

ASSESSMENT OF DEPRESSION IN ORTHOPAEDIC PATIENTS

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ABSTRACT :

One hundred consecutively admitted major orthopaedic patients (age 18-70 years) were studied. By using DSM III-R criteria for Major depressive Episode and Hamilton Rating Scale for Depression 16 were found to have major depressive disorder after orthopaedic illness. Among them 3 were severe, 8 were moderate and rest 5 were mild. Another 33 showed evidence of depression as symptoms. Therefore, 49% of the total cases were identified to have depression. There was no statistically significant nondepressed and depressed orthopaedic patients. Patients having malignant neoplasia of bones are more vulnerable to develop depression. All the depressed orthopaedic patients had depressed mood and all of them expressed somatisation. None of them were getting psychiatric treatment which indicates lack of awareness about the existence of depression among the orthopaedic patients.

INTRODUCTION

A substantial number of patients on nonpsychiatric services suffer from undiagnosed psychiatric conditions. From a number of studies it is found that the prevalence of psychiatric disorders in medical or surgical patients is in the range of 20—80%, among them depression in various forms is common.

Several studies have been carried out in abroad regarding psychiatric aspects of

orthopaedic patients. Persistent and refractory depression of mood has frequently reported 10—47%, Folstein et al (1977) reported 10% and 13% consecutive patients examined were depressed as measured by the Hamilton Rating Scale, the Visual Analogue Mood Scale, the Present State Examination, and the Mini-Mental State Examination. Kuhn et al (1989) found that 46.8% consecutively admitted leg fracture patients demonstrated depression grouped by symptom constellation using Brief Symptoms Inventory questionnaire. According to diagnostic distribution he found 14.9% major depression and 21.3% dysthymic disorder using the diagnostic criteria of DSM-III.

This depression is commonly explained as an expected psychological reaction of the patient to his disability of restrictions in activity and is a barrier to recovery from orthopaedic problem.

The prevalence of depression in orthopaedic patients is not known in our country, as no study of depression following orthopaedic problem has yet been carried out. The study was designed to assess the prevalence of depression in orthopaedic patients either in the form of syndrome (Major Depressive Episode) or symptoms and to compare the socio-demographic characteristics in major depressive group with nondepressive group of orthopaedic patients.

MATERIALS AND METHODS :

A consecutive series of 100 representative sample of orthopaedic patients admitted in the orthopaedic units of the hospitals of Dhaka city from January, 1992 to May, 1992 were

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included in the study. Of these 58 cases from Sir Salimullah Medical College Mitford Hospital, 31 cases from Dhaka Medical College Hospital and 11 cases from Institute of Post-graduate Medicine and Research, Dhaka.

All major orthopaedic patients of either sex and any age were included in this study. Children under 18 years of age and patients of cognitive impairment were excluded. Patients having depression and other psychiatric treatment before orthopaedic illness or family history of psychiatric disorders were excluded.

The patients were interviewed by pretested questionnaire after giving informed consent. History of the patients were taken and thorough medical, neurological and psychiatric examination were done. Medical record of all these patients were reviewed for additional information. Relevant information about orthopaedic problems including orthopaedic diagnosis was confirmed by orthopaedic specialists with the help of laboratory investigations where required.

Major depressive disorder was assessed clinically by DSM III-R operational criteria for Major Depressive Episode (MDE). DSM III-R diagnosis for major depressive disorder is a syndrome that includes a depressed mood and a series of specific somatic and cognitive symptoms of at least 2 week duration. Those patients failed to fulfil these criteria of MDE but has depressed mood with or without other symptoms were considered depression as symptoms. Then Hamilton Rating Scale for Depression (HRSD) was used to test and quantify it. HRSD is a five point scale with 17 items designed to diagnose and measure the severity of depression. Range of score of the scale is 0 to 54. A score of 17 or more was considered to identify depression and score between 17-20, 21-30, 31 and above were

considered mild, moderate and severe form of depression respectively. The data was recorded in individual sheet immediately after completion of desired data collection. The data so collected were processed and statistical analysis was done.

RESULTS :

In total 100 major orthopaedic cases were collected. Seventy one were males and 29 were females. Their age ranged between 18 and 70 years with a mean of 33 years (SD=12.57). Among the orthopaedic patients 16 (9 males and 7 females) were found to be suffering from depressive disorder (Major Depressive Episode) with a mean age 31.25 years (SD=11.66). The male female ratio here was 1 : 0.78. Another 33 had depression as symptoms. So, total 49% of the orthopaedic patients were found to be suffering from depression. Distribution of patients according to their age which is shown in table-I.

Most of the cases of both nondepressive and depressive orthopaedic patients were either illiterate (39%) or simply primary educated (32%). Both nondepressive and depressive orthopaedic patients were found mostly in male service holders, businessmen or cultivators and in female housewives. The rural and urban distribution of cases were 65% and 35% respectively but depressive disorder was found slightly higher in the subjects who came from the rural areas. Maximum cases of both in nondepressive and depressive orthopaedic patients were found lower income group and married. There was no statistically significant difference of these socio-demographic characteristics between nondepressive and depressive orthopaedic patients.

Orthopaedic diagnosis of the total sample are classified in table II. Most of the cases (42%) of both nondepressive and depressive group

suffered from fracture of lower limbs. The second most frequent diagnosis were chronic osteomyelitis (20%). Three patients suffered from osteogenic sarcoma and all of them were depressed (2 had depressive disorder and one had depression as symptoms). Only one case suffered from metastatic squamous cell carcinoma and he was found depressive in the form of MDE.

Among 16 orthopaedic patients of major depressive disorder 3 were severely depressives, 8 were moderately depressives and 5 were mildly depressives. The mean score of these depressive disorders found on HRSD was 21 (Table III).

In terms of relative frequency of depressive symptoms on the basis of DSM III-R, depressive mood was present as the main symptoms in all of the cases of depressive disorder (MDE). Loss of interest or pleasure and insomnia were found in 15 of the 16 depressed patients. Among the 16 major depressives, 15 were retarded and only one were agitated. Suicidal idea was less frequent symptoms, reported 6 of the 16 depressed patients (Table IV). The frequency distribution of symptoms of depression on the basis of HRSD was found more or less same as found on DSM III-R criteria..... It was reported from HRSD that all depressive orthopaedic patients had both somatic anxiety and general somatic symptoms. Hypochondriasis was reported 12 of the 16 major depressives.

Among the 16 depressive orthopaedic patients none were receiving antidepressants or any other psychiatric treatments.

DISCUSSION :

The present study included only hospitalised orthopaedic patients and depression was found to be 49% of these orthopaedic patients (16% were diagnosed as

depressive disorder and 33% were considered depression as symptoms). The result obtained from both DSM III-R and HRSD for diagnosis of depression are the same. This measure ensures the reliability of the patients before their orthopaedic illness. But in any way the figure should not go above what is found in general population. From different studies it is found that depression in general population is 3-4%. These figure is much lower than seen in orthopaedic patients. Moreover the possibilities of having depression before stroke was excluded by taking elaborate history. About the presence of other studies (Folstein et al, 1977; Kuhn et al, 1989) where it varies between 10-47%.

In this study major orthopaedic patients were considered as cases. Among 16 depressed orthopaedic patients 7 were diagnosed as fracture of the lower limbs from Road Traffic Accident (RTA), 2 were chronic osteomyelitis, one was arthritis, 2 were bone T.B., 2 were osteogenic sarcoma, one was metastatic squamous cell carcinoma and one was Buerger's disease with limb amputation. The malignant neoplastic conditions were found solely depressives. Though these sample were very small in number but the depression might have some aetiological relationship with type and severity of the orthopaedic problems specially with the malignant neoplasia of bone. Further works required on this aspect/

So far the severity of depression is concerned, among the 16 depressive orthopaedic patients 3 were severe, 8 were moderate and 5 were mild according to DSM III-R criteria. HRSD was also used to test and quantify depression. Both the diagnosis and severity of depression assessed by HRSE were well consistent with that of DSM III-R which is mentioned above. This indicates reliability and validity of the diagnosis.

In this study, depressive disorder was found 12 of the 16 patients who had their orthopaedic illness during previous 6 months. Folstein et al (1977) found the duration of illness of orthopaedic patients within one year. The orthopaedic problem itself can act as a life event. Paykel (1978) found that the risk of developing depression increased 6 fold in the 6 months after experiencing threatening life events. Brown et al (1977) observed that life events were found to be more common to some extent for at least one year before onset of depression.

According to DSM III-R all the depressive orthopaedic patients had depressed mood. Other most frequent symptoms were found diminished interest of pleasure and insomnia (15 out of 16). Psychomotor retardation was more frequent (15 out of 16) than agitation (1 out of 16). Guilt feeling was 12 out of 16. Suicidal idea was only 6 out of 16. These symptoms were consistent with symptoms frequency which were reported on HRSD. Moreover, from HRSD it was observed that somatic anxiety and general somatic symptoms were invariably associated with all depressive orthopaedic patients. Hypochondriacal symptom was associated with 75% (12 out of 16) of cases. All these somatic symptoms might be partly due to the presenting orthopaedic illness but mainly due to somatisation which is the tendency of patients of nonwestern societies.

In present study, 50% of depressive orthopaedic patients had associated other diseases. Depression may be a reaction to loss of physical health and function (Murphy, 1982). So, these illnesses might have some aetiological relationship with emergence of depression.

Here, in this study none of the 16 depressed orthopaedic patients were getting psychiatric treatment. This indicates lack of awareness about the existence of depression among the

orthopaedic patients.

Depressed orthopaedic patients need psychiatric treatment and major orthopaedic patients in general need counselling to help them to adjust adequately in the new situation of life because major orthopaedic illness itself is a major life event.

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