PART I

BASIC CONCEPTS OF HEAD, FACE AND NECK PAIN

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It is more important to know what sort of person has a disease than to know what disease a person has.
—Sir William Osler

Pain is a complex sensory, emotional, and behavioral process. Pain can range from being a protective process (acute pain) to a destructive process (chronic pain). Depending upon the underlying anatomical process, acute pain can often be effectively treated, and pain often resolves when healing or resolution of the problem occurs. In the case of chronic pain conditions, the initial underlying process may have little to do with factors that maintain the patient’s pain. With chronic pain, common epiphenomena include suffering, disability, and depression. As well-meaning clinicians struggle with the patient to find a “cure,” the patient often develops iatrogenic problems secondary to multiple destructive interventions.

The number of patients suffering from chronic pain conditions is great, with as many as 75 million in the United States suffering from serious pain and 50 million experiencing some level of disability due to their pain. While facial pain conditions represent a small portion of all chronic pain conditions, the financial costs still amount to $1.9 billion per year, and the quality of life costs for the facial pain patient are often incalculable.

The complex anatomy, physiology, and neurobiology of the head, face, and neck combines to make the differential diagnosis of pain disorders of this area of the body significantly broad and complex. While there are numerous classification schemes for pain disorders, the most comprehensive classification of pain disorders of the head, face, and neck is the 2004 International Headache Society (IHS), International Classification of Headache Disorders II (ICHD II) (1). While generalized classification schemes are helpful for clinical research and consistency of diagnostic criteria, they can often be confusing, are often over- or underutilized, and are not always universally accepted.
In this book, we reference the ICHD II when appropriate and discuss the many pain problems separately as part of a more comprehensive differential diagnostic approach to pain disorders of the head, face, and neck. Many of the chapters on specific pain disorders expand on the ICHD II as appropriate and discuss the pros and cons of its use.

Several pain organizations have established guidelines for the classification, evaluation, and management of chronic pain disorders. These educational guidelines are typically developed by scholarly panels of pain experts from numerous backgrounds and healthcare disciplines. These guidelines form the basis of the core knowledge base needed for postdoctoral programs and for appropriate board examinations and board certification. We have incorporated the guidelines and organized classifications from several national academic groups and societies to form the basis of the body of knowledge covered in this book. (These guidelines are found in the Appendix.)

The individual chapters in each section discuss the relationship of the biological, psychological, social, and personal factors that are affected by pain disorders of the head, face, and neck. There is a unified focus of the interdisciplinary approach to these complex chronic pain disorders. The senior editors have gathered the leading experts in their respective fields from varied backgrounds and disciplines to author individual chapters.

Pain disorders of the head, face, and neck are numerous, diverse, and complicated. While certain of these pain disorders occur in isolation, they are very often interrelated. Many of the headache disorders have associated face, jaw, and neck pain, and these can often be the trigger or perpetuating factor for the headaches. Conversely, primary pain disorders of the face, jaw, and neck very often have headache as a major associated finding. In addition, there are abundant data to show that treatment approaches for one isolated disorder very often alleviate another associated pain disorder or dysfunction of the head, face, and neck.

While numerous therapeutic options are available to treat the multitude of pain disorders of the head, face, and neck, typically, no one therapeutic option is maximally effective. Patients with these chronic pain disorders need to have a comprehensive, interdisciplinary diagnostic evaluation, be given a definitive diagnosis where possible, and have the most appropriate multidisciplinary treatment for the chronic pain and suffering, associated symptoms, family, social, and work-related disabilities.

When a patient presents with a complaint of head, face, and neck pain, the clinician must gather all of the pertinent information necessary to define a differential diagnosis (the problem list). Many times, it is necessary for the primary clinician to have the patient evaluated by other healthcare professionals in order to more appropriately define the primary pain disorder and its associated and comorbid conditions. This is the essence of the integrative approach to the evaluation and management of chronic pain disorders.

1.1 DIAGNOSTIC EVALUATION

The diagnostic medical evaluation includes a comprehensive review of the following:

1. Chief complaints
2. History of the present complaint
3. General medical and psychosocial history
4. Review of systems
5. Physical examination including oral and maxillofacial examination
After this information is collected and analyzed, additional components of the diagnostic evaluation may be needed, including:

1. dental and medical diagnostic imaging,
2. blood studies,
3. lumbar puncture and cerebrospinal fluid analysis,
4. electromyography and nerve conduction studies,
5. electroencephalography, and
6. diagnostic injections.

### 1.2 INTERDISCIPLINARY MANAGEMENT APPROACH

Based upon this multidisciplinary collection of data, a sequencing of the treatment requires a reasoned approach as to the following factors.

**Predisposing.** Factors that include genetic and growth and development variants that could predispose an individual to a later problem.

**Precipitating.** Factors such as trauma, acute stress, and dental or medical interventions that can “trigger” a subclinical potential pain problem into a constellation of symptoms.

**Perpetuating.** Factors that prevent the normal course of biological healing processes. These are often related to a balance of disease or dysfunctional irritants versus the body’s resistance and innate immune system levels.

It is this approach to the diagnosis and management of head, neck, and face pain that forms the basis of this text. In each of the preceding areas, a full understanding of the neuralgic, structural, and musculoskeletal features blending with the biopsychosocial issues affecting the individual will lead to a more comprehensive and reasoned management strategy.

Constant advances in medicine and dentistry have made it almost impossible for one individual to be knowledgeable in all aspects of pain management as it relates to the trigeminal craniocervical complex. Furthermore, the interaction between these fields and those of physical, behavioral, and complementary medicine requires an interdisciplinary interaction among the many practitioners. The dualist view of mind versus body as proposed by Descartes offers little in the way of understanding chronic pain, whereas an intergrated or perhaps Spinozian approach is consistent with the contributions of modern neuroscience (2,3).

It is our hope that this text will give the reader a broad understanding of the many comorbid conditions that present to the practitioner on a daily basis and in doing so help to expand the diagnostic and management options for the benefit of our patients.

### REFERENCES