Emotional aspects of chronic disease

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As physicians, we are trained to treat disease and promote health, unfortunately in that order. As osteopathic physicians, we are schooled in treating the whole person, not just the dysfunctional organ. There is a psychologic as well as a physiologic reaction to every disease process, and having a general understanding of the emotional reactions to chronic disease can greatly enhance the delivery of clinical care.

The bio-psychosocial model

As Simons and Pardes¹ have observed, "What is spoken of as a clinical picture is not a photograph of a man sick in bed; it is an impressionistic painting surrounded by his home, his work, his relations, his friends, his joys, sorrows, hopes and fears." Chronic physical illness is associated with a variety of emotional problems. The specific nature of the illness (biologic/biomedical factors), the personality and coping style (psychologic factors), and the current life circumstances (social factors) of the patient all must be considered in understanding his/her problems and in formulating a comprehensive treatment plan.

Engel² and others^{3,4} have noted that the dominant model of disease taught in preclinical medical education is biomedical, with molecular biology its basic scientific discipline. This model assumes that disease can be fully accounted for by deviations from the norm of measurable biologic variables, thus leaving no room within its structure for the social, behavioral, and psychologic dimensions of illness. As a result, medical students rarely attain insight into the clinical value of patient conceptualization from a biopsychosocial perspective and its critical importance in the care of the chronically ill. Those students who are taught these concepts tend to view biologic, psychologic, and social

aspects of the patient as separate entities, rather than realizing the intricate interplay of these parts.

The experienced clinician learns to appreciate these issues in attending to the whole person. Good bedside manner incorporates an overall understanding of biopsychosocial issues as they pertain to patient management.

Emotional reactions to disease

When a person becomes ill, he/she is confronted not only with physical discomfort but with the unique psychologic significance of being sick. Coping behaviors that have been successful in day-to-day life are challenged, thus requiring the development of new, or the resurrection of old coping styles. Stress, generated from feelings of loss, is of paramount importance. The patient who is suffering from a chronic illness is confronted with a multitude of losses. The easiest to identify for both the patient and the physician are the real losses; most commonly these are loss of bodily function, income, mobility, and various activities. However, symbolic loss and fantasized loss, despite being much more difficult to identify, usually evoke a more severe emotional response. Symbolic and fantasy losses are often centered around the same event. For example, a woman undergoes a mastectomy and experiences a loss of her femininity/her breast *symbolizing* her womaness. Also, as the result of this symbolic loss, she *fantasizes* the loss of her husband's love and affection, regardless of the level of his actual response. It should be kept in mind that fantasied losses can become real losses.

Regression is one of the most common emotional responses to illness. Passivity and dependency, associated with the onset of illness and its treatment,

can lead to a regression to a psychologic state appropriate to a time in the patient's life where dependency was accepted—childhood.⁵ Despite the difficulty that this demanding, childlike behavior with low frustration tolerance can create for caregivers and family, it can serve an important function for the patient. The relief of anxiety associated with feelings of dependency and loss of control allows the patient to be more compliant in accepting care. It also makes it easier for the patient to return to the responsibilities of adulthood when his/her condition allows, without feeling embarrassed about their behavior. Regression can become detrimental if (1) it becomes too severe/or (2) it goes on too long. Although the overly dependent, passive, compliant patient might cause little problems for the clinician initially, prolonged behavior of this type stands in the way of effective long-term care.

Previous experiences with illness and caretaking affect a patient's reactions to illness in the present (illness behavior). Patients who have learned that caregivers can be relied upon to protect them, and that becoming ill is not a devastating experience, can accept the need to depend on others, relinquish control gracefully, and better tolerate loss of function and separation from loved ones. On the other hand, patients who have received inconsistent or unreliable caretaking, and who have met with uncaring or angry responses when they were sick, are likely to be untrusting and apprehensive of their physicians, their present-day unconscious parental figures.^{6,7} This situation can be very frustrating for the empathic doctor who cannot understand why the patient acts out in an angry or ungrateful way despite his or her best clinical efforts. It must be remembered that the patient is responding unconsciously as if the doctor were the parent, or someone else of importance (transference phenomena). Although the initial response from the physician might be anger or confusion over the patient's behavior, if the actions have no basis in reality, the clinician should consider the possibility of unconsciously motivated acting out. Making a patient consciously aware of what they are doing in a non-accusatory fashion can prove helpful.

Another commonly seen emotional reaction of the chronically ill patient is denial. This is often present in conditions where pain is minimal or absent, such as in hypertension. In an attempt to deal with the anxiety generated by being ill and/or hospitalized, the patient may seem to ignore the severity of his/her condition. As with regression, this can be very frustrating for the family and attending physician, who often view this as conscious noncompliant behavior. Like other ego defense mechanisms, keeping anxiety within

tolerable limits serves a valuable function. Excess anxiety and stress contribute to underlying depression and the increased secretion of catecholamines, which adversely affect the recovery process. It is important for the clinician to be aware of and address the issue of denial. Even though it does help to bind anxiety, it can lead to dangerous non-compliant behavior. Common examples include the cardiac or hypertensive patient who ignores diet, exercise, and medication recommendations, or the chronic obstructive pulmonary disease patient who continues to smoke. Again, making the patient aware of his/her behavior while offering alternative stress reducing and coping skills in an empathic manner is paramount if one is to achieve optimal therapeutic results.

Patient management

To successfully intervene, the clinician must first identify what the patient is afraid of and how the particular illness is evoking anxiety. The best way to obtain this information is to discuss the matter with the patient. As an experienced clinician, it is tempting to assume that one knows the patient's inner fears. However, what is assumed to be the patient's anxieties is often one's own if confronted with a similar situation—not the patient's. Important issues to explore include altered body image, deterioration of self esteem, fear of loss of love and acceptance, fear of death, loss of sexual functioning, fear of relying on strangers for care, feelings of guilt (illness is punishment for past acts), fear of loss of control, fear of pain, and separation from family. Once identified, the physician can intervene appropriately.

Educating a patient about his/her illness and its treatment is very effective in reducing anxiety and increasing compliance in most patients. When a patient understands why taking medication at specific times, despite lack of ongoing symptoms, is important, he/she is more likely to comply. Also, a well-educated patient recognizes early warning signs and knows the importance of prompt intervention. It is amazing to discover how many fears are based on fantasy rather than fact. Allowing a patient to take an active role in his/her treatment is beneficial for both the patient and the doctor. The patient tends to feel less out of control if he/she is included in treatment decisions, leaving the doctor with a more compliant patient. The importance of empathy (understanding how it must be for the patient) and genuine concern on the part of the physician cannot be overstated. When potential pain is an issue, assure the patient that every effort will be made to manage it. Always attempt to give the patient something to feel hopeful about. Even

the post-therapeutic patient can look forward to better pain management and improved sleep, for example. Allow patients to express their fears and help them deal with them. This can be remarkably effective in reducing anxiety and stress. Spiritual issues should be addressed and appropriate personnel made available to the patient when appropriate.

When should the primary care physician refer a patient for psychiatric consultation, and how should it be done? Patients who manifest acute maladaptive changes in behavior, who report or show feelings of helplessness or hopelessness, who have a past psychiatric history, or any patient the physician feels uncomfortable about, should be referred for psychiatric consultation. The patient should be informed that the stress of having a chronic illness is difficult for anyone and that a respected colleague can work with him/her to help increase the effectiveness of the total treatment plan. Never have a patient feel that they are being "shipped to the shrink." Not only will the patient feel abandoned, but the psychiatrist will be greatly hampered.

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Accepted for publication in July 1986. Updating, as necessary, has been done by the author.

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CONTRAINDICATIONS: FELDENE (piroxicam) should not be used in patients who have previously exhibited hypersensitivity to it, or in individuals with the syndrome comprised of bronchospasm, nasal polyps and angioedema precipitated by aspirin or other nonsteroidal anti-inflammatory drugs.

WARNINGS: Peptic ulceration, perforation and G.I. bleeding—sometimes severe, and, in some instances fatal—have been reported with patients receiving FELDENE. If FELDENE must be given to patients with a history of upper gastrointestinal tract disease, the patient should be under close supervision (see ADVERSE REACTIONS).

PRECAUTIONS: Renal Effects: As with other nonsteroidal anti-inflammatory drugs, long-term administration of piroxicam to animals has resulted in renal papillary necrosis and other abnormal renal pathology. In humans, there have been reports of acute interstitial nephritis with hematuria, proteinuria, and occasionally, nephrotic syndrome.

A second form of renal toxicity has been seen in patients with preexisting conditions leading to a reduction in renal blood flow or blood volume, where the renal prostaglandins have a supportive role in the maintenance of renal perfusion. In these patients administration of an NSAID may cause a dose-dependent reduction in prostaglandin formation and may precipitate overt renal decompensation. Patients at greatest risk of this reaction are those with impaired renal function, heart failure, liver dysfunction, those taking diuretics, and the elderly.

Because of extensive renal excretion of piroxicam and its biotransformation products (less than 5% of the daily dose excreted unchanged), lower doses of piroxicam should be anticipated in patients with impaired renal function, and they should be carefully monitored.

Although other nonsteroidal anti-inflammatory drugs do not have the same direct effect on platelets that aspirin does, all drugs inhibiting prostaglandin biosynthesis do interfere with platelet function to some degree.

Because of reports of adverse eye findings with nonsteroidal anti-inflammatory agents, it is recommended that patients who develop visual complaints during treatment with FELDENE have ophthalmic evaluation.

As with other nonsteroidal anti-inflammatory drugs, borderline elevations of one or more liver tests may occur in up to 15% of patients. A patient with symptoms and/or signs suggesting liver dysfunction, or in whom abnormal liver tests have occurred, should be evaluated for evidence of the development of more severe hepatic reaction while on therapy with FELDENE.

Severe hepatic reactions, including jaundice and cases of fatal hepatitis have been reported with FELDENE. Although such reactions are rare, if abnormal liver tests persist or worsen, if clinical signs and symptoms consistent with liver disease develop, or if systemic manifestations occur (e.g., eosinophilia, rash, etc.), FELDENE should be discontinued. (See also ADVERSE REACTIONS.)

Although at the recommended dose of 20 mg/day of FELDENE increased fecal blood loss due to gastrointestinal irritation did not occur, in about 4% of the patients treated with FELDENE alone or concomitantly with aspirin, reductions in hemoglobin and hematocrit values were observed.

Peripheral edema has been observed in approximately 2% of the patients treated with FELDENE. Therefore, FELDENE should be used with caution in patients with heart failure, hypertension or other conditions predisposing to fluid retention.

A combination of dermatological and/or allergic signs and symptoms suggestive of serum sickness have occasionally occurred in conjunction with the use of FELDENE. These include arthralgias, pruritus, fever, fatigue, and rash including vesicular bullous reactions and exfoliative dermatitis.

DRUG INTERACTIONS: Interactions with coumarin-type anticoagulants have been reported with FELDENE since marketing. Therefore, physicians should closely monitor patients for a change in dosage requirements when administering FELDENE to patients on coumarin-type anticoagulants and other highly protein-bound drugs.

Plasma levels of piroxicam are depressed to approximately 80% of their normal values when FELDENE is administered in conjunction with aspirin (3900 mg/day), but concomitant administration of antacids has no effect on piroxicam plasma levels.

Nonsteroidal anti-inflammatory agents, including FELDENE, have been reported to increase steady state plasma lithium levels. It is recommended that plasma lithium levels be monitored when initiating, adjusting and discontinuing FELDENE.

Carcinogenesis, Chronic Animal Toxicity and Impairment of Fertility: Subacute and chronic toxicity studies have been carried out in rats, mice, dogs, and monkeys.

The pathology most often seen was that characteristically associated with the animal toxicology of anti-inflammatory agents: renal papillary necrosis (see PRECAUTIONS) and gastrointestinal lesions.

In classical studies in laboratory animals, piroxicam did not show any teratogenic potential.

Reproductive studies revealed no impairment of fertility in animals.

Pregnancy and Nursing Mothers: Like other drugs which inhibit the synthesis and release of prostaglandins, piroxicam administration continued late into pregnancy increased the incidence of dystocia and delayed parturition in animals. Gastrointestinal tract toxicity was increased in pregnant females in the last trimester of pregnancy compared to non-pregnant females or females in earlier trimesters of pregnancy.

FELDENE is not recommended for use in nursing mothers or in pregnant women because of the animal findings and since safety for such use has not been established in humans.

Use in Children: Dosage recommendations and indications for use in children have not been established.

ADVERSE REACTIONS: Gastrointestinal symptoms are the most prominent side effects, occurring in approximately 20% of the patients, which in most instances did not interfere with the course of therapy. Of the patients experiencing gastrointestinal side effects, approximately 5% discontinued therapy with an overall incidence of peptic ulceration of about 1%.

Adverse reactions are listed below by body system for all patients in clinical trials with FELDENE (piroxicam) at doses of 20 mg/day.

Incidence Greater Than 1%: The following adverse reactions occurred more frequently than 1 in 100.
Gastrointestinal: stomatitis, anorexia, epigastric distress; nausea; constipation, abdominal discomfort, flatulence, diarrhea, abdominal pain, indigestion.

Hematological: decreases in hemoglobin and hematocrit* (see PRECAUTIONS); anemia, leucopenia, eosinophilia.

Dermatologic: pruritus, rash.

Central Nervous System: dizziness, somnolence, vertigo.

Urogenital: BUN and creatinine elevations (see PRECAUTIONS).

Body as a Whole: headache, malaise.

Special Senses: tinnitus.

Cardiovascular/Respiratory: edema (see PRECAUTIONS).

*Reactions occurring in 3% to 9% of patients treated with FELDENE.

Incidence Less Than 1% (Causal Relationship Probable): The following adverse reactions occurred less frequently than 1 in 100. The probability exists that there is a causal relationship between FELDENE and these reactions.

Gastrointestinal: liver function abnormalities, jaundice, hepatitis (see PRECAUTIONS), vomiting, hematemesis, melena, gastrointestinal bleeding, perforation and ulceration (see WARNINGS), dry mouth.

Hematological: thrombocytopenia, petechial rash, ecchymosis, bone marrow depression including aplastic anemia, epistaxis.

Dermatologic: sweating, erythema, bruising, desquamation, exfoliative dermatitis, erythema multiforme, toxic epidermal necrolysis, Stevens-Johnson syndrome, vesicular bullous reactions, phototoxic skin reactions.

Central Nervous System: depression, insomnia, nervousness.

Urogenital: hematuria, proteinuria, interstitial nephritis, renal failure, hyperkalemia, glomerulitis, papillary necrosis, nephrotic syndrome (see PRECAUTIONS).

Body as a Whole: pain (colic), fever, flu-like syndrome (see PRECAUTIONS).

Special Senses: swollen eyes, blurred vision, eye irritations.

Cardiovascular/Respiratory: hypertension, worsening of congestive heart failure (see PRECAUTIONS), exacerbation of angina.

Metabolic: hypoglycemia, hyperglycemia, weight increase, weight decrease.

Hypersensitivity: anaphylaxis, bronchospasm, urticaria/angioedema, vasculitis, "serum sickness" (see PRECAUTIONS).

Incidence Less Than 1% (Causal Relationship Unknown): Other adverse reactions were reported with a frequency of less than 1 in 100, but a causal relationship between FELDENE and the reaction could not be determined.

Gastrointestinal: pancreatitis.

Dermatologic: onycholysis, loss of hair.

Central Nervous System: akathisia, hallucinations, mood alterations, dream abnormalities, mental confusion, paresthesias.

Urogenital System: dysuria.

Body as a Whole: weakness.

Cardiovascular/Respiratory: palpitations, dyspnea.

Hypersensitivity: positive ANA.

OVERDOSAGE: In the event treatment for overdosage is required, the long plasma half-life of piroxicam should be considered. The absence of experience with acute overdosage precludes characterization of sequelae and recommendations of specific antidotal efficacy at this time. It is reasonable to assume that the standard measures of gastric evacuation and general supportive therapy would apply. In addition to supportive measures, the use of activated charcoal may effectively reduce the absorption and reabsorption of piroxicam. Experiments in dogs have demonstrated that the use of multiple-dose treatments with activated charcoal could reduce the half-life of piroxicam elimination from 27 hours (without charcoal) to 11 hours and reduce the systemic bioavailability of piroxicam by as much as 37% when activated charcoal is given as late as 6 hours after administration of piroxicam.

ADMINISTRATION AND DOSAGE: Rheumatoid Arthritis, Osteoarthritis: It is recommended that FELDENE therapy be initiated and maintained at a single daily dose of 20 mg. If desired, the daily dose may be divided.

Dosage recommendations and indications for use in children have not been established.

More detailed professional information available on request.

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