The Temporomandibular Joint and Related Orofacial Disorders

Fransis M Bush, M Franklin Dolwick

J B Lippincott Company, Philadelphia

Preface

This book was written for current and future practitioners of dentistry and medicine, and for health professionals in allied fields. We intend it to serve as a succinct and readable text that will have practical value in the diagnosis and treatment of individuals suffering from temporomandibular disorders. It is predicated on the premise that the affected individuals in the general population are primarily the concern of the general practitioner. While much of the complex treatment of these individuals can be managed by various specialists in dentistry and medicine, and then delegated to auxiliary service groups of these specialities, the widespread prevalence of temporomandibular disorders in the population makes it necessary for the general dentist to be responsible for the primary care of affected individuals.

The text begins with information on the history of temporomandibular disorders and clarification of some of the terminology used in the field. In addition, detailed descriptions of pertinent anatomy and physiology of the masticatory system are presented to reinforce practitioners' comprehension. Major symptoms and signs of TMJ disoders are delineated from incidental complaints and associated clinical findings.

Several possible etiologies are discussed because of differing opinions about the causes of temporomandibular disorders. This discussion leads to a review of epidemiological studies conducted on populations around the world. This review seeks to clarify some of the information associated with gender- and age-related relationships.

To reinforce the discussion of these fundamental concepts, practical methods are described that enable the practitioner to screen, examine, and differentially diagnose temporomandibular disorders from similarly presenting complaints. The text also discusses the concept of algorithms for keying temporomandibular disorders; in essence, these are decision-trees for identifying and evaluating signs and symptoms that lead to successful diagnosis of these disorders.

Conservative treatments are addressed which should help both the practitioner and the patient to manage the pain and the impairment of TMJ disorder. Wherever possible, the literature on therapies is reviewed to prevent practitioners from recommending obsolete and useless procedures. Surgical therapies are considered on the face of available evidence regarding success and failure outcomes.

The text also presents details about record keeping, management of insurance claims, quality assurance, and potential litigation. Information about insurance claims is discussed so that practitioners can identify appropriate codes for services rendered. Instructions are given for writing a narrative report. The need for detailed and accurate treatment records, which may prevent legal action, is discussed.

The book is devoted to improving self-confidence in management of temporomandibular disorders. We believe that when practitioners finish it, they will be wiser than they were. While no practitioner will possess all of the answers about temporomandibular disorders, each should develop a more authoritative professional image concerning care of these disorders. Instructions are presented that allow practitioners to effectively communicate useful information to their patients. From this base of information, they will be able to raise the level of consciousness of their patients. Practitioners and patients both will then be better equipped to understand significant symptoms and signs, to understand a diagnosis, and to select an appropriate treatment to improve temporomandibular health.

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Scope of the Problem

The temporomandibular joint (TMJ) is the anatomic region where the lower jaw attaches to the skull. The term "TMJ" has been popularized in the modern world primarily as a complaint involing pain and discomfort of the jaws. It is considered an orofacial or masticatory disturbance because the complaints involve the mouth. Many vague physical complaints, including those somewhat removed from the oral cavity, also have been imputed to this condition.

Temporomandibular (TM) complaints have been difficult to subject to an accepted system of classification. When patterns of signs (what the doctor sees) and symptoms (what the patient reports) occur simultaneously, the condition is referred to as a *syndrome.* Because certain TM complaints are often characterized by both pain and abnormal function, these complaints at one time were broadly classified as *TMJ syndrome* or *TMJ dysfunction syndrome.* This classification was further divided into true joint (ie, TMJ) complaints and muscle-related complaints surrounding the TM region. Because painful symptoms have been associated with the covering or fascia on the muscles associated with the joint, this kind of disturbance has been referred to as myofascial pain dysfunction syndrome (MPDS), myofascial pain syndrome (MPS), and sometimes "myofacial" pain syndrome (because the face is involved).

Still other confusing terminologies have persisted in the literature, including mandibular dysfunction (MD), craniomandibular disorder (CMD), and craniofacial disorder (CFD), because the complaints involved the head, jaw, and face. Other terms, based on structural changes within the joint, have included internal derangement (ID) and degenerative joint disease (DJD). Pain dysfunction syndrome (PDS) has been linked to TMJ as a disease entity and thus has contributed to the present controversy about these complaints.

The considerable overlap among these signs and symptoms has prevented the establishment of a generally accepted classification. In 1982, a group of prominent health care practitioners met at the headquarters of the American Dental Association in Chicago and agreed that these complaints should be broadly classified as temporomandibular disorders (TMDs). Collectively, TM complaints seem to represent an assemblage of disorders that can be divided into subcategories or subsets. To put it another way, disorders of the TM region probably are not a single disease entity but represent a family of clinical conditions. In many ways, TM disorders form a branch of the tree of musculoskeletal dysfunctions that affect the

average person during his or her lifetime. These orofacial complaints are referred to as TM disorders or TMDs throughout this text.

In a short period of time, TM disorders have gone from a relatively unknown problem to one that is diagnosed in a significant number of cases. Although these symptoms have been recognized for more than 40 years, only since the 1970s have these disorders been widely diagnosed. Since then, the diagnosis has become common. Because the symptoms seem to mimic those of many other conditions, some dentists, physicians, chiropractors, and physical therapists have attributed many of the puzzling symptoms of their patients to these disorders. Practitioners in search of a way to explain confusing symptoms have thus developed a wastebasket diagnosis that comes in handy when no other seems appropriate. Even for many expert practitioners, it is frustrating trying to discern whether it is "just TMJ" or some other clinical condition.

TM disorders have been the subject of much research over the past few years. No "one cause - one disease" relation has been established. Most cases of TM disorders begin with a few symptoms. These mild symptoms can represent a disorder of the joint or of the muscles that control the joint. Increased tension of the muscles is the most frequent problem. Because muscle tension is often the first stage of response to difficult life events, anxiety or any stressful sitation may provoke an episode of muscular tension about the face, jaw, head, or neck. Pain and stiffness can develop in the jaw and restrict the movement of the mouth.

For individuals who can open their mouths only halfway, hear a clicking sound when they move their jaws, or cannot chew their food, life may be a "living hell". Many have to live with the pain and discomfort for several years. They do not always appear to be in extreme pain, yet they spend a great deal of time trying to convince relatives and employers that they really suffer. Some are labeled "kooks" because they manifest symptoms suggestive of more complex illness behavior.

Practitioners who try to diagnose these disorders say that because there are so many different kinds of symptoms, treatment from various kinds of doctors may be necessary to reduce the complaints. Specialists from many disciplines, including dentistry, neurology, psychology, physical medicine, otolaryngology, and chiropractic care, are often involved in the management of these cases. With so many different kinds of treatment available, it is difficult for the patient, practitioner, and insurance company to tell which, if any, works and why it works.

For the practitioners, risk management is significant. No practitioner wants treatment failures that result in dissatisfaction by the patient, and if a practitioner does not use standard-of-care procedures, there is an increased risk for negligence in care.

Because of the disagreement about the diagnosis among practitioners, the potential for abuse from overdiagnosis, and the uncertainty about the need for treatment, insurance companies have rejected many claims that involve TM disorders. Many companies are willing to pay to obtain surgical treatment for patients, and some provide optional coverage for conditions that do not require surgery. Rejection thus has been common when there has been a nonsurgical claim for certain dental procedures. Even when this kind of treatment is considered, most companies require a lengthy, written diagnosis to explain patient complaints

and the reason for treatment. Yet these same companies pay willingly for nonsurgical treatment of the hip, knee, ankle, or shoulder joints. This kind of indifferent thinking infuriates patients and irritates honest practitioners.

In cases of long-standing pain, TM disorders often have been a source of litigation in the determination of disability. Most of these cases have been associated with trauma following accidents. A few cases have been concerned with pain and disability purported to be caused by orthodontic or surgical treatment.

As a dental practitioner, you will be confronted with patients who have symptoms characteristic of musculoskeletal disorders. Some of these symptoms may appear in the form of a TM disorder. Your patients will want to know many things about this disorder. If you master the material in this textbook, you will be able to communicate this information to your patients, diagnose their complaints correctly, and manage them appropriately.