What Your Surgeon Should Know About FMS and CMP

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Please read "What Everyone on Your Health Care Team Should Know About FMS and CMP".

There are many considerations to be taken when evaluating a patient with fibromyalgia (FMS) and/or chronic myofascial pain (CMP) for surgery. Preoperative factors associated with increased likelihood of unsatisfactory results include CMP and FMS (Straub,1999). Myofascial trigger points (TrPs) may mimic surgical conditions (Flax 1995) including atypical facial neuralgia, arthritis, subdeltoid bursitis, collateral ligament damage, thoracic outlet syndrome, appendicitis, heel spurs, trochanteric bursitis, and carpal tunnel syndrome. They can cause sciatica, contractures, back pain, and meralgia paresthetica. **Myofascial TrPs can cause nerve and vascular entrapments.** TrPs cause dysfunction before they cause pain and must be suspected whenever there is pain at the end of decreased range of motion. A list of common misdiagnoses can be found in "Travell and Simons Myofascial Pain and Dysfunction: The Trigger Point Manual, Vol I Ed 2 (Simons, Travell and Simons, 1999, p 37). Knowledge of TrPs and their individual pain patterns are necessary for differential diagnosis in many cases. It is of utmost importance that the reasons for surgical intervention are clear. **Myofascial TrPs cannot be removed surgically.** I have seen patients who had been treated by doctors who tried, with disastrous results.

FMS may develop as a result of surgical procedures (Greenfield, Fitzcharles, Esdaile1992; Disdier, Harle, Brue et al.1991; Walloons, Perkins 1994). FMS is associated with dysautonomia (Raj, Brouilard, Simpson et al 2000) and central sensitization (Staud R., Smitherman M. L. 2002). The FMS patient may have more pain that lasts longer. FMS may mean longer healing time due to low growth hormone and associated healing factors. Collagen deposition may be impaired. FMS itself may be sympathetically maintained (Martinez-Lavin, Vidal, Barbosa. 2002). Fragmented sleep is common in FMS, and care must be taken to ensure that postoperative sleep is not disrupted. FMS is also associated with allodynia. Patients may not be able to endure hospital beds and may require alternatives. Earplugs and a non-constricting sleeping mask may help the patient through the postoperative hospital stay.

FMS patients often have atypical reactions to medications. The normal medication regimen may have to be increased during recovery to prevent a flare, a period of intensified symptoms. In addition, the FMS or CMP patient may come to you under-medicated because of unwarranted fear of addiction on the part of the primary care physician. Under-medication leads to further hypersensitizing of the

CNS (Lebovits, Florence, Bathina et al. 1997). Hypermobility is often found associated with FMS, but surgery for hypermobile joints generally has a poor outcome (Grahame R. 2000).

TrP injections themselves are considered a surgical procedure and must be performed by doctors highly skilled in the technique. Each muscle must be positioned in a specific way to allow for palpation and treatment of all the TrPs, and the injection with local anesthetic must be followed by full passive range of motion stretches as part of the injection technique.

After trauma, immobility can cause the formation of microadhesions that become progressively more fibrotic with further immobilization (Cantu and Grodin, ch 4), causing CMP to worsen. Surgery is carefully orchestrated trauma. It is often best to get your patient as mobile as possible afterward, with aggressive pain control. Organs can adhere to other tissue, and bowels can become obstructed. Surgical treatment of adhesions often results in the reformation of the adhesions. Some bodywork can be effective but painful, and prevention is always best.

It's common for TrPs to form along incisions. This can be prevented by injecting procaine or lidocaine along the incision line immediately before incision (Simons, Travell and Simons, 1999 p 57). Positioning of the patient during surgery is critical to avoid the initiation of TrPs. CMP itself can develop as a postoperative complication (Hamada Moriwaki, Shiroyama et al. 2000; Hsin, Yin, Juan et al. 2002). The use of muscle relaxants under general anesthesia obliterates normal muscle tone, and lack of adequate support for the body while positioning, particularly in middle-aged and elderly patients, can result in passive overstretch of muscles (acute overload), resulting in TrP formation. Myofascial pain should be considered in any patient who develops pain in one or more muscles following surgery with general anesthesia (Prasanna 1993).

There are several common "failed surgical procedures" caused by pain from TrPs (Ingber 1989). Adequate treatment of the TrPs may relieve the pain. For example, myofascial pain contributes significantly to post total knee arthroplasty pain when orthopedic causes have been ruled out (Feinberg and Feinberg 1998). Pain from TrPs in surgical scars can be relieved by TrP injection (Defalque 1982) and specific myofascial therapy.

Carpal tunnel syndrome is a description, not a diagnosis. The cause must still be identified before it can be corrected. Scaleni, brachialis, brachioradialis, radial wrist extensors, palmaris longus, flexor carpi radialis, pronator teres, opponens pollicis and adductor pollicis TrPs symptoms mimic CTS (Simons, Travell and Simons 1999, p 688). TrPs in the subscapularis can refer pain in a wrist band pattern. One study showed that a significant subset of patients with CTS can have their symptoms relieved nonsurgically (Donaldson, Nelson, Skubick et al. 1998). Another study of over 90 cases of cumulative trauma disorders found that when fibrous adhesions and resulting faulty biomechanics were treated manually, normal

function was restored, with relief of symptoms (Leahy and Mock III 1992). Those researchers found that if a nerve is irritated at one point, it is more susceptible to compression and irritation at other points.

There has been some media attention and confusion concerning Chiari Malformation, spinal stenosis, FMS and CFIDS. Surgery to relieve symptoms consists of an incision at the base of the skull, with subsequent removal of bone to reduce pressure on the brain. On March 10, 2000, Barbara Walters interviewed some of the surgeons who perform this surgery. During the course of the interview, one of the neurosurgeons mentioned that even heavy coughing could cause narrowing of the spinal canal. (So can any procedure that hyperextends the neck. DJS)

One study asserts, "Our data suggest that patients less then 5 years of age with Chiari I Malformation benefit from surgical decompression when presenting with a chief complaint of headache" (Weinberg, Freed, Sadock et al. 1998). Did anyone assess for TrPs before surgery was performed on these children? Medical literature shows that reductions of 1.5 mm or less in the diameter of the spinal canal can come from simple *changes in posture*, such as a rotation in the pelvis (Harrison, Cailliet, Harrison et al. 1999). Levator scapulae and scalene TrPs may be involved in cervical narrowing. What if there are several areas of the spine rotated in CMP?

Breast reduction surgery, breast augmentation, and mastectomy may cause TrPs, especially in scar tissue. Breast reconstruction taking muscles from other areas can upset the balance of the body and constrict lymph and other fluid flow. This can initiate TrP formation. Patients with large, pendulous breasts may require reduction surgery to eliminate TrPs if the TrPs cannot be relieved in any other fashion. Research indicates that women who have had implant rupture with silicon migration may have an increased risk of developing FMS (Brown, Pennello, Berg 2001). Ruptured implants must be treated promptly and necrotic tissue removed.

I have heard of countless cases where vertebrae have been fused due to degeneration, only to have the discs above and/or below degenerate, requiring more spinal fusion. If the muscles are contractured due to TrPs they can pull bones out of alignment. Then there is more chance of bulging disc and/or degeneration. Dealing with the disc or the vertebrae does nothing to reduce the strain from the muscles. You must deal with the TrPs, or surgery may cause even more strain, resulting in more contracture and future problems. TrPs are more likely to occur in certain muscles in the presence of cervical disc lesions at specific levels (Hsueh, Yu, Kuan et al. 1998). Attention to the TrPs may prevent the need for surgery if the soft tissue problem is caught in time. Even those patients requiring surgery still need attention to the TrPs, before and after surgery. This requires that surgeons be trained in the diagnosis and proper treatment of TrPs. All too often they inject steroids, which may cover the problem by temporarily relieving the pain but do nothing for the cause. Myofascial TrP injection training is available (see www.painpoints.com).

For more information on FMS and CMP, see www.sover.net/~devstar

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