Basak F. et al.[11] shows that type of surgery has a high influence on the frequency of depression and anxiety. A study recently has explored the pre-operative anxiety and fears associated with anesthesia, surgical failures, lack of information related to illness and death by Brown S. and in the study by Clarke et al.[12,13] Patients experienced anxiety without prior information and preparation for surgery as shown by Karanci et al.[14] De Oliveira et al.[15] found that the over elaboration of peri-operative mortality risk increased the pre-operative anxiety in patients and they tried to minimize the misleading consequences. The findings of our study are the significantly reduced rates of anxiety in pre-operative to post-operative emergency surgery group. The results are supported by study of Karanci et al.[14] Spielberger et al.[16] described that the rate of state anxiety was high before surgery, but begins to decrease throughout healing.

In a study by Daratha et al.[17] examining hospital inpatients setting, only 2.3% of adult patients who were hospitalised for any medical conditions were diagnosed with co-occurring mood disorders. Our study, with a large sample size examining surgical patients shows much higher frequency of anxiety and depression. In contrast, a study by Rentsch et al,[18] looking at hospitalised patients in an internal medicine department, identified an estimate of 26% of patients with depressive disorders. These results are comparable to our study.

The HADS scale was used in this study, which could have a bearing on the results.This study employed a score of 8 or above on both HADS-A and HADS-D. HADS was found to perform well in assessing the symptom severity and caseness of anxiety disorders and depression in both somatic, psychiatric and primary care patients as well as medical and surgical patients.[11] However, HADS is useful in screening of emotional distress in patients under investigation and treatment in medical and surgical departments.

CONCLUSION

We found that Depression and anxiety were quite frequent in the patients undergoing major surgery.

REFERENCES:

1. Botega NJ, de Azevedo RC, Mauro ML, Mitsuushi GN, Fanger PC, Lima DD, et al. Factors associated with suicide ideation among medically and surgically hospitalized patients. Gen Hosp Psychiatry 2010; 32: 396-400.
2. Pakriev S, Kovalev J, Mozhaev M. Prevalence of depression in a general hospital in Izhevsk, Russia. Nord J Psychiatry 2009; 63: 469-74.
3. Cosco TD, Doyle F, Ward M, McGee H. Latent structure of the Hospital Anxiety And Depression Scale: a 10-year systematic review. J Psychosom Res 2012; 72: 180-4.
4. Fan VS, Ramsey SD, Giardino ND, Make BJ, Emery CF, Diaz PT, et al. National Emphysema Treatment Trial (NETT) Research Group. Sex, depression, and risk of hospitalization and mortality in chronic obstructive pulmonary disease. Arch Intern Med 2007; 167: 2345-53.
5. World Health Organization and World Organization of Family Doctors. Integrating Mental Health into Primary Care: A Global Perspective. Geneva: World Health Organization, 2008.
6. Elliot PC, Murphy BM, Oster KA, Le Grande MR, Higgins RO, Worcester MU. Changes in mood states after coronary artery bypass graft surgery. Eur J Cardiovasc Nurs 2010; 9: 188-94.
7. Douki ZE, Esmaeili MR, Vaezzadeh N, Mohammadpour RA, Azimi H, Sabbaghi R, et al. . Maternal child abuse and its association with maternal anxiety in the socio-cultural context of Iran. Oman Med J 2013; 28: 404-9.
8. Tully PJ, Baker RA. Depression, anxiety, and cardiac morbidity outcomes after coronary artery bypass surgery: a contemporary and practical review. J Geriatr Cardiol 2012; 9:197-208.
9. Stundner O, Kirksey M, Chiu YL, Mazumdar M, Poultsides L, Gerner P, et al. . Demographics and perioperative outcome in patients with depression and anxiety undergoing total joint arthroplasty: a population-based study. Psychosomatics 2013; 54: 149-57.
10. Shapira-Lichter I, Beilin B, Ofek K, Bessler H, Gruberger M, Shavit Y, et al. Cytokines and cholinergic signals co-modulate surgical stress-induced changes in mood and memory. Brain Behav Immun 2008; 22: 388-98.
11. Basak F, Hasbahcec M, Guner S, Sisik A, Acar A, Yucel M, et al. Prediction of anxiety and depression in general surgery inpatients: A prospective cohort study of 200 consecutive patients. Int J Surg 2015; 23(Pt A): 18-22.
12. Brown S. Quantitative measurement of anxiety in-patients undergoing surgery for renal calculus disease. J Adv Nurs 1990; 15: 962- 70.
13. Clarke DM, Russell PA, Polglase AL, McKenzie P. Psychiatric disturbance and acute stress responses in surgical patients. Aust N Z J Surg 1997; 67: 115- 8.
14. Karanci AN, Dirik, G. Predictors of pre-and postoperative anxiety in emergency surgery patients. J Psychosom Res 2003; 55: 363-9.
15. De Oliveira GS Jr, Holl JL, McCarthy RJ, Butt ZA, Nouriel J, McCaffery K, et al. Overestimation of mortality risk and preoperative anxiety in patients undergoing elective general surgery procedures: a propensity matched analysis. Int J Surg 2014; 12: 1473-7.
16. Spielberger CD, Auerbach SM, Wadsworth AP, Dunn TM, Taulbee ES. Emotional reactions to surgery. J Consult Clin Psychol 1973; 40: 33-8.
17. Daratha KB, Barbosa-Leiker C, Burley HM, Short R, Layton ME, McPherson S, et al. Co-occurring mood disorders among hospitalized patients and risk for subsequent medical hospitalization. Gen Hosp Psychiatry 2012; 34: 500-5.
18. Rentsch D, Dumont P, Borgacci S, Carballeira Y, deTonnac N, Archinard M, et al. Prevalence and treatment of depression in a hospital department of internal medicine. Gen Hosp Psychiatry 2007; 29: 25-31.