The Temporomandibular Joint and Related Orofacial Disorders

Fransis M Bush, M Franklin Dolwick

J B Lippincott Company, Philadelphia

6

Screening

A universally accepted diagnostic scheme is needed to manage patients with TM disorders appropriately. Although no scheme has acquired universal acceptance, a general sequence has been proposed that appears useful (Table 6-1). Its goals are lofty - improved decisions making and reduced diagnostic failures.

Table 6-1. Proposed Diagnostic Sequence for Management of Patients

Identification of perceived abnormality
Initial triage
Gathering of data
Specific tests
Radiography
Comparison of discovered data versus classic signs and symptoms of disease
Tentative estimates of probable diagnosis
Acquisition of other data as needed
Refinement of working diagnosis
Tailoring plan of treatment to diagnosis.

The sequence includes a screening of the patient's general health history. The history gives the clinician an overview of the patient's health and experience in the health care delivery system. The clinician also gains insight into the patient's attitudes about health service and other medical personnel involved in the treatment. This history can be initiated with a self-administered checklist followed by a clinical interview.

After a review of the patient's general health, the clinician should screen for signs and symptoms of TMD. This screening can be initiated with the special questionnaires. Unfortunately, few assessment instruments involving TMD have been validated. One that has been validated is the Orofacial Pain Symptom Checklist, which was modified from a commonly employed instrument used to evaluate TMD. Many questions from this instrument are included in the questionnaires in this chapter. This self-report instrument assesses specific symptoms that are not biased by psychological disturbance. It has good test-retest reliability for measuring several symptoms and ought to be useful for evaluating treatment outcome. Questionnaire items are divided into four indices: joint movement (JM), parafunction (PI), circumoral complaints surrounding the cheeks and temples (CO), and painful symptoms (PSI). The pain symptom index proved most informative about the disability of the patient.

Additional questionnaires here have been modified from the Registration Questionnaire used in the Temporomandibular Joint and Orofacial Pain Research Center of the Medical

College of Virginia Commonwealth University, which opened around 1973. Questions about pain and emotional suffering as assessed by Visual Analogue Scales (VAS) were drawn from selected publications. The VAS is a 100-mm horizontal line representing a pain or suffering continuum. At one end of the line are the words, "No sensation" and at other end "Worst sensation imaginable."

Patients are instructed to mark the line at the point that corresponds to their perceived amount of sensation. The mark is translated to a numerical value from 0 to 100. The level of sensation or emotion can be judged before and after treatment to measure treatment outcome.

Caveat: Although other instruments can be chosen to assess pain, the high rate of variability over time in reporting of pain among TMD cases may rule against implications for clinical practice. Only pain of the masticatory muscles on palpation has been correlated with report of pain intensity among TMD patients. No significant relation was found between pain intensity and clicking, between pain intensity and range of mandibular motion or between pain intensity and tooth grinding.

Another instrument for assessment is the TMJ Scale, which is available on a fee-for-service basis from Pain Resource Center Inc (Durham, NC). This inventory recognizes the multidimensional etiology of TMD. Its 10 subscales are organized into a global domain that represents the single best predictor for the presence of TMD. A physical domain assesses joint dysfunction, self-report, and palpation of pain, and a psychosocial domain judges psychological disturbance. Preliminary studies show content validity, test-retest reliability, and some measure of specificity-sensitivity.

Most clinicians agree that screening should be done for psychological disorders because emotional factors impact greatly on the course of TMD. Some may wonder if one self-reported psychological questionnaire is better than another. This issue has been settled to some degree. A comparison of questionnaires responded to by TMD patients revealed important correlations between seven depression scales and between four anxiety tests. Because little difference in reliability was found, the single-question depression and anxiety instrument has been selected. If more information is needed about the "distress" status of the patient, the clinician can choose from many other questionnaires.

Initial Contact

The initial contact should help the patient feel cared about and inspire a sense of trust in high-quality practice. Whether the appointment administrator greets the patient in person or by phone, the meeting should be cordial and concerned with the details of the appointment. Specific questions should include the following:

1. How may I help you?
2. May I ask you some questions about your appointment or your visit?
3. Whom may we thank for referring you?

Additional information about the patient's problem can be obtained from a self-administered questionnaire. The necessary form can be mailed to the patient and completed

before examination. The questionnaire should be accompanied by an appointment card, a map, and a letter discussing the details of patient registration.

The appointment administrator should greet new patients by name and introduce him or herself. The introduction should be done while standing. The administrator asks for completed forms and requests that the patient complete any other forms. The staff should assist with completion of these forms, particularly if insurance is involved. The appointment administrator should review the forms for completeness and notify the assistant that the patient has arrived.

Symptom History

A questionnaire allows patients to organize their thoughts and to gather data about prior diagnosis and treatment. Its completion saves time that the clinician can devote to interviewing and examining the patient. The clinician should pay particular attention to the regions the patient marks as painful on the anatomic diagrams.

The Interview

After the clinician reviews the questionnaire, he or she should discuss the data with the patient. This discourse is crucial because reliance on data obtained from health questionnaires has proved inadequate for assessing the problem of some patients. In a study of 415 dental patients, 15% of the vital information about health status obtained in the interview was not documented in the questionnaire.

Nature of the Complaint

Notes from an interview should be recorded on a separate sheet of paper. The interview should focus on the patient's complaint and on correcting myths or misinformation about the problem. The interviewer should explain reasons for asking questions. Patients speak more freely if they understand a question's purpose. Most appreciate the opportunity to talk about their problem.

The interviewer should provide good eye contact and perhaps physical contact if the patient is tense. Although patients may have visited other doctors in search of a solution to their problems, they may not have received a diagnosis or may not have understood what the doctor told them; therefore, the interviewer should talk in terms the patient can understand and should listen carefully to the patient. If the clinician has any doubts about the patient's comprehension of a statement, he or she should ask the patient to repeat what was said.

The clinician should direct the course of the interview, which should flow without interruption. Along with the symptom checklist, communication should be guided towards a history of the patient's problem. Care should be made not to judge the patient as the problem. Clinicians should avoid early opinions or having a critical attitude about their own assumptions. They should listen attentively, particularly for "hidden questions." The clinician must not allow the patient to dominate the conversation for longer than five minutes without interruption. Although the patient in pain may exhibit anger or hostility, the clinician should exhibit neither. The patients' true concerns should be answered.

Remember that the goals are to identify the chief complain, reconstruct the circumstances that led to its onset, and determine any factors that may have modified the problem. Achieving these goals is not easy. Patients often have diffuse symptoms and may have difficulty locating the site of the complaint.

Leading questions should include the following:

1. What is your chief complaint?
2. Has your condition changed within the past 24 hours?
3. Can you tell me the time of onset?
4. Can you place a finger on a specific location that bothers you?
5. Where else does it hurt?
6. How has the complaint affected your daily activities?
7. Have any of your doctors diagnosed your condition?

Dialogue about associated pains and miscellaneous symptoms should occur. Some complaints may represent disorders other than TMD and may compromise success in treatment. These include aching in the teeth, sinuses, ears, head, or neck.

Significance: The chief subjective features of TMD should be kept in mind: dull aching pain in or around the jaw and ear that may become sharp or throbbing during function. Pain with the jaw at rest should signal the clinician that the problem probably originates from another source. *Caveat:* Complains of numbness or swelling should be heeded because of potential involvement with neoplasia.

Patients may complain of nuisances such as ill-fitting eyeglasses, shape or color of teeth, or facial changes associated with aging. These complaints usually have little effect on the outcome of the current problem and should be referred appropriately.

Etiology

The interview offers an opportunity to discuss possible etiologies of the complaint. Events in the history such as oral habits, physical trauma, or whiplash should be discussed, and details of their occurrence should be documented.

Significance: As a general rule, subtle events play little role in current complaints.

Social Interactions and Psychological Needs

Some clinicians feel uncomfortable discussing the patient's social history or psychological needs. The social history encompasses work, relationships, and play. If the solo practitioner believes that the patient's complaints arise from social or psychological imbalance and does not want to deal with them, the patient should be referred appropriately. In a multidisciplinary setting, these matters can be managed by a clinical psychologist.

Key features of social interaction may be determined from the questionnaire. A "yes" response for the interference of pain with daily activities or for the depression and anxiety subscales probably signals pending problems. Avoidance of social activities, work, and

parenting and interruptions in healthful sleep patterns are powerful indicators of problems that require decisions.

Significance: Unless a major event has occurred recently, most social or psychological factors can be ruled out as affecting the current problems.

Medications

Discussion about the use of medication is necessary. Specific questions provide the clinician with some understanding of the severity of problem, drug interactions, and potential abuse. The clinician who discovers a patient with a history of many different kinds of medications or with long-standing use of pain relief medication should obtain a satisfactory reason from the patient and documentation from their doctors about past and present needs.

Significance: Successful management may require medication. Some patients may be overmedicated, whereas others who refuse may be helped by it.

Other Treatments, Insurance, and Costs

To assess outcome, details of previous treatments should be reviewed. Treatments such as physical therapy, oral appliances, or joint surgery may be viewed by the patient as worthless for various reasons. Many patients will not wear an ill-fitting oral appliance. Massage therapy to the jaw for a disorder arising in the neck is another example. The patient may have negative feelings about the results of surgery of the TMJ, even though it may be judged successful by surgical standards.

Often, health care providers are confronted by unwanted dialogue about insurance coverage or excessive costs of previous treatment. Such matters must be resolved expeditiously. Questions about insurance should be directed to the administrator in charge of coverage. Consideration about prior fees or treatment from another clinician should be approached cautiously. A financial agreement between the patient and another clinician should be resolved between those parties. Patients must be informed of the current status of their oral health, but disparaging remarks by a clinician about a patient's prior services is unethical.

Significance: The review of questionnaire data and interview about prior health care are time-consuming activities. Clinicians should educate themselves to accept payment for time spent in this manner, and patients should pay accordingly.

Location and Kind of Pain

Do you have pain in, around, or for any of the following?

Ears
Cheeks
Temples
Forehead
Nose
Teeth
Gums
Neck
Causing frequent headache
Causing frequent eyeache
During yawning or talking
During sleeping
Interfering with daily activities
Interfering with appetite
Other areas not listed
Date your pain began: Year ___ Month ___

Where does your pain occur? Circle the number which best fits your problem.

1. Right side only
2. Mostly on the right side
3. Both sides equally
4. Mostly on the left side
5. Left side only

What is the degree of your suffering?

Check along the line below (with an X) the *intensity* of sensation at your usual level of pain.

No Sensation ________________________________ Most Sensation Imaginable

Check along the line below (with an X) the *discomfort* (bothersome, unpleasantness) at your *usual* level of pain.

Not unpleasant ______________________________ Most Discomfort Imaginable

Possible Causes of Pain

Check any of the following circumstances that may be related to onset of your pain: 1 = most likely, 2 = second most likely, and 3 = third most likely.

Pain just began
Accident (eg, whiplash)
Psychological stress
Dental treatment
Oral habits
Following surgery
Following illness
Other not listed

Circle any of the following factors that may affect your pain: 1 = decreases pain, 2 = little change, 3 = increases pain.

Caffeinated drinks (cola, tea, chocolate)
Alcohol-contained drinks
Monosodium glutamate (MSG)
Onions, garlic
Spicy food
Nitrites (bacon, hot dogs, ham)
Bright lights
Loud noise
Weather changes (dampness)
Massage
Pressure
Mild exercise
Staying still
Fatigue
Menstruation
Sexual intercourse
Urination, defecation
Tension on the job or at home
Others not listed (specify ___)

Physical Symptoms

Do you have jaw problems with any of the following?

Opening your mouth wide
Moving your jaw from side to side
Your jaw deviating to the side on opening
Clicking in the joint during movement
Popping in the joint during movement
Grating (grinding) in the joint during movement
Fatigue, tightness, or stiffness
Numbness
Arthritis in the joint
Trauma to your joint

Do you have neck problems with any of the following?

Injury
Pain
Hurt when turning or bending head
Noises on movement
Neck gets stuck in one position
Numbness
Disturbs your sleep

Do any of these occlusal activities cause you difficulty?

Chewing hard foods hurts your teeth
Bite feels uncomfortable
Teeth "don't fit together"
Teeth feel loose
Teeth are wearing down
Clamping (clenching) your teeth
Shifting of your teeth
Teeth are sensitive to cold
Teeth are sensitive to hot

Emotional Status

Check along each of the lines below (with an X) the intensity of FEELING as it relates to your usual level of pain.

None Most Severe Imaginable

Depression ______________________________
Anxiety ______________________________
Frustration ______________________________
Anger ______________________________
Fear ______________________________

Circle any of the numbers that best fits your current problem.

How depressed are you?

Never Often

1 2 3 4

Do you consider yourself more calm than tense?

1 2 3 4

Calm Tense

Health Care Providers and Treatment

Have you seen any of the following health care providers for your problem?

General dentist
Oral surgeon
Orthodontist
Periodontist
Endodontist
Prosthodontist (dentures, bridges)
General physician
Otolaryngologist (ear, nose, throat)
Neurologist
Internist
Psychiatrist
Clinical psychologist
Physical therapist
Occupational therapist
Radiologist
Others not listed (specify ___)

Circle one of the following numbers for any treatment that you actually received for your current problem: 1 = complete improvement, 2 = little change, 3 = worse.

Dental restorations (removable)
Dental restorations (fixed)
Dental extraction
Endodontics (root canal) therapy
Dental occlusal adjustment
Dental oral appliance (splints, guards)
Orthodontics
Orthognathic surgery
Periodontal surgery
TMJ surgery
Ultrasound
Transcutaneous electric nerve stimulation (TENS)
Muscle stimulation
Massage therapy (myofascial release)
Heat
Cold
Vapocoolant spray
Nerve/muscle injection
Joint injection
Psychotherapy (counseling)
Hypnotherapy
Relaxation therapy
Biofeedback
Acupuncture, acupressure

Radiation therapy
Hospitalization
Others not listed (specify ___)

Circle one of the following numbers for any medications that you have taken for your current problem: 1 = decreased problem, 2 = little change, 3 = increased problem.

Analgesics (eg, aspirin, ibuprofen)
Narcotics (eg, codeine)
Minor Tranquilizers (eg, Valium)
Major Tranquilizers (eg, Thorazine)
Antidepressants (eg, amitriptyline)
Barbiturate/hypnotics (eg, Nembutal)
Stimulants/antihistamines (eg, Antivert)
Antiseizure (eg, Tegretol)
Antimigraine (eg, Cafergot)
Antiarthritics (eg, cortisone)
Antibiotics (eg, penicillin)
Others not listed (specify ___)