

Neck Pain

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CHAPTER

16

This chapter will consider those acute and chronic soft tissue conditions that cause neck pain. Severe neck injuries are considered in Chapter 44.

The surface anatomy of the neck is shown in Figure 16.1. Structures that are likely to cause pain are the cervical disks, apophyseal joints, the ligaments and muscles of the neck, and neural structures.

Clinical perspective

Patients with neck pain may present with articular, muscular and neural system dysfunction and appropriate examination and clinical reasoning can often elucidate the primary source of the problem. Although selective local anesthesia block of each individual spinal structure may be the only way to precisely

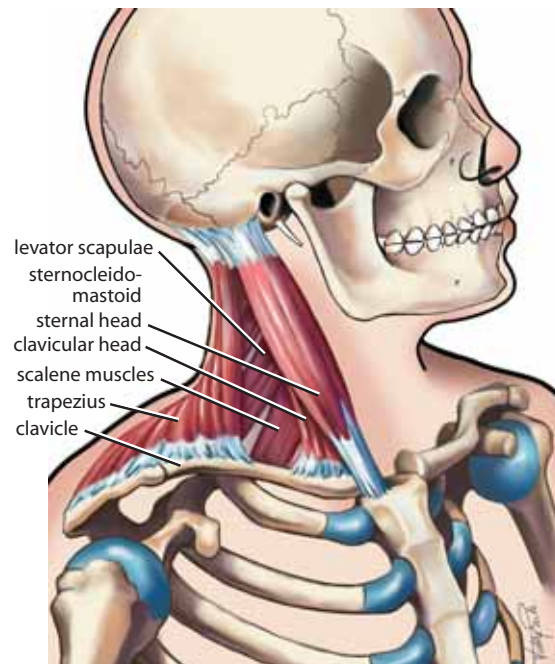
determine which structure is causing the patient's pain, manual examination accurately identifies the segmental level responsible for a patient's complaint when compared against a spinal block.^{1,2} Multimodal treatment, including specific therapeutic exercise and manual therapy, is effective in the treatment of neck pain.^{3,4}

The management of neck pain, therefore, requires a thorough history, assessment of the joints, muscles



Figure 16.1 Anatomy of the neck

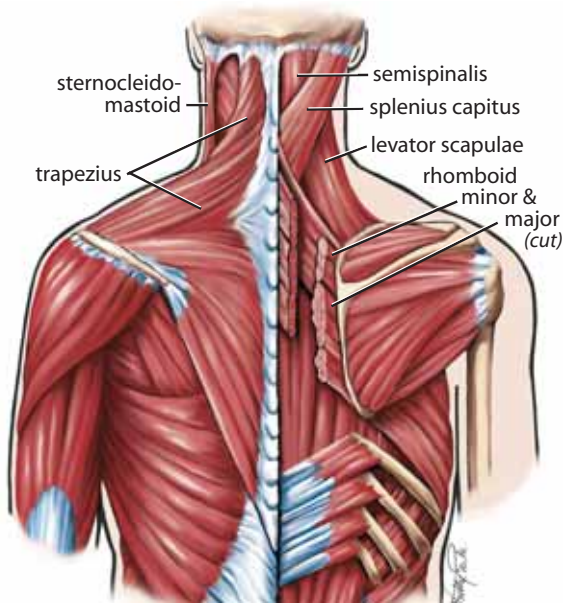
(a) Surface anatomy of the neck from in front



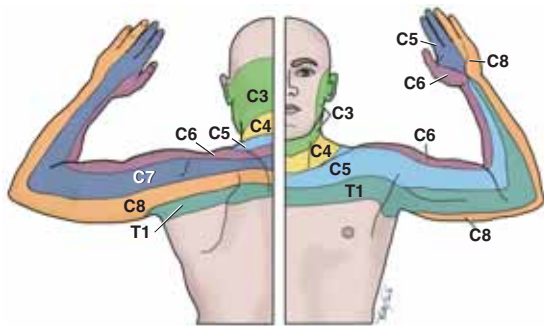
(b) Anatomy of the anterior neck



(c) Surface anatomy of the neck from behind



(d) Anatomy of the posterior neck



(e) Dermatomal distribution of the neck region

and neural structures, sound clinical reasoning and appropriate treatment to correct the abnormalities found on examination. There are, however, a number of recognizable syndromes associated with neck pain.

The acute wry neck is a well-recognized syndrome causing neck pain. Another is the acute acceleration/deceleration injury commonly known as ‘whiplash’ injury. Occasionally, patients present with an insidious onset of symptoms associated with nerve root compression, often as the result of a local or general degenerative process.

Patients with mechanical neck pain typically also have a postural component to their condition. In some patients, pain is caused by posture alone—the ‘cervical postural syndrome’. Common postural faults seen in the neck region include chin protrusion, usually as a result of prolonged forward head posture (e.g. working at a computer screen). Excessive lordosis of the upper cervical spine can develop with subsequent irritation of the posterior structures (e.g. the apophyseal joints). Abnormalities and deficits in the muscular system are common with this posture.

In the older patient, osteoarthritis may particularly affect the apophyseal joints. Cervical headaches (Chapter 14) constitute 14–18% of all chronic headaches^{5, 6} and are often accompanied by neck pain and stiffness.⁷ The other common site of referral of pain from the neck is to the shoulder and upper arm (Chapter 17).

History

The location of the symptoms must be determined: whether upper or lower cervical and/or referred to the head, whether primarily central, right-sided or left-sided, or whether there is a generalized ache. The onset of the patient’s symptoms is another important feature. It may have been sudden, either due to external trauma or an abnormal movement, or delayed following trauma (e.g. following acute acceleration/deceleration injury [whiplash]). Alternatively, the onset may have been insidious as a result of repetitive movement or prolonged abnormal posture.

The irritability of the pain is assessed by determining how easily the pain is aggravated. If the condition is irritable, the pain may be aggravated by relatively minor movements and may take several minutes to hours to ease. The degree of irritability will influence the examination (limited or full) and the intensity of treatment.

The nature of the pain may give an indication of the likely cause. Severe, lancinating pain referred in a