Opioid Drug Addiction and Pain: Diagnostic and Management Challenges

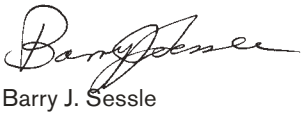
Chronic orofacial pain is common and complex, and it is frequently accompanied by comorbidities. These comorbidities include not only pain that may occur in other parts of the body (eg, neck pain, fibromyalgia, irritable bowel) but also psychosocial disorders such as depression, mood dysfunction, and sometimes substance use disorders involving drugs prescribed to manage the pain condition. For centuries, much has been written and discussed about the personal and societal impacts of those who are not in pain but use (ie, abuse) addictive opioid drugs for so-called recreational purposes, but in recent years there has been increasing attention by the public, the media, and health professionals, as well as by health professional regulatory and licensing bodies, to the prescribing practices of physicians and dentists of opioid drugs for the management of pain and to the benefits and the risks for patients taking these drugs. These risks include the possibility of patients developing tolerance, dependence, or even addiction to the drugs. Two recent articles[1,2] dealing with these and related issues caught my attention, since collectively they outline recent evidence bearing on the neurobiological processes underlying addiction as well as the diagnostic and management challenges for those physicians and dentists who prescribe opioids for pain patients or who have patients for whom these drugs have been prescribed by other clinicians.

Neurobiological and related behavioral research has identified a "reward center" in the brain and revealed that addiction appears to be a compulsive and pathophysiological preference for "natural rewards" that reflects a disorder of the reward center circuits, which utilize several neurochemicals, most notably opioids. The endogenous opioids in the brain also play a major role in the modulation of pain, and indeed clinical use is made of this role for pain control by the prescribing of opioid-related drugs that mimic the action of some of these endogenous opioids.

Ballantyne and Stannard[1] note a marked increase in opioid prescribing in several countries in recent years, paralleled by increased reports of opioid abuse and dependence. While opioid dependence, and addiction, can develop in chronic pain patients being treated with these drugs, the actual rates are unclear; for example, the rate of addiction ranges from 1% to 40% or more in different studies. How does one interpret or account for this huge rate variation? The low end of the range suggests opioid addiction in chronic pain patients may only be an occasional occurrence in some countries, but on the other hand the high rates suggest it may be in epidemic proportions in others. The answer probably lies in large part in the variability between the published studies on how addiction was defined and recognized. Regrettably, there has been no clear consensus on how to identify opioid addiction when it arises in a chronic pain patient. However, Ballantyne and Stannard[1] draw attention to recent behavioral criteria that have been introduced to define drug addiction, and these are likely to be helpful to clinicians to recognize opioid addiction. Also, Cheatle and Barker[2] provide some useful recommendations for initial evaluation and risk assessment of opioid therapy in chronic pain patients.

Some opiate-related drugs are prescribed for short-term use to manage acute pain. A case in point is the frequent prescription by dental clinicians of codeine-related drugs, alone or in combination with non-opioids such as acetominophen, for alleviating postoperative orofacial pain. But Cheatle and Barker[2] also point out that although opioids can be effective in the short term for treating chronic pain, their efficacy and safety have been questioned when prescribed long term (> 3 months). Also, being a complex, multidimensional experience often associated with comorbidities, chronic pain ideally should be managed by an interdisciplinary approach. However, Cheatle and Barker comment that it is most frequently dealt with by primary care clinicians who have limited knowledge about chronic pain and its diagnosis and management as well as limited resources for the effective monitoring of treatment outcomes and of the possibility of abuse of opioids if they are prescribed.

Cheatle and Barker provide recommendations for managing chronic pain by opioid therapy, and several of these can be considered applicable for chronic orofacial pain. However, there has been only limited study of the opioid-prescribing practices of dentists,[3,4] and there seems great variability between dentists—and between dentists in different countries—in their use of opioids for the management of chronic orofacial pain. It is also unclear how well they screen patients for risk of addiction, monitor their progress, or consult with other health professionals (eg, physicians, pharmacists, pain specialists) in the management of these patients. More research in these areas is needed to determine prescribing practices and to ensure guidelines are in place that address the appropriate prescribing practices and management paradigms for dentists, and other clinicians, to treat chronic orofacial pain patients with opioids.



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References

1. Ballantyne JC, Stannard C. New addiction criteria: Diagnostic challenges persist in treating pain with opioids. IASP Pain Clinical Updates 2013;21:1–7.
2. Cheatle MD, Barker C. Improving opioid prescription practices and reducing patient risk in the primary care setting. J Pain Res 2014;7:301–311.
3. Borden J, Edwards JE, McQuay HJ, Wiffer PJ, Moore RA. Relative efficacy of oral analgesics after third molar extraction. Br Dent J 2004;197:407–411.
4. Denisco RC, Kenna GA, O'Neil MG, et al. Prevention of prescription opioid abuse: The role of the dentist. J Am Dent Assoc 2011;142:800–810.