

How prevalent are depression and anxiety symptoms in hypothyroidism?

Sir,

I read with interest the study on the prevalence of anxiety and depressive symptoms in patients with hypothyroidism by Bathla *et al.*^[1] in the July–August issue of 2016. The study design was cross-sectional and observational. The authors have administered 17-item Hamilton depression rating scale (HAM-D) and 14-item Hamilton anxiety rating scale (HAM-A) on 100 patients aged between 18 and 45 years, diagnosed with hypothyroidism, and found depressive and anxiety symptoms in 60% and 63%, respectively. However, I would like to draw attention to some of the shortcomings in their study. The study has excluded patients having depressive disorder and anxiety disorder before the diagnosis of hypothyroidism and those having below primary education, which actually underestimated the prevalence rates of depressive and anxiety symptoms.

The authors have examined gender differences in the presence of depressive and anxiety symptoms, i.e., HAM-D and HAM-A items, although it is not clear why only 11 out of 17 HAM-D and 11 out of 14 HAM-A items are reported. Furthermore, the authors have not controlled for multiple testing, which can be done using a method such as Bonferroni correction to reduce the family-wise error rate.^[2] After correction, some of the significant differences will become nonsignificant.

It is known that HAM-D and HAM-A are loaded with somatic items,^[3] which may also be a part of clinical features of hypothyroidism. Therefore, in the presence of

medical condition, an “exclusion approach” is preferred, in which the symptoms that are common to both medical and psychiatric disorder are not included. Therefore, the Hospital Anxiety and Depression Scale (HADS), which has been designed to measure both anxiety and depressive symptoms, excluding somatic symptoms, in patients with medical disorders would have been more appropriate for this study.^[4]

Furthermore, the conclusions and recommendations by the authors are not based on the study findings. For example, it is suggested that hypothyroid patients not showing adequate response with treatment should be screened for depression and anxiety symptoms, which was not explicitly examined in their study. Similarly, the suggestion that patients with depression and anxiety, when do not respond to medications need to be screened for thyroid status, is nowhere related to their study. Nevertheless, both of the statements are correct and standard practice at most centers.

The study is also limited by lack of controls, i.e., euthyroid individuals could have been screened for depressive and anxiety symptoms. Furthermore, the details of diagnosis of hypothyroid patients could have been provided, for example, thyroid-stimulating hormone levels, etiology of hypothyroidism. Also, no details of psychiatric diagnosis were provided, for example, type of anxiety disorder. In addition, the authors could have examined the factors associated with depressive and anxiety symptoms in hypothyroid patients.

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Conflicts of interest

There are no conflicts of interest.

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