Co-Morbid Anxiety and Depression Among Pulmonary Tuberculosis Patients

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**ABSTRACT**

The need to recognize and manage psychiatric co-morbidity in tuberculosis (TB) patients in primary care settings in order to improve adherence to the treatment is now well documented. Pulmonary TB patients at the District TB Control Office and TB Centre in Haripur from December 2007 to March 2008 were evaluated in order to assess the frequency of anxiety and depression and continuation of treatment. Forty seven out of 65 (72%) TB patients had severe/moderate level of anxiety and depression according to Hospital Anxiety and Depression Scale (HADS). Fourteen (22%) TB patients with co-morbid anxiety and depression showed multi drug-resistance (MDR-TB).

Very few researches are available regarding psychiatric disorders and illness perception of tuberculosis patients. Studies propose that psychosocial elements have mostly been ignored under DOTS. A chronic debilitating disease like TB has many psychosocial parameters; a valid illness profile of the patients should be considered during treatment. Research revealed that psychiatric morbidity is associated with non-compliance to medication among TB patients, the commonest condition being depression. These studies suggest early diagnosis of depression and the use of anti-depressant medication and counselling for patients with tuberculosis.

The intent of this research was to detect the level of anxiety and depression among TB patients at early stage and subsequently how it can improve continuation and adherence to treatment. Data were collected from consecutive 65 newly diagnosed TB patients of either gender who visited District TB Control Office and TB Centre in Haripur from December 2007 to June 2008 after taking informed consent. Newly diagnosed cases of pulmonary tuberculosis that refused to participate and old cases of TB already on treatment were excluded.

Demographic forms were used to take detailed information regarding patients' demographic profile. The level of anxiety and depression among TB patients was recorded by using Hospital Anxiety and Depression Scale (HADS).

The results of the present study showed that anxiety and depression were present among TB patients. MDR-TB was present in patients with co-morbid anxiety and depression. Mean HADS score was 10.3 ± 2. Final results showed that out of 65 patients, 47 (72.2%) when screened for anxiety and depression had severe to moderate degree of anxiety and depression, which can be attributed to a disease like TB. According to HADS scoring, 23 (35.3%) individuals had high level of anxiety and depression, 24 (36.9%) had moderate level of anxiety and depression, whereas 18 (27.6%) showed no signs of anxiety and depression (Table I). All subjects of the present study were followed-up to 6 months till the course of anti-tuberculosis treatment was completed. According to the concluding results by the end of 6 months, 14 (22%) patients having moderate to severe level of co-morbid anxiety and depression showed MDR-TB and therefore, did not adhere to the treatment for 6 months. The rest of 33 (50.7%) complied to TB treatment as after early screening of anxiety and depression they consulted a local psychiatrist for the diagnosis and treatment of anxiety and depression. Their adherence to TB treatment can be attributed to early detection and timely intervention of anxiety and depression. While among 18 (27.7%) TB patients who

<table>
<thead>
<tr>
<th>Category</th>
<th>Total patients</th>
<th>Percentage</th>
<th>(MDR-TB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal (HADS score 0-7)</td>
<td>18</td>
<td>27.7%</td>
<td>3 (17%)</td>
</tr>
<tr>
<td>Borderline abnormal (HADS score 8-10)</td>
<td>24</td>
<td>36.9%</td>
<td>4 (17%)</td>
</tr>
<tr>
<td>Abnormal (HADS score 11 or over)</td>
<td>23</td>
<td>35.3%</td>
<td>10 (43%)</td>
</tr>
</tbody>
</table>

**Table I: TB patients having co-morbid anxiety, depression and MDR-TB (N=65).**
had no co-morbid symptoms of anxiety and depression, only 3 (4%) showed MDR-TB. One study conducted on United Kingdom based sample of TB patients, higher rates of depression and anxiety were observed in the poorly compliant TB patients. Thus, treating psychological problems in patients with tuberculosis may significantly improve treatment adherence, although further research is needed. Results of study conducted on 108 TB patients showed that half of the patients met the criteria for probable depression and anxiety based on HADS score. Depression and lack of perceived control over illness in those suffering from tuberculosis were reported to be independent predictors of poor adherence.

The demographic profile of the sample showed that more middle age (mean age 36 years), married 44 (68%), less educated (6.5 mean years of education), low socioeconomic class 55 (85%) and patients from rural background, 57 (88%) were affected by TB with co-morbid anxiety and depression. Similar results were shown by the study conducted on 150 patients of pulmonary tuberculosis. Co-morbid depression was observed among females, labour class patients, illiterates, separated or widowed and those TB patients who had low per capita income.

The present research concluded that level of depression and anxiety was high among TB patients. Reasons for their higher level of anxiety and depression was their misconception about TB. They considered TB as a dangerous disease that had less chances of survival and cure that resulted in discontinuation of treatment. Other causes reported were lengthy process of treatment, disturbances in their life routine and its chronicity. It is suggested that in order to improve adherence and continuation of DOTS, as multi-drug resistance (MDR-TB) is common among TB patients, timely treatment of symptoms like anxiety and depression can play an important role. It can be hypothesized that TB patients diagnosed and treated in time for psychiatric co-morbidity are more likely to continue with TB treatment. To further address this important issue in future, comparative studies on larger random samples taken from different private and government sector hospitals and TB centres across the country are recommended.

REFERENCES