#### PHYSICAL SYMPTOMS IN DEPRESSION

Interview with Thomas W. Koenig, MD

Dr Koenig is Assistant Professor, Department of Psychiatry, and Attending Psychiatrist, Johns Hopkins University School of Medicine, Baltimore, Maryland. He received his medical degree in 1985 and completed his residency in psychiatry at Johns Hopkins University School of Medicine. He attends on the Psychiatry Consultation Liaison service and at the Pain Treatment Center, an inpatient/day hospital program for the treatment of patients with chronic pain. He also serves as a member of the Medical School Council as a representative of the Department of Psychiatry and Behavioral Sciences. and as a member of the Task Force on Outcomes Measures for Medical Student Education in Psychiatry. He has received numerous awards for educational endeavors in psychiatry, including the 11th Annual Johns Hopkins University Alumni Award for Excellence in Undergraduate and Graduate Medical Education (2002) and the 1st Annual Paul R. McHugh Award for Excellence in Residency Education in Psychiatry (2002). He was also the 2003 American Association of Medical Colleges' "Humanism in Medicine Award" nominee from the Johns Hopkins University School of Medicine.

The Senior Clinical Editor for this issue of Advanced Studies in Medicine (ASiM) interviewed Dr Koenig to discuss the presentation of somatic symptoms in patients with depression and the barriers to recognizing these symptoms earlier.

AS iM: How common are physical [somatic] symptoms in the patients you treat for depression? Do patients tend to associate physical symptoms with depression, or is the relationship even considered?

Dr Koenig: Physical symptoms in patients with depression are incredibly common. Diagnostic criteria for depressive disorders include decreased vital sense, fatigue, and changes in sleep and appetite. Numerous studies have also shown a significant relationship between depression, chronic pain, and other physical symptoms, although the exact nature of the relationship is unclear. Katon and colleagues demonstrated a linear relationship between lifetime depression and anxiety disorders and the number of medically unexplained symptoms patients report over time.1 Other studies have shown that conditions such as chronic back pain or chronic dizziness without clear etiologies are associated with a prevalence of recurrent depression near 60% or greater compared with less than 20% in other medically ill control groups.<sup>2-4</sup> We also know from the literature that first-degree relatives of patients with chronic pain have significantly increased rates of depressive disorders compared with the general population.<sup>5</sup> All of these lines of evidence and many more underscore the mood/somatic connection.

Patients (and practitioners) often fail to associate their physical symptoms with an affective disorder. Patients frequently think about depression as only causing low mood or sadness and view their somatic complaints as independent phenomena. Many to most of these patients present to nonpsychiatrists because of their physical symptoms rather than with complaints of mood changes. However, some patients with recurrent depression have learned with education over time that a return of pain or other somatic symptoms may

Advanced Studies in Medicine ■ S11

be the very first harbingers of another episode of depressive illness.

### AS*i*M: In a general psychiatry practice, what are the most common physical symptoms of depression [pain and others]?

Dr Koenig: As mentioned above, changes in sleep and appetite as well as extreme fatigue are included as actual criteria for the diagnosis of major depression. However, patients also frequently present with headaches, back pain, GI [gastrointestinal] distress (including abdominal pain, reflux, diarrhea, and nausea), chest heaviness, and sexual difficulties (either decreased libido or changes in arousal or orgasmic function).

## ASiM: Do depressed patients discuss these associated symptoms spontaneously or is further questioning necessary?

Dr Koenig: It may depend upon the person to whom the patient is providing the history. In primary care settings, patients often go to their doctors to discuss somatic symptoms and may be less likely to complain spontaneously of changes in their mood state. They may actually view the mood symptoms as reasonable consequences of feeling unwell physically. To psychiatrists, patients may more readily discuss changes in thoughts and feelings and not bring forth spontaneous somatic complaints. In both settings, I think it is incumbent upon the practitioner to do appropriate screening for both somatic and psychiatric symptoms when evaluating a patient thoroughly.

# ASiM: One can imagine a "catch-22" with depression being associated with painful physical symptoms and the presence of painful physical symptoms making the patient more depressed. How much does personality or attitude factor into this phenomenon? Do you often refer these patients for some type of psychotherapy?

Dr Koenig: Such a "catch-22" situation can certainly exist, and I think that is why a coordinated approach to patients' mood and physical symptoms is absolutely necessary. Trying to deal with either alone is frequently doomed to failure. Depression can affect pain syndromes in both physiological and psychological ways. Neurochemically, hypomonoaminergic states, which are hypothesized as possible causes for depression, may allow more nociceptive input from the periphery to reach the brain for processing. In addi-

tion, depression has been shown to be associated with greater interference from pain, more pain behaviors, feelings of less life control, and the use of more passive-avoidant coping strategies. Self-efficacy and hope are undermined. Conversely, any significant ongoing stressors, including severe chronic pain, can fuel an affective disorder in a vulnerable individual.

However, other factors, including personality, may also influence the experience of pain. Personality, of course, pervasively influences how we experience the world and respond to it. There is evidence to suggest an increased prevalence of personality disorders in some chronic pain populations. An example of how personality can influence the experience of chronic pain can be seen in the unstably extroverted individual who might fall under the Cluster B realm in the DSM (Diagnostic and Statistical Manual of Mental Disorders). These individuals are very present focused, and their behaviors are frequently motivated by their strong feelings. They tend to have difficulty in projecting themselves beyond the moment. Thus, if they are suffering in the present, feel that suffering strongly, and are unable to see beyond it, the burden of chronic pain might be more difficult to bear. In addition, these are people who often do not think about consequences in the future, which could lead them to adopt maladaptive ways of dealing with their pain syndrome in the present, including misuse or overuse of analgesics.

The literature has shown that for patients with significant comorbid depression and chronic pain, a multidisciplinary approach is the most successful; such a plan would definitely include psychotherapy. Supportive therapy has a significant role as we encourage, advise, and marshal resources around patients. But therapy can also tackle cognitions and behaviors that are limiting and counterproductive. The goal is to equip patients with a broader set of tools to deal with their pain syndrome and encourage active coping strategies.

ASiM: Because residual depressive symptoms, as illustrated in your case study, are important predictors of relapse, should a psychiatrist use a particular rating scale to assess these during long-term treatment, or is a more informal question-and-answer session with the patient more likely to yield information?

*Dr Koenig*: It depends on the individual practitioner, his or her background, and whether he or she is a

psychiatrist or primary care physician. There are some advantages to the scales if they become part of routine use, especially in the primary care setting. They may remind or prompt us that this is something to which we have to pay attention. In my practice, although those scales may be helpful in terms of assessing response, the results don't always give me as clear an idea of the patient's subjective experience. The scales are not able to capture everything we want to know about the patient's functionality, relationships, etc. Although many of these tools have very good reliability and validity, on a day-to-day basis, I don't rely heavily on the use of those scales. The interview and the interaction with the patient have very important roles; they provide you with data that no scale could ever convey.

ASiM: Dual-reuptake inhibitors (eg, mirtazapine, venlafaxine) have recently been studied for the treatment of pain conditions and the depressive symptoms associated with them. However, the studies have been small and were not randomized, controlled trials. The results suggest improvement in measures of pain and the other distressing symptoms (nausea, anxiety, insomnia, appetite), with improvement in depressive scores. Can you comment on these data and what you would like to see in controlled trials of these drugs?

Dr Koenig. I think it's encouraging and not necessarily surprising. Success with different kinds of antidepressants for somatic symptoms and, more specifically, pain symptoms, has clearly been demonstrated in the literature. Given the associations noted between depression and physical symptoms discussed above, one might expect such results. Interestingly, our experience has shown that even in patients in whom the "numerical" rating of pain on a visual analog scale does not change, improvements in depression are associated with decreased interference, improved function, and diminished sense of perceived disability.

Additional controlled trials either in placebo or comparison studies should focus on defining which subgroups of chronic pain patients might be most likely to respond to treatment for mood and pain symptoms. Patients with chronic pain are not a homogeneous group, and it would be helpful to identify a more specific approach given a certain constellation of mood and somatic complaints. The studies should also examine optimal dosing strategies to see if

depression and pain symptoms respond at similar or different dosing thresholds for different drugs.

ASiM: Tricyclic antidepressants have been shown to have analgesic properties in pain conditions. Would dual-reuptake inhibitors be expected to have analgesic properties, based on their known mechanisms of action? If not, what other mechanisms may explain their effect on pain symptoms?

Dr Koenig: As discussed above, depression and pain interact in several ways. The successful treatment of depression with a dual-reuptake inhibitor would be expected to improve chronic pain in patients by improving the psychological factors that color the experience of the pain and a patient's response to it. In addition, I also alluded to a neurochemical basis that could be associated with the analgesic properties of certain antidepressants. There are descending pathways in the spinal column that modulate the transmission of nociceptive input at the level of the spinal cord synapse. Dependent on monoamines, these tracts diminish painful signals that reach the brain. By optimizing noradrenergic and serotonergic transmission, analgesia may occur. Both tricyclic antidepressants and other dualreuptake inhibitors share this capacity.

ASiM: Venlafaxine, in particular, has been studied in other painful conditions, such as migraine, and depression and other psychiatric disorders are often comorbid with migraine. In what other types of painful conditions might dual-reuptake inhibitors be useful?

Dr Koenig: Although the exact mechanism by which tricyclics and venlafaxine aid in migraine prophylaxis is unknown, their efficacy has been demonstrated. I would expect some utility to be found in a range of chronic pain states, especially when they are comorbid with depression and anxiety symptoms. Conditions such as diabetic neuropathy and postherpetic neuralgia might be expected to improve with such treatment, as might many other syndromes.

However, it is important to remember that in the vast majority of patients with severe refractory chronic pain, pharmacologic treatments alone are rarely sufficient. Although they play an important and even central role in some patients, a coordinated treatment plan that attends to the patient's personality strengths and vulnerabilities, adaptive and maladaptive coping skills and behaviors, and life circumstances that might

Advanced Studies in Medicine ■ S13

fuel the pain syndrome is critical. I think that the psychiatrist is uniquely poised to aid in the treatment of these patients given our unique body of knowledge in these areas and familiarity with the pharmacologic and psychological interventions often employed to address their problems.

ASiM: Both mirtazapine and venlafaxine have been studied in patients with refractory depression, but pain symptoms were not specifically studied. Would there be benefit in studying dual-reuptake inhibitors in refractory patients and assessing pain symptoms to see if the pain symptoms are a cause or effect of poor response to therapy? How would you design that study?

Dr Koenig. I think such a study would be worthwhile, although fraught with methodologic problems. Determining cause and effect in psychiatry remains an incredibly challenging area. Noting correlations between differential responses of pain and depression still cannot lead us to infer causation. In addition, such a study would need to control for a large number of variables, including those we have already discussed that impinge on the experience of chronic pain. We might get a better idea about risk factors for refractory depression and pain states but will not be able to speak in clear terms of cause and effect.

ASiM: Given your experience, what advice would you offer your colleagues in a general psychiatry practice on the treatment of the somatic symptoms with depression?

*Dr Koenig*: My main advice is to remind ourselves of 2 fundamental tenets of good psychiatric and medical practice. The first is always to perform a complete

evaluation of the patient, including physical and psychiatric symptoms, and to obtain collateral information about the patient with his or her consent to provide as full a picture of the presentation as possible. Secondly, treatment should be based on an individual formulation of the patient. In the past, psychiatry at times lost its way when theoretical and therapeutic biases influenced the formulation of the patient. Diagnosis must always drive treatment not the other way around. Blanket approaches or algorithms can never replace the individualized treatment of the patient. That treatment should not be purely symptom driven. Therapeutic approaches must be directed toward the patient, not a subset of symptoms, and quality of life should be considered not only in terms of patient comfort but, just as importantly, function.

#### REFERENCES

- Katon W, Lin E, Von Korff M, et al. Somatization: a spectrum of severity. Am J Psychiatry. 1991;148:34-40.
- Atkinson JH, Slater MA, Patterson TL, et al. Prevalence, onset and risk of psychiatric disorders in men with chronic low back pain: a controlled study. *Pain*. 1991;45:111-121.
- Katon W, Sullivan M. Depression and a chronic medical illness. J Clin Psychiatry. 1990;150:3-11.
- Sullivan M, Katon W. Somatization: the path between distress and somatic symptoms. Am Pain Soc J. 1993; 2:141-149.
- Magni G, Andreoli F, Arduino C, et al. Modifications of 3H-imipramine binding sites in platelets of chronic pain patients treated with mianserin. *Pain*. 1987;30:311-320.

Vol. 4 (1A) ■ January 2004