

Interpretation of “Aberrant” Drug-Related Behaviors

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ABSTRACT

Diagnosis of opioid addiction in chronic pain sufferers is often triggered by occurrence of what have been called aberrant drug-related behaviors. Ambiguities inherent in this approach affect patient care adversely. Rather than consistently signifying abuse or addiction, these behaviors are often motivated by undertreated pain. Appropriate clinical responses are suggested here, as well as a diagnostic approach prioritizing recognition of undertreated pain.

Introduction

Use of opioid analgesics in treatment of chronic pain has recently gained acceptance as a concept, but its effective implementation is often thwarted by lingering, unwarranted concerns about addiction. The accuracy of the use of certain behaviors as a test for diagnosing addiction hasn't been validated, and won't be, because they consist merely of a series of anecdotal observations concerning a diverse group of individuals who, for a variety of reasons, attempt to obtain opioids from medical sources. Uncritical acceptance of these behaviors as diagnostic of opioid abuse casts the net too wide, ensnaring in the process pain victims motivated to engage in these behaviors only by the desire to live their lives more fully.

In order to understand why these supposedly aberrant drug-related behaviors are commonly mistaken as indicators of addiction, it is necessary to consider the social context in which this approach is implemented. The ongoing “War on Drugs” sponsors an atmosphere of fear and panic that permeates the discussion of opioids. In this environment, pain sufferers are readily stigmatized as opioid addicted, although they usually are not, regardless of the legitimacy of their need for treatment. Physicians, eager not to overlook any behavior that could later be pointed to as evidence of their failure to recognize opioid addiction often rush to judgment, to their patients' detriment.

Pseudoaddiction

The term pseudoaddiction was coined in 1989 to describe chronic pain victims mistakenly diagnosed as suffering from opioid addiction after they were driven, by undertreated pain, to display certain drug-related behaviors.¹ Simply stated, pseudoaddiction is a misdiagnosis that results from undertreatment of chronic pain. When this diagnosis is made, the medical system has erred. Recognition that patients are frequently harmed by misdiagnosis of addiction should prompt an aggressive search

for undertreatment of pain. Unfortunately, this usually does not happen. Instead, when a patient displays certain behaviors, he is typically threatened with termination of his treatment, rather than questioned about its effectiveness.

Incidence of Opioid Addiction

Over the past 25 years a body of scientific research has developed that reveals that the prevalence of opioid addiction among patients treated for chronic pain is far lower than previously believed. A multitude of studies indicate that the rate of opioid addiction in populations of chronic pain sufferers is similar to the rate of opioid addiction within the general population, falling in the range of 1 to 2 percent or less.^{2,3} Other studies indicate that a history of previous substance abuse isn't predictive of treatment failure in chronic pain sufferers treated with opioids.^{1,3} An understanding of the neurobiology of opioids makes sense of the information these studies offer. A rational approach to categorizing and interpreting drug-related behaviors follows.

Drug-Related Behaviors Primarily Suggestive of Undertreated Pain

Undertreatment of chronic pain should be considered first on the list of differential diagnoses when considering the cause of worrisome drug-related behaviors. Some of these behaviors include:

- Borrowing another patient's drugs
- Obtaining prescription drugs from non-medical sources
- Unsanctioned dosage escalations
- Aggressive complaining about need for higher doses
- Drug hoarding during periods of reduced symptoms
- Requesting specific drugs
- Acquisition of similar drugs from medical sources

Drug-Related Behaviors Possibly Suggestive of Undertreated Pain

When these behaviors occur, undertreated pain should still be suspected first, but these behaviors are more serious than the first set above and may indicate other problems, occurring either by themselves or in addition to undertreated pain:

- Prescription forgery
- Stealing another patient's drugs
- Recurrent prescription losses

If these behaviors do indicate a substance abuse problem, this should be recognized. It is important to determine whether the abused substance is opioids or something else. Often this doesn't occur because of a socially ordained predisposition on the part of

physicians to automatically attribute the drug-related behaviors to opioid abuse. However, this is not a rational assumption because other substance-abuse problems have a much higher prevalence in society than opioid abuse. Correctly diagnosing substance abuse when it is present is important because a mistaken diagnosis of opioid addiction when another substance is actually to blame may result in the patient being denied pain treatment as well as treatment for the real substance-abuse problem.

Behaviors Suggestive of Opioid Addiction

The occurrence of the first two behaviors listed below leaves little doubt that the patient displaying them is engaged in abuse of opioids, but the occurrence of these behaviors does not preclude the existence of a true pain problem. The third item, sale of prescribed drugs, is the most flagrant form of diversion. This may indicate addiction to opioids or the abuse of some other substance, or it may simply reflect a profit motive. The problematic behaviors are:

- Injection of substances prescribed for oral use
- Concurrent use of related illegal drugs
- Selling prescription drugs

Implications for Pain Management

When the aberrant drug-related behaviors approach to diagnosis of opioid addiction originated, it was the only tool available to the discipline of pain management with which to address the potential problem of opioid abuse in pain sufferers treated with these substances. The problems that resulted from use of this approach were not anticipated, but probably should have been. Whenever medical interventions are based on assumptions rather than on science, unforeseen and often adverse consequences are almost guaranteed.

By observing behavior alone, it is impossible to distinguish between undertreated pain sufferers and people exhibiting suspect behaviors for other reasons, such as substance abuse or financial gain. This uncertainty invalidates the conclusions of studies relying on purportedly aberrant drug-related behaviors as indicative of opioid abuse, which have reported rates as high as 34 percent^{1 3} and 45 percent^{1 5} in populations of chronic pain sufferers. Estimated opioid abuse rates are wildly inflated in these studies by the presence of victims of undertreatment of pain, as well as by the inclusion of patients in whom the behaviors stem from the abuse of substances other than opioids.

Undertreated pain predictably triggers suspect drug-related behaviors, which include unsanctioned dosage escalation. Countless pain victims have been accused of drug addiction, and their treatment terminated, simply because they were bold or naive enough to admit that they used up their medication sooner than they were instructed. As a result, patients who have suffered from chronic pain for any extended period of time have generally learned from bitter experience not to reveal to their doctor that they have engaged in unsanctioned dosage escalations, although it is often necessary for them to do so in order to function. Patients often continue to engage in this behavior surreptitiously after learning

that revealing it will be held against them. This has serious implications for the quality of the patient-physician relationship.

Legitimate patients are frequently suspected of drug addiction when they exhibit problematic behaviors, such as requesting treatment with a specific opioid, which they already know, from experience, will help them. This eliminates honest communication in the patient-physician relationship and substitutes a don't-ask/don't-tell charade. It is a tragedy when such behaviors come to the attention of a physician who mistakenly diagnoses addiction, and ends treatment as a result.

The academically recommended response to possibly aberrant drug-related behaviors is imposition of a structured program of opioid prescribing.¹ "This is based on the concern that patients who display these behaviors are at risk for abusing their medications, and consequently must be tightly controlled in order to prevent their descent into addiction. This response itself needs to be restructured, because undertreatment of pain is common, and the risk of opioid addiction low. When the described drug-related behaviors show up, doctors should think first about the "horses" of undertreatment, not the "zebras" of addiction.

The current definition of addiction is based on function. Central to this definition is that addicts engage in continued substance abuse, *in spite of harm*.^{1 7} In contrast, pain sufferers treated with opioids function better, and their lives improve.^{1 8} This dichotomy, based on functioning, should marginalize the observation of certain drug-related behaviors as a diagnostic tool for addiction in pain sufferers, because it allows physicians to objectively discern whether a patient is benefiting from treatment with opioids, or may be engaging in substance abuse with detrimental consequences.

A paradigm shift must occur before drug-related behaviors can be interpreted correctly. The physician finding these behaviors in a clinical setting, before making any assumptions about substance abuse or addiction, must first determine whether the principle of titration to optimal functioning has been correctly applied. In this manner, diagnosis of undertreated pain will be facilitated, as it should be. Substance abuse issues can then be considered in an appropriate secondary manner, if the suspect behaviors continue following effective titration.

Titration

Titration of medications to desired effect is a central principle in clinical practice. Treatment of chronic pain with opioids resembles the treatment of Type I diabetes with insulin, because in both disease states a deficiency of naturally occurring substances is corrected through the process of titration of medications.

Similarities between the conditions include the facts that patients suffering from diabetes and those suffering from chronic pain are monitoring their own symptoms; a sliding scale is used; and patients are instructed to self-adjust their dosages according to their fluctuating requirements.

The major difference between the treatments is that insulin is a potentially dangerous drug, whereas opioids are comparatively safe, when used by well-informed, opioid-tolerant, chronic pain sufferers. If the principle of titration is to be implemented in chronic pain treatment, review and clarification of titration issues is needed.

Opioid titration in the treatment of chronic pain has two endpoints.¹ If one or the other is not reached, the patient has not received a fair opportunity to experience titration's potential benefits. The endpoints are (1) optimal patient functioning or (2) intolerable side effects that preclude further titration. The second is more often a problem when using medications with relatively unfavorable side effect profiles, such as morphine or methadone.

Key Points of Titration

The concept of unsanctioned dosage escalation should be replaced with the principle of patient-controlled analgesia (PCA). Just as patients are educated about the use of rescue doses in the treatment of their pain, they should also be given limits within which to titrate opioids toward the goal of optimal functioning. This will eliminate the unfortunate practice of requiring patients to suffer from undertreated pain while waiting for their next appointment, when the possibility of an increment in titration may finally be discussed.

When treatment with one opioid fails to achieve therapeutic goals, a trial with a different opioid should be initiated, a concept recognized as rotation.² If the first medication has been of any benefit to the patient, it should be continued during the trial of the second. Otherwise, if the second agent proves ineffective, the patient is left with no pain relief. Patients perceive this as an unacceptable risk to their well-being, and understandably become fearful of suggesting any sort of change in their treatment regimens.

The fact that combination treatment with opioids is not widely accepted is a socially driven aberration from this otherwise generally accepted medical principle. If treatment were for hypertension rather than pain, and the first medication produced a less than optimal response, it would typically be continued within the therapeutic regimen while another agent was added.

Titration is, of necessity, a fluid and continuing process. As patients recover from long periods of debilitation, caused by years or even decades of undertreated chronic pain, gradually increasing activity levels provoke increasing pain levels along with a corresponding requirement for further titration. This phenomenon must not be considered abuse or addiction. The dosage curve in the treatment of severely debilitated patients recovering from long-term undertreated chronic pain is often bell-shaped, because as the patient achieves full physical activity, the nervous system can begin to recover, and opioid dosages may be expected to diminish while gains in functioning persist.

Pain victims who have not experienced effective titration of their medications often remain unaware of the qualitatively different realm of functioning in which they would exist if this were accomplished. This creates a mandate to apply titration aggressively. In the future, failure to apply the principle of titration will probably be perceived as a violation of the standard of care.²

Physiology of Pain and Opioids

Many fear that an aggressive implementation of the principle of titration, in combination with the principle of PCA, will result in

dangerous programs of self-medication. These misgivings are based on superstitions about opioids, and are contradicted by science.

Basic physiology effectively precludes occurrence of opioid addiction in patients treated with these substances because chronic pain compels its victims to take their medications regularly, and the result is the development of tolerance. Tolerance dictates that when constant blood levels of opioids are maintained, the reward pathways in the brain aren't activated by these medications. This phenomenon also dictates that in order to get high on opioids, the abuser must space his doses far enough apart in order to partially lose his tolerance, so that he can achieve a psychological reward from the next dose. When pain sufferers have sufficient access to opioids, they use them continuously. Abusers who desire the psychological effects partake sporadically.

Physiology of Opioid Tolerance and Reward

Beyond a relatively low dosage ceiling, tolerance to the reward-producing effects of opioids is complete. The existence of this ceiling effect has been established by experience in methadone maintenance programs.² This physiologically determined reality should negate lingering concerns that chronic pain sufferers are likely to abuse their medications, or are even capable of doing so.

Physiology of Respiratory Tolerance

Evidence indicates that a dosage ceiling exists for the phenomenon of respiratory depression as well. This hypothesis is supported by a study in which tolerant subjects were administered opioids in amounts 600 to 900 percent larger than their usual dosages. No respiratory depression or changes in level of consciousness were noted.² This consensus statement from major pain organizations supports the existence of a ceiling dosage for respiratory tolerance:

It is now accepted by practitioners of the specialty of pain medicine that respiratory depression induced by opioids tends to be a short-lived phenomenon, generally occurs only in the opioid-naive patient, and is antagonized by pain.^{2,4}

The knowledge that psychological reward and respiratory depression do not ordinarily occur in opioid-tolerant subjects assures that the principle of titration can be safely applied, along with the principle of PCA, in the treatment of this population.

Legal Implications of Misinterpretation of Drug-Related Behaviors

Beyond harm to patients' health and to the patient-physician relationship, misinterpretation of drug-related behaviors has resulted in unintended legal consequences. The criminal justice system has incorporated these behaviors into a system of "red flags"—as law enforcement calls them—used to target physicians for criminal prosecution. These red flags are routinely offered in the courtroom as evidence of criminal intent on the part of doctors accused of drug trafficking.^{2,5}

Conclusions

Continuing misinterpretation of behaviors resulting from undertreatment of pain, despite long-term awareness of the pseudoaddiction phenomenon, can reasonably be characterized as aberrant drug-related behavior on the part of the medical profession. Misunderstandings about the significance of drug-related behaviors disrupt the therapeutic relationship between patient and physician, contribute to the widespread undertreatment of chronic pain, and place legitimate practitioners at risk for unwarranted administrative and criminal prosecutions. It is therefore important not to jump to mistaken conclusions when potentially aberrant drug-related behaviors are observed.

The solution to this problem is recognition of the problem of undertreatment of pain, which places it at the top of the differential diagnosis, when suspect drug-related behaviors are observed. The diagnosis of opioid addiction should be based on observation of deteriorating function, which can be directly attributed to opioid abuse, rather than inferred from an anecdotal set of behavioral criteria derived from medical folklore.

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Statolatry

“Today the fashionable philosophy of statolatry has obfuscated the issue. The political conflicts are no longer seen as struggles between groups of men. They are considered a war between two principles. The good and the bad. The good is embodied in the great god State, the materialization of the eternal idea of morality, and the bad is the ‘rugged individualism’ of selfish men. In this antagonism the State is always right and the individual always wrong. The State is the representative of the commonweal, of justice, civilization, and superior wisdom. The individual is a poor wretch, a vicious fool.”

Bureaucracy, by Ludwig Von Mises
1944, Yale Univ. Press

Statist's View of “Fair” Bureaucracy

“It is not seemly for a subject to apply the yardstick of his wretched intellect to the acts of the Chief of the State and to arrogate to himself, in haughty insolence, a public judgement about their fairness.”

Prime Minister Von Rochow’s response to a Prussian Citizen’s
Petition – 01/15/1838