IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 14, Issue 10 Ver. V (Oct. 2015), PP 105-107
www.iosrjournals.org

Depression A Psychiatric Co-Morbidity In Chronic Daily Headache: A Review

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Abstract: *Chronic daily headache (CDH) is the most common headache problem seen in clinics specifically devoted to headache management and its prevalence in the general population is almost 5%. Clinicians noticed potential links between CDH and certain psychopathological traits. More recently, rigorous methodological studies have confirmed some of those links. Several reviews have shown a strong correlation between migraine, major depression and certain anxiety disorders. Depression emerged as the most prevalent psychiatric disorder in both the headache groups. Presence of depression is a negative prognostic indicator for behavioural treatment of headaches. The main purpose of the present paper is to review the psychiatric co-morbidities associated with chronic daily headache.*

Keywords: *Depression, chronic daily headache, migraine, anxiety disorder*

I. Introduction

Chronic daily headache

Chronic Daily Headache (CDH) is a descriptive term and not a diagnosis per se. Chronic daily headache is a widespread clinical disorder characterized by headaches occurring on a daily, or near daily basis-that is, at least 15 days or more a month.[1,2] The term CDH is mainly referred to the primary headache disorder, although secondary CDH must be excluded. The primary CDH is divided into short and long duration. The short duration i.e. lasting < 4 hours include various trigeminal autonomic Cephalalgias (TAC) including cluster headaches (CH), paroxysmal hemicrania (PH) and others such as hypnic headaches, primary stabbing headaches etc. Those that last > 4 hours include chronic migraine (CM), chronic tension type Headaches (CTTH), hemicrania continua (HC) and new daily persistent headaches (NDPH) although CM and CTTH account for the vast majority.[3]

Depression

A major depressive disorder occurs without a history of a manic, mixed, or hypomanic episode. A major depressive episode must last at least 2 weeks, and typically a person with a diagnosis of a major depressive episode also experiences at least four symptoms from a list that includes changes in appetite and weight, changes in sleep and activity, lack of energy, feelings of guilt, problems thinking and making decisions, and recurring thoughts of death or suicide.[4]

Prevalence of depression and other psychiatric disorders in Chronic daily headache patients

Epidemiological studies have established a strong association between primary headaches and psychiatric disorders,[5] and the reported prevalence was 66.1%,[6] depressive and anxiety disorders being the common disorders.[5,7,8] The reported rates of psychiatric co-morbidity ranged between 69-87% in migraine and 45-56% in tension type of headache (TTH).[5,6,9,10] Anxiety and mood disorder are more common in women with CDH than in men.[11]

According to recent Indian study Psychiatric co-morbidity is present in 53.3% patients of CDH. Major depressive episode, generalized anxiety disorder, dysthymia and agoraphobia are the significant psychiatric co-morbidities observed in patients with CDH in this study. According to this study there is no significant difference in the various types of psychiatric co-morbidities in patients having CM in comparison to CTTH and they did not find any significant relation between age, sex, duration of disease, educational status, socioeconomic status and marital status with the presence of psychiatric co-morbidity[12]. The commonest psychiatric co-morbidity in patients with CM is major depressive episode.[12,13]

Association between CDH and psychiatric co-morbidity may be explained by shared mechanism in structures of the central nervous system between pain and affective disorders, perhaps involving Limbic activation.[14] Common pathogenic mechanisms between migraine and mood disorders have been implicated, including a decrease of platelet serotonin concentration, an increase of urinary 5-hydroxytryptamine and a possible increase of 5-hydroxyindole acetic acid.[15] A small study using MMPI-2 with CDH patients, significantly high scores have been reported for the scales measuring hysteria, hypochondriasis, psychasthenia, depression, and social introversion.[16]

Researcher also reported a bidirectional relationship between migraine and depression with migraine signaling an increased risk for the first onset of major depression, and major depression signaling an increased risk for the first time occurrence of migraine. The lifetime prevalence of major depression was threefold higher in persons with migraine and in persons with severe headache, compared with persons having no history of severe headache.[17,18] The suicidal risk seen in an Indian study was 22.03%, which is similar to the observations of other researchers.[12,19]

Management approach

There is evidence that suggests that psychological distress and behavioral problems can predict the onset or exacerbation of headache[20], as well as factors like perceived stress[21] and anger, agitation, or loneliness.[22] Major depression in adolescents, without current or past headache, prospectively predicts onset of headaches in young adulthood[20], while anxiety precedes migraine.[23,24] Latest research also suggest that depressive symptoms are associated with persistence of chronic headache, and psychological and socioeconomic factors predicts new onset CDH.[25]

Researchers studied the relationship between psychiatric disorders at initial evaluation and headache status at follow up and they found that patients with two or more psychiatric disorders at initial evaluation exhibited no improvement or deterioration in headache in 57% of the cases at follow up; 29% of cases were improved and only 14% cases were headache free. Patients with no or only one psychiatric disorder exhibited greater headache improvement 8 years after the initial evaluation. Only 15% of cases were the same or worse, while 53% of cases were improved and 40% cases were headache free.[14]

Latest Indian study reported that improvement in headache is more likely to occur in patients without a psychiatric co-morbidity and those with duration of headache less than 2 years. There was a significant decrease in major depressive episode and generalized anxiety disorder at 3 months follow up after appropriate treatment.[12]

In patients with frequent and chronic headache, however, one should consider prophylactic medication[26], but the presence of psychopathological symptoms might impact the outcome[27,28] and accordingly require a combined approach with psychological interventions.[29,30,31]

Taken together, the phenotypic expression (headache severity and co-occurrence of other somatic and psychological complaints), impact on function and coping, and identified potential risk and protective genetic and environmental factors form the basis for clinical assessment and tailored intervention. Headache is largely a multifactorial disorder, and interventions need to be designed thereafter.[32]

II. Conclusion

Psychiatric co-morbidity, especially depression is common in patients with migraines and tension type headache. Quality of life and functional ability are significantly impaired in these patients. The clinician should remain aware of consequences of prolonged headache, and should provide timely intervention.[33] Recognition and appropriate treatment of psychiatric disorders is likewise essential. Adjunctive nondrug therapies and lifestyle changes round out the requirements for a management plan. The chances for long term remission or significant improvement are up to 65%. The patient and physician must understand that CDH is a long term process with relapses and remissions. A strong and trusting relationship between patient and physician is a major asset in managing this condition.[34,35]

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