

# Comorbidity of Migraine and Depression – Factors for an Efficient & Cross-sectoral Therapy

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## Abstract:

Comorbidity is described as an illness that happens more frequently in connection with a specific condition than would be expected as a coincidental relationship in the general population. Depression, anxiety, stroke, epilepsy, sleep problems, and other pain illnesses are all common comorbidities with migraine. Furthermore, many common disorders occur concurrently (at the same time) with migraine, influencing therapy options (Anzola G.D, 1999). When individuals have comorbid or concurrent conditions, migraine therapy, and especially migraine prevention, can be difficult.

## Introduction

Migraine is a condition that affects around 13% of the general population and is linked to a number of comorbid and concurrent disorders

that affect treatment options. Concomitant (co-existent) diseases occur in the same individual at a rate that would be predicted by chance. Comorbid problems including depression, anxiety disorder

ders, epilepsy, sleep disorders, and stroke, as well as concurrent illnesses like hypertension and obesity, are all linked to migraine and impact its treatment. Migraine is a chronic and severe neurologic illness marked by recurrent occurrences of headache pain and accompanying symptoms (Tzourio C. 2000). Migraine affects around 1 in every 7 persons worldwide, with a frequency of over 1 billion people. It only trails lower back pain as the biggest cause of years spent disabled.

Migraine with depression and anxiety are often seen together. Although estimates vary, up to 47% of patients with migraine have concomitant depression, and up to 58% have comorbid anxiety, according to population-based surveys. Persons with chronic migraine (CM; defined as at least 15 headache days per month for the previous 3 months with migraine characteristics present on at least 8 days per month) had higher rates of depression and anxiety than people with episodic migraine (EM). Furthermore, among patients with EM, the presence of concomitant depression has been linked to an increased likelihood of progression to CM the following year (Meier C.M. 2008). Comorbid depression and migraine have a bi-directional relationship. This is in line with the growing body of data linking migraine, depression, and anxiety to hereditary factors. In general, both migraine and mental illnesses such as anxiety and depression are associated with exacerbated symptomatology for each condition. Persons with migraine who have concomitant depression and anxiety have higher health expenses and drug use than people with migraine who do not have these comorbidities. Psychiatric comorbidities in migraine can reduce quality of life (QoL) and enhance migraine's burden and impairment. Comorbid depression and/or anxiety can influence drug selection, preventative medication response, behavioral migraine therapy, and migraine treatment plan adherence. Separate and combined connections of depression and anxiety with disability in migraine sufferers have not been investigated; also, investigations of depression and anxiety with migraine disability have often not been adjusted for headache days.

### **Psychiatric and other comorbidities**

Migraine is connected with a wide range of comorbidities. The next section focuses mostly

on mental comorbidities; although biological processes are not well known, a bi-directional association between these illnesses is hypothesized. Migrainers are two to four times as likely than the general population to suffer from mood and anxiety problems. Despite their great incidence, psychiatric comorbidities are frequently overlooked. Migraine is associated with depression, which is a frequent comorbidity. Several studies have found that migrainers had considerably greater rates of depression than non-migraine research participants (47% vs. 17% & 40.7% vs. 16%). Patients with chronic migraine are more likely than those with episodic migraine to be diagnosed with depression (Barden N. 2004). According to a Web-based poll, 63.8 % of 2735 migraine patients, including 68 % with chronic migraine, experienced depression. Chronic migrainers are twice as likely than EM sufferers to be depressed. Depression is also a significant risk factor for migraine chronification.

Anxiety disorders such as generalized anxiety disorder, panic disorder, and particular phobias, as well as obsessive-compulsive disorders, are more frequent in migraine sufferers than depression. Patients with migraines are 4 to 5 times more likely to develop generalized anxiety disorder, and 10 times more likely to develop panic disorder (Santanello N., Buse D., 2010). Anxiety problems are more common in CM patients than in EM patients, and anxiety disorders are a strong predictor of chronification. Other psychiatric illnesses, including posttraumatic stress disorder (PTSD), are also more common among migraine sufferers than in the general population, and are more common in CM sufferers than in EM sufferers (30.3% vs. 22.4%). Psychiatric and other common comorbidities must be assessed in every migraine patient because they are likely to interfere with treatment outcomes, are risk factors for migraine chronification, and are linked to a higher level of quality of life impairment.

## **Multidisciplinary therapy's components**

### **Patient education**

Patient education is a crucial component of multidisciplinary treatment because it provides patients with a thorough grasp of headache pathogenesis, symptoms, and treatment options, inc-

cluding acute and preventative headache treatment. Common problems and misunderstandings can be explored among a group of people who have had similar experiences. Patient education enhances pharmacological therapy compliance and adherence, improves quality of life, and lowers disability and migraine frequency.

### **Pharmacological treatment**

To enable efficient multimodal therapy, acute and prophylactic treatment must, of course, be optimized. Because only half of individuals who get preventive therapy see a 50% reduction in their monthly attack frequency, 26 prophylactic medication must be re-evaluated and adjusted as needed. A consideration of the many alternatives for acute and preventive therapy would be beyond the scope of this paper. Patients with headaches may need to test a variety of medicines before finding the one that works best for them. Prophylactic therapy should be decided based on individual comorbidities and side effects in this regard.

### **Psychological treatment**

Psychological therapy is an important part of a multimodal treatment plan. It is efficient in reducing the frequency of headache attacks as well as the illness load. Over the course of several years, there is a significant reduction in headache activity. Its goal, based on the biopsychosocial paradigm, is to identify and change influencing variables including: catastrophizing; fear avoidance; endurance/over-activity all of which can contribute to migraine maintenance.

History, psychological testing, and education are all part of the psychological evaluation. Patients get knowledge regarding the interplay of physical, psychological, and social elements in the development and maintenance of their pain as part of psychoeducation (biopsychosocial model). In addition, the impact of stress and pain coping mechanisms and lifestyle variables in the advancement of headaches is discussed. Relaxation therapy, biofeedback, cognitive behavioral therapy, and stress management are some of the evidence-based approaches for psychological treatment that can be used alone or in combination (Becker C., Brobert G.P., 2008). We assist patients in finding a psychotherapist and/or psychiatrist for additional therapy if they have a high

level of impairment owing to headache and mental comorbidities.

### **Physiotherapy**

Many migraine sufferers complain of musculoskeletal issues including neck discomfort, which is frequently cited as a "trigger" for migraines, and lower back pain. Physiotherapy can help with these issues, but it's important to remember that patients are more likely to respond to active techniques, so passive approaches like manual therapy or trigger point treatment should be avoided or used only in conjunction. Regular aerobic exercise can also help to minimize headache activity. In this regard, physiotherapists assess such musculoskeletal issues and aid in the development of an individualized therapy program that is most suited for each patient. Patients should be able to continue their active training on their own (Alehan F., Ozçay F., 2008). Although there is less evidence for the usefulness of physiotherapy, there is widespread agreement that combining it with other therapies in a multidisciplinary approach may be more effective.

### **Treatment of Migraine**

The healthcare professional has access to a variety of effective acute and preventative pharmaceutical and non-pharmacological (ie, biobehavioral) treatments for migraine treatment. The major aims of treatment are to prevent attacks wherever feasible, treat them quickly and consistently with no recurrences, and restore the patient's capacity to function and HRQoL. Each patient's treatment should be tailored to their specific needs, taking into consideration factors such as the frequency and severity of migraine attacks, trigger factors, comorbidities, the patient's lifestyle, and personal preferences.

A lot of study has been done on migraine medication. Certain non-specific medications used for different pain diseases, including headache (e.g., aspirin, acetaminophen, non-steroidal anti-inflammatory drugs) and migraine-specific agents are the mainstays of acute migraine treatment (eg, ergotamine, dihydroergotamine, and the triptans). Treatment is raised throughout or within attacks in the stepped-care approach to acute care, starting with mild analgesics. If these treatments are ineffective, a combination of analgesics and antiemetics, or another medication,

may be attempted (Aamodt A. H., Stovner L. J., Langhammer 2007)

Migraine-specific medications are only used after other, less costly therapies have failed. The US Headache Consortium recommends a stratified-care approach, in which the choice of medication is influenced by the frequency and severity of migraine attacks, the degree of disability, associated non-headache symptoms like nausea, previous medication response, and the presence of any comorbid disorders. Aspirin, ibuprofen, butorphanol nasal spray, oral opiate combinations, dihydroergotamine nasal spray, and triptans are the medications with the best quality of evidence of effectiveness (Lipton R.B. 2010) (injection, oral, and nasal spray).

Patients with moderate to severe migraines or milder headaches who do not react satisfactorily to non-steroidal anti-inflammatory medicines or a combination of treatments, such as aspirin, acetaminophen, and caffeine, might consider triptans (Andlin-Sobocki P., Jönsson B, 2005). According to health care experts, patients must understand how to use acute migraine medicines efficiently, and that overuse can increase the frequency and intensity of headaches as well as degrade therapeutic efficiency.

Healthcare providers should discourage patients from expecting the use of symptomatic medicines and put limitations on their use to prevent the development of medication overuse headache. Almost 40% of migraineurs fit the requirements for preventive therapy, despite the fact that the majority of migraineurs use acute medicine. Preventive therapy aims to decrease or eliminate migraine episodes, as well as the impact of recurrent attacks on the patient's HRQoL and degree of impairment, increase the efficacy of acute treatment, and, in certain cases, avoid the progression of episodic migraine to chronic migraine. Preventive medicines are frequently underutilized in people who would be good candidates and benefit from them. According to the American Migraine Prevalence and Prevention study, 43.3% of migraineurs had never used a migraine preventive agent, despite the fact that 32.4% of them satisfied professional guidelines for considering it (13.1%) or being given one (19.3%). One factor for migraine undertreatment might be that healthcare workers are unaware of the good benefits of preventative medicines on

migraineurs' HRQoL. Physicians can decide whether to explore or give preventative treatment by using AMCS II interviewing procedures to evaluate the number of migraine days and degree of impairment.

## Conclusion

Despite the availability of excellent therapy and management options, migraine headache remains an under-recognized and undertreated neurologic condition. When health care providers and patients effectively communicate about the burden of migraine, as indicated in treatment recommendations, care improves. Healthcare providers should assess the effects of migraine pain, disability, and impaired HRQoL on a regular basis to determine if patients are receiving successful therapy and whether further treatment techniques are necessary. Active listening, open-ended questioning, and the "ask-tell-ask" method are all techniques that healthcare providers can use to support good communication. Furthermore, a range of evaluation instruments and procedures are available for assessing migraine burden, HRQoL, and common comorbidities. PHQ-9 and Generalized Anxiety Disorder 7 may help measure depression and anxiety, 2 prevalent migraine comorbidities.

The MPQ-5 can aid in the selection of suitable individuals for preventative therapies. For treating acute attacks, avoiding future attacks, and enhancing the HRQoL of migraine sufferers, a range of effective medicines and empirically proven bio-behavioral therapies are available. Using assessment tools and excellent communication skills to accurately analyze individual patients' requirements will aid in the creation of the best treatment approach for them.

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