Neck pain & headaches

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Neck pain can be divided into acute and chronic pain.

Acute pain is pain that has been present for less than six weeks. Chronic pain is pain that has been present for over three months. Between six weeks and three months some people still call this acute pain, some chronic pain and others create a new category, sub-acute pain.
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In addition, pain arising from structures in the cervical spine can be interpreted as being headaches due to convergance of nerve messages within our sensory cortex, in other words a problem within the neck might give the sufferer a headache.
Acute Neck Pain

Acute neck pain is most commonly idiopathic (of unknown cause) or traumatic (such as the pain associated with whiplash injury). Serious causes of neck pain are rare (<1%). Degenerative changes, osteoarthrosis or spondylosis of the neck are neither causes nor risk factors for idiopathic neck pain. There is no evidence that “sprains” or “strains” of the neck muscles and ligaments occur and cause acute or chronic pain.

Approximately:
- 40% of patients recover fully from idiopathic neck pain
- 30% continue to have mild symptoms
- 30% of patients continue to have moderate or severe symptoms.
- 60% of patients fully recover within three months from the onset of acute whiplash-associated neck pain
- About 80% fully recover within one – two years
- 15 - 40% continue to have symptoms
- 5% are severely affected.

Psychological factors are not determinants of chronicity in whiplash-associated injuries.

There is evidence that some physical therapies and staying active are the best means of treating acute neck pain. There is insufficient evidence to make a judgement on the effectiveness of acupuncture, simple analgesics, cervical manipulation and electrotherapies in acute neck pain. There is evidence that soft collars do not work in the majority of cases.

X-rays may be necessary in the acute traumatic setting in order to exclude entities such as fracture; but more often than not provide little relevant information (for example, degeneration is not particularly relevant unless there are neurological symptoms). Guidelines to the use of x -rays in neck origin pain have been constructed. (Stiell JG 2001)Chronic Neck Pain

The only validated cause of chronic neck pain is pain arising from the facet joints of the neck. Excellent data supports the fact that facet joint pain can be diagnosed by a series of controlled medial branch blocks on the facet joints. It is also likely that the discs are a prime source of referred pain.

[To read about a related Case Study and view a procedure go to: Cervical Medial Branch Block]

A medial branch is a branch of a nerve that supplies the sensation to the facet joint above and below it. So each joint gets two nerves supplying it, one from above and one from below. To anaesthetise one joint, two medial branches have to be blocked (put to sleep temporarily); to anaesthetise two joints, three nerves need to be blocked. If a patient has concordant pain relief (i.e. the longer acting local anaesthetic eases pain for longer than the shorter acting local anaesthetic) following two medial branch blocks, then the patient has a 90% chance of having significant relief from a radiofrequency neurotomy to those medial branches.

[To read about a related Case Study and view a procedure go to: Cervical Radiofrequency Neurotomy]

Disc pain is a presumptive diagnosis in neck pain. There is no validated and reliable tool that can be used to diagnose cervical disc pain. Discography is performed in some centres (this involved placing a needle into the disc and pressurizing it and seeing if this reproduces the patient’s pain, and then injecting local anaesthetic to see if the typical pain is relieved). While lumbar discography is widely practiced and has some good data supporting its use (although there is still controversy), cervical discography has very limited data supporting its use.

Diagnosis of cervical disc pain is often made from changes seen on an MRI. These changes on MRI exist in the pain-free population as well, so using these changes alone to diagnose the cause of neck pain can lead to the wrong diagnosis. Never the less; some patients get pain relief from a cervical fusion operation, or from a disc replacement. Some practitioners believe that, if the facet joints have been ruled out as a source of pain, disc replacement is a better operation to fusion, as it puts less pressure on the “healthy” discs alongside the area of surgery.

X-rays and other imaging is rarely of help in diagnosing chronic neck pain, as the changes seen on imaging (and often blamed for the patients pain) are seen in the pain free population just as commonly.

Trigger points and ligament injuries have not been scientifically proven to exist as a cause of chronic pain.

Why aren’t the causes of chronic neck pain and acute neck pain the same? They may well be; it may be that muscle injuries heal, and joint injuries do not. More studies are required.

For related information on this topic visit the section on:
- Facet Joint Pain
- Cervical Disc Pain
- 10 Every Day tips to Avoid Neck Pain

References:

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2. Evidenced – Based Management of Acute Musculoskeletal Pain. Australian Faculty of Musculoskeletal Medicine.