Chronic Pain (Somatic Symptom Disorder with Predominant Pain)

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The consultation-liaison psychiatrist is consulted fairly often for problems related to pain. This may vary substantially, however, depending on the presence of pain specialists from other disciplines, typically anesthesiology, and the consultation-liaison psychiatrist's interest in and comfort with pain problems. If the consultation-liaison psychiatrist accept these consults, however, and is considered knowledgeable, requests for help will be frequent.

22.1 Case Examples

The following are examples of typical pain-related consult requests:

A 42-year-old woman is 6 days postoperative from back surgery. She insists she is in excruciating pain, but the surgeon thinks that she should be having minimal pain by now. This case may involve more than simple undertreatment of acute pain. Since there has been preoperative back pain, possibly for some time, she may have been using opioid pain medicationss and become tolerant. If so, more than the usual acute pain medications may be required. Even more importantly, it may become difficult to reduce the opioid dose even if surgery is successful. Consideration might be given to switching to a long-acting opioid, such as methadone, or extended-release morphine, and systematically tapering the dose, often as an outpatient.

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A 68-year-old woman with cancer pain is fearful of taking pain medications, but she appears to be very anxious and uncomfortable. This case may well involve more than just encouraging her to take her pain medications. The meaning of the cancer in the context of her life should be explored. She may need to grieve the loss of her health. Psychological support should also help her to consider the options for pain control.

A 50-year-old homeless man with MRSA (Methicillin-resistant Staphyloccus aureus) cellulitis, constantly demands pain medications, but sleeps most of the day. The assessment should consider the likelihood that subjective desire for pain medications will not be consistent with objective indicators of pain, such as the nature of the medical condition, sleep, appetite, and activity levels. There may be an addiction problem associated with this man's diminished ability to care for himself.

A 70-year-old man, whose pain is treated with fentanyl and lorazepam, becomes delirious. Delirium can be a complication of pain medication, especially if the dose is too high, or there is a preexisting cognitive disturbance. The geriatric population is particularly vulnerable. Lorazepam is especially likely to cause cognitive disturbances (O'Neill et al. 2004).

A 48-year-old woman claims that she suffers from fibromyalgia. She has nonphysiological findings on exams. Patients may carry a diagnosis in which the signs and symptoms are suspect with regard to reliability and validity. Common diagnoses in which this is the case include fibromyalgia, myofasciitis, reflex sympathetic dystrophy, and temperomandibular joint syndrome. Consults are often appropriately requested to assess for psychological issues.

Some pain consults are addiction related; a 36-year-old woman heroin addict has an acute medical condition causing pain. The referring physician wonders whether the pain should be treated. It is not helpful to "punish" an addict by not treating pain. Because she is likely tolerant to opioids, she will need higher than usual doses of opioid pain medications. As the acute pain abates, however, opioid doses must be carefully reduced so that she is not discharged with a bigger habit than she had on admission. Of course, the hospitalization presents an opportunity to motivate her toward treatment.

A 45-year-old man in a methadone maintenance program is hospitalized with acute pain. Physicians are often uncertain how to manage such patients, and psychiatric consultation is requested. There are generally two options. The easiest is to maintain the patient on his daily dose of methadone, and add short-acting opioids, such as morphine, as needed for control of the acute pain. Doses will need to be higher than usual because of tolerance. The other option is to raise the methadone dose sufficiently to produce analgesia. This requires that the consultant be familiar and comfortable with methadone dosing. It is important that permission be obtained from the patient to contact the methadone program so the patient's maintenance dose can be verified. If the patient has lied, and is not tolerant to the dose of methadone claimed, serious respiratory depression to the point of death can occur.

A 40-year-old man has used daily opioids for back and leg pain for 8 years, and doses have reached very high levels. Patients taking megadoses of opioids often have medical admissions to rule out various medical conditions when they may be having complications from their opioid use. The complications can include abdominal pain from severe constipation, or even bowel obstruction, withdrawal symptoms from using up their pain pills too quickly, and altered mental status. The problem must be recognized to devise a treatment plan, which necessarily requires coordination with the prescribing physicians.

22.2 Comorbidities

Mental disorders are common in chronic pain populations (Streltzer 2011) With regard to acute pain, mental disorders, including substance use disorders, and disorders involving impulsivity may render the individual prone to accidents and other trauma.

The consulation-liaison psychiatrist who is asked to do a consult on a pain patient can

assess four categories of potential psychiatric comorbidity: (1) psychiatric disorders that happen to be present in addition to a pain state without any etiological connection between the two; (2) psychiatric disorders that are, at least in part, presumed to be caused by the pain state; (3) psychiatric disorders that contribute to the experience of pain; and (4) psychiatric disorders that are part and parcel of the pain state, usually a somatic symptom disorder. Each of these four categories will be discussed in turn.

Psychiatric disorders that happen to be present in addition to a pain state may or may not be significant influence on the pain state. The psychiatric condition may influence communication style, which can affect the reporting of pain, making it more difficult to assess. This is particularly apparent in disorders affecting thought and communication, such as schizophrenia or delirium.. The mental disorder can also alter the perception of pain and influence the affective response to pain. A flat affect and loose or illogical associations of thought make evaluation of the subjective pain experience quite difficult, particularly if a schizophrenic disorder is not recognized.

Case example: Schizophrenia: An acutely paranoid woman beginning hemodialysis for end-stage renal disease complained of pain and discomfort when needles were inserted to begin dialysis. She concluded that the dialysis machine was the devil, and the nursing staff were the devil's assistants. After treatment with antipsychotic medication, this delusion disappeared she accepted thrice weekly dialysis treatments.

Comorbid psychiatric conditions may complicate the doctor-patient relationship and affect compliance with and response to treatment. The patient with comorbid substance abuse may continually seek narcotic analgesics, feigning or exaggerating pain, making the actual pain state very difficult to assess. From a clinical perspective, many consider substance abuse or "addiction" to be the major comorbid condition of concern.

Psychiatric disorders that are, at least in part, presumed to be caused by the pain state can include depressive, anxiety, and adjustment disorders. These emotional reactions are determined by the context of the pain state, its meaning, and the patient's constitutional tendency to worry, be fearful, be discouraged, be resilient, and so forth. When chronic pain is poorly responsive to treatment, or associated with substantial disability, a mood or anxiety disorder is often present. Even though the origin or the persistence of a chronic pain state may not have a clear pathophysiology, some clinicians automatically accept the pain complaints at face value and view most psychiatric issues as responses to the pain state rather than being involved in its generation. The induction of a psychiatric condition in response to the pain state has been termed the "diathesis-stress model" (Dersh et al. 2001). This model posits that there is a preexisting vulnerability that precipitates a psychiatric disorder under the stress of a painful condition.

Psychiatric disorders that contribute to the experience of pain are most often thought to be anxiety or depression. An anxious person, say, one who has experienced severe life stresses, might react with increased pain from a painful physical condition. A patient in the midst of a depression also might dwell on his or her pain excessively. In terms of personality factors, there is a great deal of interest in the so-called "catastrophizing" cognitive style, which makes the pain state more disabling and less responsive to treatment (Wolff et al. 2008).

Psychiatric disorders in which the pain state is part of the disorder include the somatic symptom disorders, using DSM-5 terminology. In these conditions the patient is morbidly preoccupied with pain. In the not uncommon situation where pain cannot be adequately explained on medical grounds, and nonphysiological and inconsistent findings are present on physical examination, the patient usually qualified for a DSM IV diagnosis of a somatoform pain disorder, but may not qualify for a DSM-5 diagnosis if hypochondriacal concerns are not present. One study comparing DSM IV and DSM-5 criteria, however, found a high degree of overlap (Boscarino et al. 2011).

Case example: Somatic symptom disorder with persistent pain: A 42-year-old married woman immigrated to the United States, and was only able to obtain employment as a laundry

worker. One day she bumped her head unloading a large washing machine. She initially complained of headaches, and over a period of a few weeks she became preoccupied with complaints of neck pain, back pain, shoulder pain, and dizziness. She was unable to work. Medical evaluations and imaging tests were unrevealing of significant pathology to explain the various pains. Physical therapy caused increased pain complaints.

This woman had multiple sites of pain following a trivial injury. Her condition was intractable to all treatment attempts. She was focused on verifying her disability rather than looking for ways to get better. Her family took over all her responsibilities at home, and she sought medical disability from work.

A national comorbidity study, sampling over 9,000 subjects in 2001–2002, found that 19 % reported a 1-year prevalence of chronic spinal (i.e., neck and back) pain. Of these, 35 % had a comorbid mental disorder, mostly depression and anxiety disorders. In addition, almost 69 % had another chronic pain condition, suggesting a high percentage of somatoform pain disorder (Von Korff et al. 2005). The authors concluded that comorbidity contributes greatly to societal burdens of chronic spinal pain. Given the likelihood that many of the chronic pain subjects had multisomatoform pain, it is probable that a significant number of these had somatoform disorders not diagnosable by the study methodology.

Most population studies have similar findings and limitations, demonstrating a high prevalence of anxiety and depressive disorders in pain patients, but not evaluating for somatoform disorders, and not evaluating whether prescribed drugs are part of a substance use disorder. Personality disorders are not often assessed, but when they are the prevalence is usually high.

While most population studies have been crosssectional, a prospective study, surveying over 6,600 respondents in 1998 and again in 2001 looked not at the association of mental disorders with pain, but at the association of mental disorders with the initiation of opioid treatment for pain. It found that the presence of a mental disorder (major depression, dysthymia, generalized anxiety disorder, or panic disorder) greatly increased the likelihood of initiation into regular use of prescribed opioids for chronic pain. This was also true to a lesser extent for the presence of substance abuse in 1998, but not alcohol abuse. This period of time in the United States is associated with the encouragement and rapid rise of opioid prescribing for chronic pain. The authors of the study suggested that practitioners might have been attempting to treat relatively poorly differentiated state of mental and physical pain (Sullivan et al. 2006).

Chronic pain studies often do not control for opioid therapy, which can be a confounder. Opioids may produce their own mental effects, and these can be subtle or intermittent. In addition, patients may worry about their ability to function, which may be compromised by chronic opioids. There is substantial evidence that opioids given chronically contribute to disability, although some authors assert (with little evidence) that unmanaged pain (meaning without opioids) would be more disabling.

In a study of veterans receiving opioids for chronic back pain compared to those only receiving NSAIDS but with identical pain ratings, depression, personality disorders, and history of substance abuse were more common in the veterans receiving opioids. Comparing the opioid-treated group to the nonopioid-treated group. Depression was found in 65 % versus 20 %, substance use disorder was present in 43 % versus 13 %, and a personality disorder was found in 14 % versus 1 %, all significant at $p < .001$. There was no difference in the two groups in anxiety disorders or psychosis. In this sample, the average daily morphine equivalent dose was only 46 mg, a low dose in today's clinical population (Breckenridge and Clark 2003). It is possible that the comorbidity in opioid-using chronic pain patients would be even greater in a population using larger doses.

In conclusion, a great deal of psychiatric comorbidity is present in chronic pain states, and particularly so in those being prescribed opioids. Whether opioid prescription causes psychiatric disorders or is a response to them cannot be definitely determined by these mostly crosssectional studies.

22.3 Consultation with the Opioid-Dependent Chronic Pain Patient

In the past, consultations often involved undertreatment of acute pain (Marks and Sachar 1973; Streltzer and Wade 1981). For at least 20 years, however, most pain-related consultation requests involved chronic pain patients, particularly those using opioids (Streltzer 1994). This is because acute pain is more effectively treated, often allowing the patient to determine the dose of pain medication through patient-controlled analgesia, resulting in less need for psychiatric consults involving acute pain. This more liberal prescribing policy has carried over to the treatment of chronic pain in some circles, but because of substantial differences in the body's physiological response to chronic opioid intake versus short-term intake, chronic pain patients are now much more prone to medical and psychological complications.

The treatment of chronic pain has changed significantly in the United States in recent years. It is far more complex than it used to be, because the consultation-liaison psychiatrist is now more likely to see pain patients being maintained on opioids. This was relatively rare in 1980 and has now become commonplace (von Korff and Deyo 2004). In the 1980s, literature began to appear that suggested that some chronic benign pain patients were benefitted by treatment with long-term opioids (Portenoy and Foley 1986). Anecdotal cases were minimally described, and improvement in functioning was generally not claimed. Patients who previously had been described as "pain-prone" (Engel 1959) or hypochondriacal, with the treatment being primarily psychological, were now being prescribed opioids with increasing frequency and, in the 1990's, through the present, ever higher doses (Martin et al. 2008).

In recent years, a trend opposing this liberal prescribing of opioids has been gaining momentum. The explosion of mortality and morbidity associated with opioid prescribing has steadily risen (Paulozzi and Ryan 2006). In reaction to this, both the scientific literature and the lay press are increasingly describing the lack of safety and effectivenss of chronic opioid therapy (Katz 2010; Juurlink et al. 2013). Organizations concerned with the treatment of chronic pain are issuing treatment guidelines incresingly restrictive of chronic opioid therapy. The American Pain Society and the American Academy of Pain Management issued guidelines in a joint statement in 1997 that actively promoted chronic opioid therapy for chronic pain (The American Academy of Pain Medicine 1997). In a joint publication in 2009, however, they retreat a great deal from their enthusiasm for such a treatment approach (Chou et al. 2009) They concluded that evidence of efficacy was weak, as was evidence for almost all the previously suggested procedures to insure safety based on "expert opinion."

Editorials are now frequently seen in prominent journals calling attention to problems associated with excessive prescription of opioid pain medications (Sullivan et al 2010; Von Korff 2010; Von Korff et al. 2011). The solution to this over prescription has thus far eluded the medical community, however. One school of thought has promoted the use of risk management strategies to solve the problem. Recommendations involve screening for past substance abuse behaviors and only prescribing opioids for chronic pain when alternative treatment methods have been tried first. This school of thought recommends close monitoring of the patient once the decision to prescribe opioids on a long-term basis has been made. Treatment contracts are often recommended. These appear to sometimes make the prescribing physician more comfortable, but evidence is lacking for their effectiveness as an adjunct to managing pain. The use of treatment contracts and frequent urine drug screens makes this type of management similar to what is used in drug treatment programs. Most prescribing practitioners do not have the training, resources, or experience to provide such management however. While such management is legal under the guise of pain management, this may often be more accurately described as office-based treatment of opioid dependence. Office-based treatment of opioid dependence with controlled

substances is legally allowed only to practitioners who have obtained a special license to use buprenorphine for such treatment.

With regard to risk management, it appears that the major risk factor in the development of opioid dependence (or an opioid use disorder) is *exposure*. Many patients that are seen in consultation have no significant past history of substance abuse but have become dependent on opioids following a medical and surgical condition that was treated overzealously and overlong with opioids. This dependence is usually associated with adverse consequences including anxiety about taking the drug frequently enough to avoid withdrawal discomfort, irritabiliy, sleep disturbance, and impairment in social and occupational activities.

In conjunction with this dramatic increase of opioid prescription, emergency room data indicates that problems with prescription narcotic drugs have mushroomed in recent years (The DAWN Report 2004) . Evidence is emerging that death rates associated with unintentional overdoses of prescription pain medications are rapidly increasing also (MMWR 2005).

A typical case involves a middle-aged man or woman with chronic musculoskeletal pain who had been prescribed opioid drugs, such as codeine, hydrocodone, or oxycodone, and whose dose escalated over time from a few tablets per day to higher and higher doses, eventually reaching a relatively stable plateau. Such a patient is likely to receive a prescription for a fixed daily dose of an opioid, usually with the availability of additional "breakthrough" opioids, as needed for pain not controlled by the fixed dose. The patient will report that this additional medication is taken only as needed, but if the consultation-liaison psychiatrist persists in determining how often it is actually taken, he or she will discover that it is roughly the same amount each day, and the amount prescribed monthly remains the same from month to month.

The pain complaints tend to be continuous all day long, and they often have spread beyond their original location and increased in subjective intensity. The patient reports that narcotic pain medications are the only effective method of temporary relief, as other modalities such as physical therapy do not affect the overall course of the chronic pain.

The patient's history will include hospitalizations for additional testing, complications of the medication regimen, or a concurrent condition, and during these admissions a psychiatric consult may be requested. In some settings, the patient will be referred for consultation as an outpatient. The referring physician suspects psychological issues maintaining the pain, or worries about addiction, or is simply at a loss as to how to help the patient and hopes the consultation-liaison psychiatrist will come up with something useful.

To provide effective consultation, the consultation-liaison psychiatrist needs to know what condition might be causing pain, and to what degree objective findings are present, not just the patient's subjective report. Also, the consultation-liaison psychiatrist should know the limitations of common controversial pain diagnoses that are likely to have psychological factors involved. Such diagnoses include fibromyalgia, reflex sympathetic dystrophy (also known as complex regional pain syndrome), temperomandibular joint syndrome, and others. In addition, there are diagnoses that are not controversial, but can be questionable as far as the degree of pain being caused, or even the relationship to the pain. Examples include carpal tunnel syndrome, degenerative disc disease, and chronic migraine headaches.

22.4 Evidence for the Loss of Analgesic Efficacy with Chronic Opioid Intake

The consultant should also know the evidence of the lack of analgesic efficacy of chronic opioid intake on pain. The evidence, cited below, is compelling at the cellular, physiolgical, experimental, epidemiological, and clinical levels.

Nerve cells involved in pain pathways adapt to chronic opioid intake through a number of chemical mechanisms (White 2004). These processes seem to overlap in a redundant fashion. For example, administration of chronic opioids suppresses the function of intracellular cyclic AMP. This leads to an adaptive response, an

upregulation of adenylyl cyclase and the system responsible for synthesizing cyclic AMP. This upregulation of the cyclic AMP system leads to increase in cyclic AMP response element binding protein, an intracellular peptide that stimulates RNA to make dynorphin in those cells capable of responding, including the pain transmitting cells of the dorsal horn of the spinal cord (Nestler 2001). Dynorphin is associated with an abnormal pain sensitivity or hyperalgesia (Vanderah et al. 2000). It is present under conditions of painful stimulation, is associated with pain behaviors when is injected into animals, and it is increased by the chronic administration of opioids in a manner similar to that induced by painful stimulation.

Another chemical mechanism has to do with the upregulation of NK1 receptors and substance P (King, et al. 2005). These are involved in transmission of pain impulses and are also induced by chronic opioid administration. An increasing number of intracellular compounds are found to be associated with pain induced by chronic opioids, including cholecystokinin (Xie et al. 2005), and orphanin/FQ (Stinus et al. 1995). Thus, cellular responses to stimulation by long-term exogenous opioids are multiple and overlapping, and they counteract, and ultimately reverse the acute analgesic effects. Inflammatory cytokines have recently been discovered to be elicited in the central nervous system under the influence of chronic opioids, also causing hyperalgesia, and diminishing long-term immune responsiveness (Hutchinson et al. 2011).

Animal studies consistently show a vigorous acute analgesic response to morphine in the opioid-naive animal. In contrast, pretreatment with morphine results in a much less robust response to morphine treatment of a painful stimulus. Furthermore, after a period of time, morphine administration causes increased pain sensitivity, the opposite of acutely administered morphine (Ibuki et al. 1997).

The evidence is convincing that the same phenomena occur in humans. Several studies have confirmed that methadone maintenance patients are more sensitive to experimental pain than controls who do not take daily opioids (Jamison et al. 2000; Doverty et al. 2001) Furthermore, Rosenblum, et al. (2003), found that methadone maintenance patients reported much more chronic severe pain than a control group of nonopioid-using drug abusers in treatment programs. In addition, the longer one had been on methadone maintenance the more chronic pain was reported.

The belief that chronic opioids maintain their analgesic effectiveness is belied by the fact that methadone maintenance patients on very high doses of the powerful analgesic are not protected from pain at all. Despite being maintained on doses of this powerful analgesic that would be lethal in other patients, if they need surgery, or have an acute painful condition, they do not need less pain medication, they need more than opioid-naive individuals to effectively combat acute pain (Compton, et al. 2000). Studies of nonsubstance abusing chronic pain patients reveal the same enhanced pain sensitivity to chronic opioid therapy (Hay et al. 2009).

There is also evidence that patients with somatic symptom disorders are more likely to become dependent on daily opioids. Patients with serious injuries rarely take daily opioids in the long term. Patients with a somatoform pain disorder are more likely to have pain that spreads to new sites from the original injury, to have more diagnostic tests, to have nonphysiological findings on exam, and to have received more treatments, such as physical therapy, than those with more serious injuries (Streltzer, et al. 2000) Thus, when a consultation is called for a chronic pain patient, careful consideration must be given to the possibility of a somatic symptom disorder being present.

As summed up by Ballantyne and Mao (2003), the use of chronic high-dose opioids for the management of pain is neither safe nor effective. It is likely to contribute to morbidity and mortality in a vicious cycle of pain leading to prescription of higher doses of opioid analgesics, which will induce greater pain sensitivity. Doses that appear to be stable over months, or even a few years, are likely to escalate when viewed from a longer-term perspective, unless something happens to disrupt this process (Streltzer and Johansen 2006).

Disruptions tend to occur because of medical complications, or loss of the prescribing doctor.

Treatment of opioid dependence for chronic pain can be effective. We followed 100 consecutive patients referred to a pain consultation clinic from a primary care clinic. In the majority of cases, daily opioid dependence was present. Almost all of these cases were detoxified from opioids. Nonopioids were substituted for pain management and, given in the context of psychological support, resulted in a beneficial outcomes. This mirrors studies from the 1970s when multidisciplinary pain clinics were first being formed (Newman et al. 1978).

When chronic pain is associated with objective findings explaining the pain, it can most often be treated with nonopioid analgesics and various coping strategies can be effective. In some cases chronic pain patients who are not dependent on opioids are somatizers, and may have a somatoform disorder, or hypochondriacal traits, and can be treated according to the principles for treating somatoform disorders. Opioids are not a good treatment for psychological issues, although the patient's energy may be displaced to focus on opioid intake, and the other psychological issues are masked.

22.5 Principles of the Consultation Intervention

The referring physician usually feels a responsibility for the overall well-being of the patient. In the inpatient setting, however, there can be pressure to make the difficult, chronic pain patient content by whatever means possible, leaving long-term goals and limit setting for outpatient care after discharge. This approach can make such outpatient management all the more unlikely to occur. The consultation-liaison psychiatrist will naturally focus on the immediate problem when requested, but is well-advised not to forget the long-term needs of the chronic pain patient.

Case example: A 70-year-old woman with a history of multiple hospitalizations for chronic pain and COPD was well-known by nursing staff for constantly demanding more pain medications, whatever her comfort level appeared to be. The hospital has a pain management team that had been consulted and recommended a higher dose of long-acting opioids plus "breakthrough" short-acting opioids. This had been done in prior admissions, with patient satisfaction. After discharge, however, the patient would soon be readmitted with similar complaints. Psychiatric consultation was called because the patient intermittently would not make sense in her verbalizations. It became clear that opioid intake was influencing the mental status, and that the patient was consuming opioids in a manner unrelated to objective findings. The primary physician agreed to let the psychiatric consultant manage the pain medications. As the patient was detoxified, she became lucid, and her complaints were well-managed by nonopioid analgesics and daily visits. At discharge, the nurses report that she had never looked so good.

Case example: A 36-year-old man was hospitalized because of an excruciating headache unrelieved by extended-release oxycodone, 240 mg, three to four times per day. The headache partially improved on intravenous morphine, given via a patient-controlled analgesia pump, with the total dose averaging an astonishing 95 mg/h. At that dose he could sleep and converse without apparent cognitive impairment. The referring physician had consulted various specialists in the past and tried many different treatments. He was at a loss at this point, and just wanted help. The patient gave a history of suffering migraine headaches since age 22. His sister and mother had similar headaches. Originally, his headaches had been only occasional, and well-controlled with medication. The headaches got progressively worse in severity, however, and by the time he was 29, he was using opioid analgesics daily. His opioid doses gradually rose, with temporary benefit whenever he raised the dose, but then the headaches would become worse again. He had been hospitalized with increasing frequency because of intractable pain, or complications from high-dose opioids. He was now on his highest dose yet, and his internist was at a loss where to go from here.

The consultation-liaison psychiatrist recognized that the patient's headaches were probably

due to a combination of rebound headaches associated with opioids and the enhanced pain sensitivity produced by them. He discussed this assessment with the patient, who was simultaneously intrigued by the potential of not living with constant pain yet fearful of changing his habits, having several times experienced severe withdrawal discomfort and pain. He stated he would think about reducing his pain medications, but since he was beginning to feel a little better he wanted to go back to his oxycodone, but at a higher dose.

The consultant pointed out that the patient had been through this many times before, and the recommendation was going to have to be what the consultant thought was best. Moreover, he was sure that the referring physician would agree with the recommendation, since he had discussed it with him already. The consultant assured the patient that he would visit him every day and monitor his comfort closely.

The patient-controlled morphine was changed to a fixed dose of intravenous morphine, initially at 70 mg per hour. Each day this was reduced by 10 mg, until it reached 40 mg per hour, when it was then reduced by 5 mg per day. The patient was assured that should he feel severe pain coming on, he could ask for something. He wanted to know what, and was told it would be haloperidol, a major tranquilizer with analgesic effects that would not interfere with his other medications or the changes in narcotic dose. It would be given intramucularly for more rapid effect. If it did not help, it would be changed.

The patient asked for the injection several times the next day, and once or twice each day for the remainder of his hospitalization. The dose was 0.5 mg, low enough to minimize the possibility of side effects. More importantly, he was visited daily. The psychiatric consultant carefully listened to his concerns. Minor adjustments were made to his treatment as a result, and the narcotic dose consistently came down. He was praised for how well he was doing, and after a few days, he would greet the consultant with a smile.

When his dose was down to 25 mg/ h, there was pressure to discharge him, since he looked so comfortable. He was then switched to oral methadone 15 mg three times a day for the first day, being reduced to 10 mg three times a day in 3 more days when he was discharged. He was then placed on an outpatient tapering schedule over 2 weeks, and was seen twice as an outpatient. He was put on an anticonvulsant by a neurology consultant for headache prophylaxis. Otherwise he was taking only acetaminophen and a rare haloperidol tablet. He gratefully stated that his life had been restored to him. Three months later he phoned the consultant, reported he was doing well, and talked about his sister who had migraine headaches also and was dependent on prescription narcotics.

This case example is consistent with the rapidly accumulating evidence that daily opioids, at least in high doses, enhances pain sensitivity in general, and clinically, dependency issues are a major problem. . It was necessary for the patient's primary physician to allow the detoxification. Perhaps most importantly, the patient had to see that the consultant had his best interests in mind, and would stick with him through the psychologically stressful change in habits.

The detoxification went surprisingly smoothly considering the huge dose of opioid to which the patient was tolerant. Reducing a continuous intravenous dose is not difficult in the hospital because the dose is constant without the fluctuations that occur with oral dosing or if the patient controls the dose.

22.5.1 Treatment

A treatment model (Streltzer 2001) for which there is evidence of effectiveness (Anooshian et al. 1999) proved successful in these patients (see Table 22.1).

Once the assessment has been made that opioid dependence is adversely influencing the patient's condition, the consultation-liaison psychiatrist will do well to undertake or guide treatment utilizing as many of the following steps as feasible.

Explanation of the role of opioids in maintaining chronic pain and enhancing pain sensitivity.

The patient should be told of the changes to the pain regimen and given a rationale for doing this. An appropriate message might be, "It is only

Table 22.1 Treatment of the opioid-dependent chronic pain patient

1. Explain how opioids contribute to chronic pain
2. Detoxification
3. Nonopioid pain management
4. Psychological support
5. Coordination of care
6. Simultaneous counseling about health behaviors (smoking, diet, exercise, attitude)

natural that you are seeking to relieve your pain. You have been unsuccessful, however, despite very high doses of pain medications. In fact, these medications (opioids) have contributed to your chronic painful condition. Your body needs to recover from the changes induced by the constant intake of opioids, and it is likely that you will become stronger and feel better as a result."

Despite the anxiety engendered by modifying habitual ways of medicating pain, this approach, when given confidently, often inspires hope. For many patients, this makes sense because they have suspected that the medication is a problem and they have become dependent upon it.

Other patients are convinced that they need opioids and cannot live without them. This is similar to the cigarette smoker who believes smoking is something he or she cannot stop, despite all the warnings about the health consequences. These patients will argue that opioids are not the problem but the solution. Such a patient may resist change, but still do well if the physician is supportive but strict in eliminating opioids. The physician does best by not focusing on addiction as an issue, but rather insisting that the best long-term solution for the pain is not the use of (high-dose) opioids that will enhance pain sensitivity.

22.5.1.1 Detoxification

Once the level of opioid dependence is estimated, the dose can be fixed and steadily reduced. Opioid substitution with methadone works particularly well. Methadone is a useful opioid with which to switch for detoxification, not just because of its excellent and reliable absorption, but because a relatively small dose can cover large doses of other opioids, when the patient has been taking the other opioids chronically. There appears to be less crosstolerance to methadone, perhaps because of its NMDA blocking activity (Gorman et al. 1997). This is true only temporarily, however, and tolerance and opioid-induced hyperalgesia will develop readily with methadone with steady use. Tables in textbooks tend to be based on single-dose studies, but clinical situations often involve patients who have had chronic dosing, and this influences the equivalent dose of another opioid, particularly if the duration of action is different.

Methadone is remarkably powerful in a patient naive to this drug, so care must be taken not to start with too high a dose.

Methadone metabolism changes with use and duration of action lengthens each day (Gourlay et al. 1986; Mercadante et al. 1996). A technique that works well for inpatients recovering from acute pain on top of a chronic opioid dependence (other than methadone) is to give methadone every 4 h for three doses, then every 6 h for three doses, then every 8 h, which allows the patient to sleep through the night. For outpatients, three times daily dosing is satisfactory. Mild constriction of the pupils (Verebely et al. 1975) indicates an appropriate methadone effect.

Compared to methadone, short-acting opioids are less comfortable for the patient during detoxification because of fluctuating blood levels, and they do not allow a comfortable sleep through the night. Extended-release morphine does not have a build-up effect and may be immediately given every 12 h, but it is much less reliably absorbed and dosing is more difficult to predict (Gourlay et al. 1986). Detoxification with extended-release morphine can work with the motivated patient, but it is less comfortable than proper dosing with methadone. Extended-release oxycodone has less flexibility in dosing schedules, and if the patient uses up the prescription too rapidly, withdrawal symptoms are intense, stimulating substantial pain behaviors. If the patient is on high doses to start with, detoxification with this drug is exquisitely difficult.

Detoxification using sublingual buprenorphine, a partial mu opioid receptor agonist, is the easiest, safest, and most comfortable, but the

patient must have a base average of only 30 mg or so of methadone or its equivalent. Because buprenorphine binds so tightly to the receptor, it displaces other opioids. Since the other opioids will be full agonists, their displacement at high doses will stimulate withdrawal. A useful technique is to detoxify with methadone down to 30 mg or less, and then switch to sublingual buprenorphine after 24–48 h of abstinence from methadone. Once this is accomplished, the patient could be discharged from the hospital, or leave against medical advice, which may occur with chronic pain patients, and even if no further buprenorphine is taken, minimal to no withdrawal symptoms will occur.

Case example: A 48-year-old man had been treated vigorously with opioid pain medications following surgery 5 years before. He was never weaned off the opioids, and instead his dose gradually rose until he was taking 120 mg of extended-release oxycodone plus 40 mg of immediate-release oxycodone daily. He had been unable to reduce his dose depite seeking to do so on several occassions. He was prescribed methadone as a bridge to buprenorphine. He was instructed to discontinue all oxycodone and substitute methadone 5 mg qid for 1 day, followed by 5 mg tid for 2 days. Then sublingual buprenorphine/naloxone was initiated. The first few days he took 4/1 mg four times daily. Pain did not improve, but did not worsen and he was more comfortable with this regimen. Within 2 weeks he had reduced his total intake to 8/2 mg daily and felt more functional. He was told to treat pain symptoms with acetaminophen, and this proved satisfactory.

22.5.1.1.1 Manage Pain with Nonopioid Medications Simultaneously with Detoxification

Most of the time, the psychiatric consultant will be dealing with patients whose chronic pain is related to a stable condition. The objective medical findings will be those found for most patients who are not dependent on opioid pain medications. The primary need of the patient for opioid medications, then, is psychological, related to conditioning factors and the opioid dependence itself. The patient should be told that the opioids used for detoxification are not actually treating his pain but are eliminating the enhanced pain sensitivity caused by the opioids. Pain treatment will be with other medications. Most often, acetaminophen is satisfactory. The next choice would be nonsteroidal antiinflammatory medications.

The long-term opioid-dependent patient will often reject these choices saying that they do not work. The patient can be told that, of course, they do not work while he or she is dependent on high-dose opioids, but as the pain sensitivity improves, they may once again work as they should.

In addition the patient will do best if told that an as-needed pain medication will be available on request. Psychologically, this is most effective if the medication is given intramuscularly. The medication should be one that will not cause adverse side effects. This can be an antihistamine, such as hydroxyzine, 25 mg IM, or a neuroleptic, such as haloperidol, 0.5 mg IM. These medications can be introduced as adjunctive pain medications that potentiate the opioid effect (Breivik and Rennemo 1982; Schreiber et al. 1997). The patient should be told not to ask for this medication unless absolutely necessary and to try to take it as little as possible. Psychologically, the patient who is most dependent will then be more likely to think that this is a powerful medication, and it will satisfy them for at least 2 or 3 days, during which time detoxification is occurring and the patient is getting better. Tricyclic antidepressant and anticonvulsant drugs can be used also. These will not solve the pain problem, however, and are best used in small doses to avoid adverse effects.

22.5.1.1.2 Provide Psychological Support

Perhaps the most important element of detoxification is the psychological support that can be provided to the patient. The patient must be supported through that critical stage where long-established drug taking habits are changing (Streltzer 1980). The chronic patient will be quite anxious and often dubious of this new approach. The frequent visits, listening to the patients' concerns, and providing confident explanations often repeatedly, goes a long way. When the patient realizes that the consultant is very interested in their well-being

and not simply leaving orders that will make him suffer and then disappearing, the patient begins to develop some trust in the consultant. Because these patients are often demanding, it is tempting not to see them very often, or not until specifically called. It works much better however, and in the long run more efficiently, to make frequent visits even when things are quiet.

22.5.1.1.3 Coordinate Care with Other Providers and with Key Family Members

Coordinating care with the staff and the referring physician is critical so that they understand the treatment and do not inadvertently sabotage it. A house officer covering at night, unfamiliar with the case, may order opioids when the patient complains of pain, rather than utilizing the prn medications available. For outpatients, the physician who had been prescribing the opioids must be contacted to prevent a return to the former medications that were causing the problem.

Spouses or other family members can be extremely helpful unless they are opioid dependent themselves, or abusing and diverting the drugs. Family frequently recognize opioid-related problems when the patient does not. They can help the patient comply with his alternative medications, and they can encourage increased functionality. The encouragement and appreciation of family members can help solidify and sustain the patient's improvement.

22.5.1.1.4 Reinforce Health Behaviors in General

Many if not most of these patients smoke. It is a good idea to talk to him or her about smoking and encouraging consideration of quitting. The patient can be given advice about stopping smoking if any interest is expressed. Some patients will indicate that with all other problems and a medication dependency, smoking is the last thing to worry about. It is still useful to recommend stopping smoking simultaneously with the detoxification process, as it is part of health behaviors in general, and you are concerned with the patient's over all health status. Even if the patient does not show interest in stopping smoking, the underlying message to the patient is that he or she is not just being considered addicted to medications, but that his or her health is the primary consideration. This helps with rapport and trust over the whole process.

Similarly to discussing about smoking, other health behaviors should be brought up. There should be some questions and encouragement with regard to diet and exercise. Finally it is helpful to talk about attitude, encouraging a positive attitude about the patient's willingness to go through this process and to develop a healthier lifestyle. In fact, he or she can be told that the most difficult part of all of this is the psychological part, breaking old habits. Many patients want to see themselves as psychologically strong, and this approach may spur them on to have a more positive attitude toward getting better.

22.6 Conclusion

The psychiatric consultant may receive frequent requests for help with chronic pain patients, especially if they are opioid dependent. Successful consultation requires knowledge about pain syndromes, particularly somatic symptom disorders, pain medications, and treatment approaches. Treatment involving detoxification and nonopioid pain medications with psychological support can be quite effective.

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