Diagnosing Dental and Orofacial Pain: A Clinical Manual
Dedication

To Judy-Ann and Lisa
For patience and understanding.
Diagnosing Dental and Orofacial Pain: A Clinical Manual

Edited by

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Alex J. Moule
About the Companion Website

This book is accompanied by a companion website:

www.wiley.com/go/moule/dental_and_orofacial_pain

The website includes:

- Case studies that serve as examples for several chapters
- 22 videos that are cited throughout the book
- Clinical Pain Inventory Form
- Personal Pain Plan by the Australian Pain Management Association (APMA).
Introduction

Clinicians are called upon to diagnose orofacial pain on a daily basis. For the most part, diagnosis is a routine procedure which is accomplished without too much difficulty. Most painful conditions follow certain predictable patterns and exhibit specific signs and symptoms which, when observed, make diagnosis a relatively easy task to perform. Patients do present, however, where diagnosis is especially difficult and where pain patterns do not follow recognized norms. Many of these difficult cases can have unsatisfactory outcomes for both patients and practitioners.

There are numerous textbooks that deal with pain diagnosis. Most of these provide a comprehensive review of the signs, symptoms and pathology associated with the various conditions that can cause facial pain. Few deal with the actual process of diagnosing orofacial pain, and even fewer deal in any detail with the specific questions and tests that are required to establish a diagnosis for each condition.

This manual addresses some of the difficulties in assessing patients with orofacial pain by focusing on the questions that need to be asked and analyzing responses of patients to these questions. This is in contrast to just describing the various painful conditions. Particular attention is paid to the meaning of descriptors patients use when describing pain.

From a practical point of view, the initial task for a practitioner in assessing a patient with orofacial pain is a reasonably simple process: to establish whether the patient has a dental pain problem, a treatable non-dental pain problem, or a pain problem that requires referral to a dental or medical specialist. Once this broad sorting is carried out, more specific diagnosis and treatment planning can take place for each condition. To place the patient into one of these categories is often relatively uncomplicated. Nevertheless, mistakes often occur because practitioners jump to conclusions before assessing all of the facts, and because insufficient information is gathered before a diagnosis is made. Thus, when diagnosing pain, history is more important than testing. Indeed, it is the history that dictates the tests to perform. History is obtained by asking appropriate questions. Diagnosis is based on:

- Observing the patient (“What should I look for?”)
- Knowing the questions to ask (“What should I ask?”)
- Analyzing the answers received (“What does this answer mean?” “What else do I need to know?”)
- Performing appropriate tests
- Applying all this information to the task of identifying the problem.

When diagnosing pain, there are two broad categories of questions that the clinician must be able to use. The first category is a series of general sorting or screening questions that elicit a broad picture of the pain profile. These form the basis for asking the second category of questions, which are specific screening questions used for a particular pain state (e.g. dental pain, muscle pain, trigeminal neuralgia, cluster headache). Unless a practitioner is aware of the specific questions that relate to the different pain states, an accurate diagnosis of challenging pain cases is difficult or impossible to make.

Mistakes in diagnosis are often made when clinicians approach the diagnosis too quickly without first analyzing the patient’s responses to questions, and when attempts are made to make the facts fit a diagnosis rather than make the diagnosis fit the facts.
When confronted with any diagnostic situation it is helpful to remember a “golden rule”:

*If it doesn’t add up, it doesn’t add up.*

When confronted with any diagnostic situation that does not add up, it is helpful to remember a second “golden rule”:

*If it doesn’t add up, then review it again or refer.*

Similarly, if confronted with any diagnostic situation that does not add up and does not respond to initial treatment, it is helpful to remember a third important rule:

*Do not “walk” along teeth.*

When confronted with a patient with a complex pain problem, great care should be taken not to keep trying to find a dental cause by treating one tooth after another in an attempt to relieve pain that may or may not be dental in origin. Before treatment is initiated, an accurate diagnosis must be established (Fig. 1-1).

In the following chapters, the causes of orofacial pain will be identified and explained and the diagnostic processes that are necessary to arrive at an accurate diagnosis will be discussed. Particular attention is placed on:

- How to record a pain profile
- How to listen to and observe a patient in pain
- How to analyze responses to questions
- How to formulate questions.

Specific screening questions are described for each pain condition. Short and long case reports are presented in the accompanying e-web material.
Chapter 2

The Art of Listening – Communicating Effectively with a Patient in Pain

Andrew D. Wolvin

Introduction

Good health care is a partnership between the patient and the clinician – and with the rest of a clinical team. The center of this partnership is effective communication. Research reinforces that “communication between clinicians and patients has been recognized as an integral part of providing optimum patient care.” This clinician–patient partnership should be built on a relationship of trust. It requires that the clinician be comforting, caring and encouraging, asking and answering questions, offering clear explanations, and listening and checking understanding. Most patients who have orofacial pain seek advice first from a dentist. It is especially important with these patients to establish trust and develop good dentist–patient communication, which has been described as one that is purposeful: creating a good interpersonal relationship, exchanging information and deciding on the best course of treatment. Not surprisingly, most of the focus in studies of dentist–patient communication has centered on dentists, with little attention to the communication needs of patients themselves. A national survey, for example, which asked dentists about their communication strategies determined that good strategies that can be used include interpersonal communication, the teach-back method, patient-friendly materials and aids, the offering of assistance, and a patient-friendly practice. These communication techniques are what the dentist should say and/or do in interactions with patients.

However, since communication is a keystone of good patient care, it can be helpful to look more broadly at dentist–patient communication, not as dentist-centered, but as listening-centered. As the research stresses, communicating clinicians not only should utilize effective speaking skills, but also must engage in careful listening. Good clinical practice requires that you listen with your ears and your eyes to assess what you and the patient need to know, and what the patient already knows and wants to know. It is important to start any interaction with good listening. It is important to your diagnosis to know what the patient is experiencing and, to explore this, consider beginning your interaction with small talk that can help to establish a basic level of communication comfort. This often overlooked step is important for your patient to feel as much at ease as is possible in their interaction with you. This is challenging, of course, because if the patient has a significant orofacial pain problem, they will undoubtedly be apprehensive about what is wrong and what you will need to do to resolve the problem.

Beginning your interaction with small talk is time well spent, however, because you can learn a great deal about a patient’s issue by listening perceptively to them in the beginning. Consider not starting out with the traditional “How are you?” greeting as a patient, understandably, cannot return the standard “Fine, thanks” response – thinking rather, “I’m here for you to determine how I am!” Instead, starting out with answerable questions such as: “What is the temperature outside today?” or “How is the traffic out there?” or “You must be a Nationals fan?” can help you establish rapport and in the process reduce your patient’s anxiety.

Once you have provided a comforting opener, a question such as: “What can I do for you today?” establishes a good foundation to start your diagnosis. Listen closely then to what your patient tells you.
about his/her issue. Ask the necessary follow-up questions to get the details you need. Most of your patients are not schooled in dental health, so you will need to probe further as to what is the problem. To effectively listen to your patients, you have to ask all the relevant questions to prompt the details you require to make an accurate diagnosis. These prompts are important. You do not want to run the risk of the doorknob syndrome where the patient remembers to tell the health care provider the real issue only as the consultation is coming to an end. Furthermore, you will want to check your understanding to be sure that what you heard is what the patient intended to communicate, echoing the patient’s concerns by asking questions such as:

As I understand it, you’ve had this pain in the upper right side of your face for three days and it’s getting worse…

When considering questioning, it may be helpful to remember the journalist’s agenda: what, when, where, why and how, or more classically in pain diagnosis, the onset, duration, frequency, location, character, radiation, severity, the precipitating factors and the relieving factors all need to be addressed. How to phrase these questions and the relevance of the answers are the subjects of this manual.

At the same time, do not ignore the visual channel. Often, you can get a sense of a patient’s level of pain from their nonverbal demeanor – facial grimaces, rigid posture, clutching the chair. Also note whether the nonverbal reaction is or is not consistent with the verbal responses you are hearing. A patient might tell you that their pain level is a 2 on a 10-point linear analogue scale, but their facial tension might well register an 8, or vice versa. Also, research on nonverbal communication suggests that as much as 55% of the emotional component of a message is communicated through the face alone, because individuals are not skilled at controlling their facial expression (and eye behavior), especially when in pain. As your patient tells you about their orofacial pain problem, it is important to be there as a listener. You will want to attend to their narrative and to concentrate fully on what they have to say. In addition to your clinical observation procedures, do not be afraid to be emotionally empathetic and understanding to your patient as well. It is, of course, tempting in many situations to go straight to a diagnosis just as a patient launches into a description of an issue (after all, you will have heard this hundreds of times before). One study revealed that medical professionals tend to start directing the diagnostic discussion as early as 23 seconds into the intake interview, before a patient has had time to explain their problem. Such premature diagnosis can lead you astray. You want to be sure you have heard the full story from your patient’s perspective before coming to a conclusion, and to be aware that a diagnosis must fit the facts. It is risky to try to make the facts fit a diagnosis.

Listening to your patient’s perspective is the key to being a responsive communicator. Once you have obtained all the details you need, your communication goal is then to explain fully what their problem is, and what course of treatment will resolve the problem. This can be a challenge, because most patients tend to be highly anxious, so they may not fully comprehend what you are recommending. Adding to the communication difficulty may be the level of dental literacy your patient has and that many patients often have turned to the Internet to pre-diagnose (often misdiagnose) their problems before even making an appointment.

Consequently, a clear, comprehensible explanation of what is the problem and what is the solution to the problem is crucial. If it is necessary to use technical terms, be sure to explain/define those terms for the patient. And provide visual aids to enhance and reinforce your explanation. The visual channel is central to the way we listen. Listening research suggests that we visualize as we listen, so a good communicator takes us there visually. The use of video images, for example, of the patient’s mouth or teeth can be compelling and comprehensible for your patient.

Your nonverbal (vocal and visual) message is just as important as what you say verbally. Some research even suggests that the nonverbal is more important; as much as 93% of the impact of a message on a listener may be communicated through the vocal and visual channels. So try to position yourself so you have eye contact with your patient as you conduct your consultation. This visual connection reassures your patient that you are a caring clinician, and eye contact enables you to process how your patient is responding to your diagnosis. Likewise, be sensitive to your care-giving demeanor. Communicate in a warm, expressive vocal tone and with pleasant facial expression. It may seem self-evident to communicate that you care, yet be aware that it is tempting to look at the radiographs or at your computer screen while conducting this interview. I can think of some of my own health care providers who never look at me during a diagnosis, being focused on their computer, even to the point of having their back to me!

The clinician–patient interaction does not stop with the initial interview. The patient is often present for treatment purposes. It also is important to maintain a clear, compassionate communication approach throughout any treatment process. This can be difficult, of course, because you are concentrating on the technical dimensions of the actual treatment. But it is important to patients that they know about and understand what it is that you are going to do and, then, what it is you are doing.

Then there is the post-treatment interaction in which you need to provide the patient with an
Good communication is the cornerstone of every effective clinical practice. Establishing a Communicating Practice is a challenge. It requires:

- A commitment to and appreciation of effective communication as an essential component of professional clinical practice
- A consistent effort to listen carefully and empathetically to the patient’s verbal and nonverbal messages
- Strategic use of questions to enable an accurate diagnosis and responsive treatment
- Clear verbal explanations at every step in the diagnosis, treatment and follow-up
- Engagement of the entire staff in good communication with patients and with each other
- Application of the clinical observation skills described throughout the chapters in this manual.

Barriers to establishing a Communicating Practice can be significant. If you are dealing with a person in pain, they are probably emotionally upset. The patient brings their own communication approach and abilities, which are often a further variable. A patient who has chronic pain, also may have seen many clinicians. As well as being apprehensive, they may be angry and critical of past practitioners. Many may be confused, initially having difficulty in explaining their problem and frustrated by many diagnoses. Some may be more interested in describing who they have seen and what their past diagnoses have been. Some might appear evasive, omitting key parts of their history. Some probably are already convinced of a diagnosis and unreceptive to questioning and advice. In addition, you are dealing with your own staff who bring their own issues to the workplace. Furthermore, there are often time pressures. No matter how much you may want to empathetically listen to your patient, you also may have other patients waiting for you too. Additionally, language differences might require an interpreter. This can change the communication dynamics as you are then dealing with another individual and their interpretative nuances of what you are communicating and what the patient may be trying to communicate with you.

Clearly, effective communication in a clinical setting is not something that just happens, and it is not something that should be assumed. It takes time and commitment to create and to maintain a Communicating Practice. And it requires a significant level of communication competency in which the communicators understand what they are doing, why they are doing it, and to care about it, while at the same time functioning with a high professional degree of clinical competency. The results, however, will be satisfying to you, your staff and your patients.
Chapter 3

Causes of Pain in the Orofacial Region

Vishal R. Aggarwal, Alex J. Moule and M. Lamar Hicks

Introduction

Pain is “an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage”. It is a multidimensional experience encompassing somatic sensations and unpleasant emotions that can disrupt every aspect of a person’s life and cause suffering and psychological distress. A patient’s perception of pain and their reaction to it are influenced by these factors. All pain is real, but unfortunately from a diagnostic perspective, it is only the patient who feels the pain. Pain is invisible to the clinician.

Emotional factors aside, a patient’s physical experience of pain is governed by certain neurophysiological mechanisms. The pain experienced can be described symptomatically, but can also be explained or defined biologically. The primary emphasis in this manual is on the former, that is, how patients describe pain and how descriptors and descriptions help to establish a diagnosis.

In any discussion of orofacial pain, certain terms need to be defined:

- **Threshold** refers to the initial level at which pain is experienced and differs from individual to individual due to underlying genetic, physiologic, social and environmental factors.
- **Adaptation** is the state in which an individual no longer feels pain over time or feels limited pain to a “normally” painful stimulus. The pain response is diminished over time.
- **Localization** refers to a specific site of pain that can easily be identified within an organ or tissue.
- **Hyperalgesia** is an increased response to a painful stimulus.
- **Hypalgesia** is a reduced pain response to a stimulus that is normally more painful. This altered pain state may be the result of adaptation.
- **Alloodynia** is a painful response to a normally innocuous or non-painful stimulus.
- **Neuralgia** is an intense burning or stabbing pain, usually intermittent or paroxysmal, that follows the course or distribution of a nerve.
- **Neurogenic pain** refers to pain that arises or originates in a nerve or in nervous tissue.
- **Neuropathic refers to chronic pain resulting from injury to the peripheral or central nervous system.

Orofacial pain is generally defined as pain originating below the orbitomeatal line, above the neck and anterior to the ears. A broader definition is used in sections of this manual.

Orofacial pain may be acute or chronic. Acute pain often occurs as a result of trauma, injury or a disease such as cancer or infection. Acute pain that resolves with treatment may still progress to chronic pain. This type of pain, which accompanies neurogenic inflammation, can present confusing symptoms and can only be diagnosed with proper attention to the patient’s history. While acute pain is transient and protective, chronic pain can persist for months or years and is generally non-protective. Some chronic pain conditions appear to have no organic cause and their etiology is poorly understood.

The orofacial region has a very complex anatomy in contrast to many other regions of the body. It is also exposed to a wide variety of external influences. Thus, many pain conditions are possible. In addition, the region is innervated by several major somatic nerve trunks: the trigeminal, facial, glossopharyngeal and vagus cranial nerves, and the first, second and third cervical spinal nerves. This major regional neural complex allows referral of pain not only within the orofacial region, but also from other regions of the body. Due to this, the classification of orofacial pain conditions is difficult, especially those conditions...