Volume 1 Issue 2 March 15, 2020

NAPA PAIN INSTITUTE NEWS

Brief Updates on Topics For Pain Management

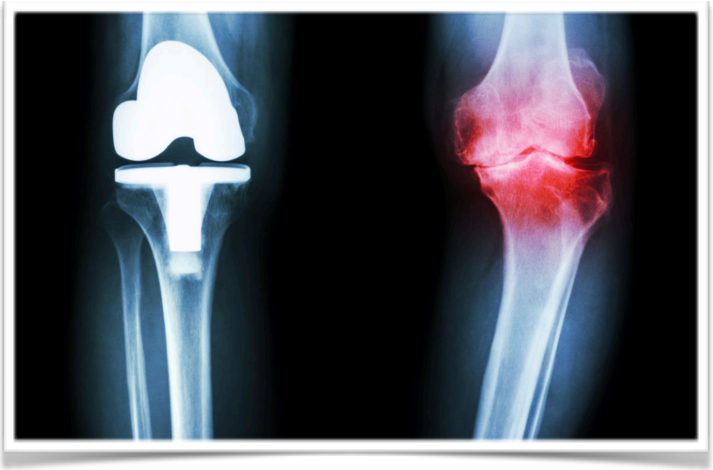
David C. Miller, MD, MA, DABPM, ABIPP, FIPP

What is an Opioid?

The simple answer is, anything that binds an opioid receptor. If we step back and look at the data and look at how the FDA describes opioids, it is readily apparent that opioids are the only FDA approved drugs specifically indicated for moderate and severe pain.

After four thousand years of use (morphine occurs naturally in poppy seed pods), we have not found a more effective agent, and I, for one, am not holding my breath that something stronger-better-safer will appear anytime soon. However, following forty years of expanding prescriptions of opioids for chronic pain, it is apparent that long-term high dose opioids are not "the answer" we had hoped it would be.

Caught in the middle of changing prescribers attitudes are tens of thousands of legitimate patients with severe pain who are now expected to discontinue medications they believe are helpful. It is relatively easy to prevent future generations from potential opioid harms (never escalate doses); but at the same time, we must not outright abandon patients accustomed to higher doses. Finding the balance between applying CDC dosing guidelines and providing compassionate evidence-based care will be a difficult transition practitioners are expected to manage.



Degenerative Osteoarthritis

Arthritis is the most prevalent chronic pain condition.The CDC stays that Degenerative Osteoarthritis (OA) is the most common form of arthritis. Some people call it degenerative joint disease or "wear and tear" arthritis. It occurs most frequently in the knees, hands, and hips.

With OA, the cartilage within a joint begins to break down and the underlying bone begins to change. These changes usually develop slowly and get worse over time. OA can cause pain, stiffness, and swelling. In some cases, it also causes reduced function and disability; some people are no longer able to do daily tasks or work. Of the major risk factors for OA (Age, Joint injury, Overuse, Obesity, Weak supporting muscles, Genetics, Female Gender), only strength and body weight are modifiable variables.

The gradual progression to end-stage pathology is, unfortunately, common and resulted in more than 600,000 knee replacement surgeries this past year in the US alone. Finding improved prevention strategies and pre-surgical treatments has important quality of life implications for millions of sufferers.

The Best NSAID?

NSAIDs, approved to treat pain and inflammation, are mainstay pharmacologic agents used to manage OA. Patients often ask for the "strongest" one. It appears that they are all relatively equal effective analgesic agents. One would expect this because their pharmacology is all the same; they inhibit cyclooxegenase (COX) enzyme. They have no other mechanism of action. By interfering in the production of thromboxane, NSAIDs ultimately diminish the inflammatory cascade and subsequent pain. There are other mechanisms in the pain process that are not amenable to COX inhibition. A full NSAID dose completely saturates the COX enzyme and excessive doses have no beneficial effect. That is called a "ceiling" effect. Although not well delineated, there exist subtle differences in absorption, metabolism, and excretion, which may account for some patients doing better on one NSAID verses another.

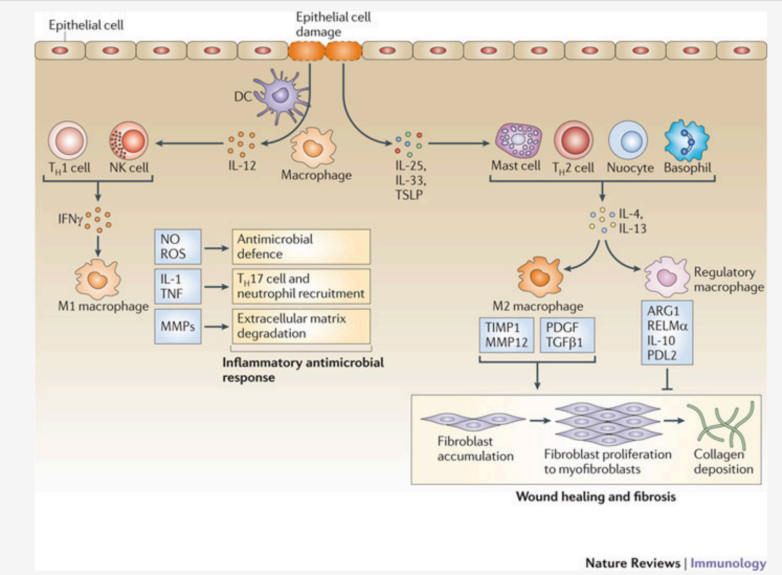
Napa Pain Institute

3434 Villa Lane Suite 150

Napa, CA 94558

707-252-9660

Napapaininstitute.com



Arthritis Inflammation

Knee joint inflammation is like a nice Napa Valley Cabernet. A little can be good, and a lot is almost always bad. The inflammatory cascade that gets triggered in a knee cartilage injury is an essential part of the healing/recovery process. The sequence of inflammation, proliferation, and remodeling describes the intended trajectory of homeostatic repair. The first step is just a little inflammation (like a splash of Cab).

There are dozens of identified chemical signals-messengers-cytokines-proteins involved in initiating and regulating the healing process. In osteoarthritis there is an imbalance of the physiologic processes resulting in "run-away inflammation", and the compounds that normally curtail the inflammatory component and steer the system toward proliferation and remodeling simply get overwhelmed. The currently recommended treatments for knee arthritis are multimodal and include: ice, strengthening, acetaminophen, weight loss, NSAIDs, bracing, topicals, intra-articular steroid injection, intra-articular hyalgan injections, arthroscopy, arthroplasty, and genicular nerve neurotomy. Disease Modifying Drugs (like the DMARDs for autoimmune rheumatoid arthritis), currently, do not exist for the more prevalent osteoarthritis.

That is about to change. Xalud's IL-10 Variant therapy promotes homeostasis via anti-Inflammation, not immunosuppression. Now engaged in an FDA Stage 2B/3 clinical trial, Transgene-encoding Plasmid DNA is injected into the knee so that certain local intra-articular cells increase production of the natural anti-inflammatory interleukin 10. Neurovations clinical research (sister company to Napa Pain Institute) is one of only three international sites approved to conduct the FDA sanctioned intra-articular trial. Enrollment into the trial for persons with moderate to severe knee arthritis pain is now open. For information call: 707-252-9606