# **UPDATE REPORT 2019**

# **HORMONES AND PAIN CARE:** WHAT EVERY CHRONIC PAIN PATIENT SHOULD KNOW

The Way Forward

By

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#### INTRODUCTION

As we start the year 2019, every chronic pain patient needs to know the status of hormones and pain care. Unfortunately, the recent hysteria over opioids has obscured the positive advances in the understanding and application of hormonal care to the relief and recovery of pain patients. In fact, research and clinical experience is starting to revolutionize the way I personally think about pain care. Hormones are showing us the natural, biologic way the body deals with pain and injury. They are clearly "the way forward".

#### WHY THE EXCITEMENT OVER HORMONES?

Hormones have recently been discovered to be made in the brain and spinal cord (central nervous system – CNS). Some hormones are made that have the specific job and function to protect ("neuroprotection") CNS tissue from injury and to regrow the injured tissue ("neuroregeneration"). These hormones are collectively called "neurohormones". Intractable, chronic pain is actually a type of poisonous, electromagnetic energy that causes injury by producing inflammation ("neuroinflammation") in the CNS and implanting the pain (e.g. "centralization") so as to make it constantly ("24/7") present. The process is similar to dropping acid on your skin which burns and causes inflammation to be followed by tissue destruction and scar formation. Fortunately, some hormones ("neurohormones") are made in the CNS to stop the pain, inflammation, tissue destruction and scarring process and rebuild the nerve cell network in the CNS. Until recently, we physicians didn't have a clue on how to enhance the natural, biologic hormonal system to help pain patients.

Excitement over neurohormones has really been enhanced by research in rats that had their spinal cords cut so that they walked around their cages dragging their hind legs. They were given some neurohormones which healed their spinal cords to the point that they could normally walk. Other animal research studies using different test models with CNS tissue have also shown the power of specific hormones to heal and regrow brain and spinal cord nerve cells. This author can't speak for others, but, in my opinion, these research studies are so compelling that hormone use in pain care has got to be fully investigated. Clearly, hormones are "the way forward".

# ARE WE MAKING HEADWAY?

Absolutely, yes! First, eight (8) specific hormones made in the CNS have been identified that produce healing effects in animals and show benefit in early clinical trials with chronic pain patients. These early trials indicate that some neurohormones can reduce pain and produce healing and curative ("neuroregeneration") effects. (See Table One.) Six (6), of these hormones are collectively known as "neurosteroids". Don't let the term "steroid" raise your eyebrows as it refers only to the chemical structure and not the complications of cortisone type drugs. Some of the "neurosteroids" are known to the lay person such as estradiol, progesterone, and testosterone. Two of the hormones produced in the CNS that control pain but are not classified as a "neurosteroid" are human chorionic gonadotropin (HCG) and oxytocin.

Due to all the controversies surrounding opioids and pain treatment, one would never know we have, in the past couple of years, made serious headway with hormones and pain care. In just a handful of years, medical science has discovered which hormones reduce chronic pain and how the hormones can be prescribed. Table Two lists most of the key advances. The overall hormone advance in pain care can, however, be generally summarized in that one or more of the neurohormones can be administered to provide some curative and regenerative benefit in essentially every chronic pain patient.

#### REPLENISHMENT OF DEFICIENT HORMONES

The production of hormones made in the CNS can be assessed by blood tests which are available in every commercial, community laboratory. The amount of hormone in your blood stream is a pooled amount of hormone made in the CNS and in the glands; adrenals, ovary, and gonads (ovary and testicles). I recommend a hormone blood test panel of these 6 hormones: cortisol, DHEA, estradiol, pregnenolone, progesterone, and testosterone. If any are low, they should be replenished. Why? Severe chronic pain may overwhelm the production of one or more of these hormones. If you take opioids and other symptomatic pain medications such as antidepressants and muscle relaxants, you may actually suppress the production of some hormones, particularly testosterone, DHEA, and pregnenolone. The reason you must replace any deficient hormone is because all 6 of them activate pain centers ("receptors") in the CNS to reduce pain and produce a healing and curative effect. These hormones act as sort of a cofactor or "booster" of symptomatic pain relievers such as opioids and muscle relaxants. I highly recommend that every chronic pain patient have a hormone blood panel test at least twice a year and replenish any hormone that is low in the blood stream.

#### THE PREGNANCY CONNECTION

A couple of years ago I was presenting a scientific poster at a medical meeting on some of my hormone research. An old friend came up and asked, "What took you so long?" I initially thought he was insulting me. He wasn't. He was lamenting, along with me, a sad fact. We should have long ago been studying the pregnancy hormones, HCG and oxytocin, for everyday pain care. Why? HCG in pregnancy is THE HORMONE that grows the CNS in the embryo and fetus'. Oxytocin is the natural pain reliever in pregnancy that allows a big "tumor" to grow in the abdomen without death-dealing pain. Also, oxytocin surges at the time of delivery to make sure that pain doesn't kill the expectant mother. With such obvious knowledge about natural pain relief in pregnancy, we should have tested these hormones for severe, chronic pain problems before now. Do they work? Yes. Long-term HCG use (over 60 days) is proving most effective in reducing pain and restoring function in some patients with adhesive arachnoiditis and other severe pain problems. Oxytocin is an effective short-term pain reliever that can be taken for pain flares. It can even be taken with symptomatic pain relievers like aspirin, acetaminophen, or a stimulant to help a patient avoid opioids.

#### "ON THE MEND" - GOODBYE SYMPTOMATIC TREATMENTS

Until the hormones came our way, you never heard much about "symptomatic" versus "curative" care. Why? Up until the discovery that hormones are made inside the CNS and produce curative effects, about all we could do was prescribe symptomatic pain relievers such as opioids, muscle relaxants, and anti-seizure ("neuropathic") agents. There was no need or hope that we can permanently reduce severe chronic pain, much less hold out a hope for cure or near cure. Chronic pain patients are beginning to use DHEA, pregnenolone, testosterone, estradiol, progesterone, and HCG on a long-term basis. Dosages are beginning to be determined. For example, DHEA requires a dosage of 200 mg or more each day. Pregnenolone requires 100 mg or more. Patients report reduced levels of pain, fatigue, and depression. Although few controlled studies have yet been done, the open-label clinical trials are impressive and clearly call for chronic pain patients to get started with the neurohormones that are being found to be beneficial by chronic pain patients. Neurohormones have changed our thinking and old-hat beliefs. Every severe chronic pain patient needs to know they can probably do a lot of mending with hormonal care. Be, however, clearly advised. Hormones can mend a lot of damaged nerve tissue, but they can't fix scar tissue once it sets in. Unfortunately, millions of severe, chronic pain patients have had no option in the past couple of decades except to take symptomatic medication and use such devices as electrical stimulators. Even long-standing severe chronic pain patients who are on opioids, however, can almost always benefit from one or more hormones. Most important, I am finding that hormone administration is the best way in most chronic pain patients to reduce opioid dosages but still get good pain relief.

# MY FAVORITE "NEWBIES"

There are 3 new discoveries or innovations in hormonal pain care that I dearly love. I believe they are real "trend-setters", but keep in mind that the "next big thing" may not endure. Nevertheless, I'm so excited about these three newcomers to the hormone and pain care movement, that I wish to share them.

#### 1. HORMONE DERIVATIVE TREATMENT:

Some really smart scientists know how to make derivatives or "analogues" out of the "real McCoy". Why do this? The derivative can boost the potency of the basic hormone several fold. There are two hormonal derivatives that, in my hands, have been extremely beneficial to sub-groups of chronic pain patients. The first is medroxyprogesterone which is a derivative of progesterone. In my experience medroxyprogesterone is far more potent in treating intractable pain patients than is plain progesterone. I have administered this derivative to intractable pain patients and most found that it reduced their pain and their need for opioids. The causes of intractable pain in these patients were multiple and included Lyme disease, posttraumatic headache, post-stroke, and arachnoiditis. We have often made a topical medroxyprogesterone (skin massage) cream for use over arthritic joints and over the lumbar spine of adhesive arachnoiditis patients. The second hormone is nandrolone which is a derivative of testosterone. When a derivative is made from testosterone it is often called an "anabolic steroid" because it grows tissue. Anabolism means tissue growth and catabolism means tissue degeneration. The term "anabolic steroid" has a generally pejorative or negative view since they have been used to grow the muscles and nerves in athletes that wish to gain athletic advantage. Don't be too offended by the term. After all, the pain patient needs to grow some nerves and muscle to relieve

pain. The United States Food and Drug Administration (FDA) has approved nandrolone for use in "wasting" or "catabolic" conditions. Many severe pain patients qualify. A big problem today in pain practice is the Ehlers-Danlos/Hypermobile Syndrome (EDS) patient whose nerves, muscles, and connective tissue genetically and progressively degenerate. Nandrolone is proving to be a "God-send" to some of these suffering individuals. One really good thing about the derivatives, medroxyprogesterone and nandrolone, is that patients can safely try these hormonal agents for only a month to see if they get a positive response.

# 2. MEDROL® TEST

Medrol® is the commercial and best-known name for the cortisone derivative, methylprednisolone. Its an old drug but ranks as a top-notch newbie, because it is the cortisone derivative that best crosses the blood brain barrier and suppresses neuroinflammation. To date, we don't yet have a reliable blood test to determine if there is neuroinflammation in the brain or spinal cord, but it is essential to know if active neuroinflammation is in the CNS. "Step one" on the "mending road" is to suppress and hopefully eliminate neuroinflammation. A Medrol® test is, in my experience, your best bet to know if you have active neuroinflammation. There are 2 ways to take the Medrol<sup>®</sup> test. One is to take an injection of Medrol<sup>®</sup> for 2 consecutive days. The other is to obtain what is called a 6-day, Dose Pack. You take a declining dose of Medrol® over a 6-day period. All MD's, NP's, and PA's are familiar with the Medrol® dose Pack. So ask for it.

Here's the pay off. If you feel better with less pain and better physical function, appetite, and sleep, you have just determined that you have active neuroinflammation that is not only causing pain today but will worsen your condition in future days. If you have active neuroinflammation you will need to start medicinal agents that are known to suppress neuroinflammation. If your Medrol® test is negative meaning it didn't reduce your pain or improve other symptoms, it means you don't have much neuroinflammation and that your pain is due to nerve damage and scarring. In this case you will have to rely on symptomatic pain relievers and perhaps try some long-term neuroregenerative-anabolic hormones to hopefully regrow or revitalize some nerve tissue.

#### 3. HORMONAL EXTRACTS

Years ago, including the days of the medicine man and shaman, extracts (portions of whole glands), particularly the adrenals, gonads, pancreas, and thyroid, were given to the sick. At one time in the early part of the last century, this practice was known as "glandular medicine" and whole gland extracts were administered by practicing physicians. Until lately, however, the only survivor was whole thyroid. Many a person today still finds that an extract of thyroid (made by the Armour Company) is superior to a single component of the thyroid gland or a synthetic thyroid. This principal holds with adrenal and gonadal extracts. Some commercial companies have brought back whole adrenal and gonadal extracts. These extracts are non-prescription and are starting to be used by chronic pain patients. To date, they appear to be essentially void of complications or side-effects and some chronic pain patients are reporting positive results for pain reduction and improvement in energy, appetite, and sleep. They are a safe, inexpensive way for patients and physicians who don't like "steroids" or cortisone.

#### THERAPEUTIC TRIALS – NO ONE SIZE FITS ALL

One of my major purposes in writing this report is to encourage all chronic pain patients to embark upon a search for one or more hormonal treatments that will reduce their pain, need for opioids, and yield a better life. Advice. Don't wait for your medical practitioner to offer hormone testing or treatment. To many overworked medical practitioners, such a request may be considered a real nuisance or even "a threat". Be prepared. Check with other patients in your social media group. Know what you need. Make it easy on your medic. Please share with your social media group this report and any materials you have about hormones and pain care. Most MD's, NP's, and PA's will appreciate your preparation and desire to try something new on a short-term, trial basis.

Every chronic pain patient needs to know that all the hormonal agents described here can be safely tried for one month. This is known as a "therapeutic trial". Specifically ask your medical practitioner for a one-month, "therapeutic trial". In this manner you can find out if the hormone is right for you and whether you should continue with it past one month.

#### **SUMMARY**

Hormonal treatments for chronic pain patients are getting up a "head of steam", because they are fundamentally essential if a chronic pain patient wants some curative effects. Although hormones are a great advance with more progress to come, they will never be a total replacement for symptomatic care with opioids, neuropathic agents, and medical devices. Many long-term intractable pain patients have damaged, scarred nervous systems that neither hormones nor other known treatment can cure. The major lesson is that hormone treatments should be initiated as early as possible if a person develops chronic pain.

I recommend hormone blood testing at least twice a year with a six-hormone panel. You should replenish any hormone that is low in the blood stream. Oxytocin has, as one of its natural functions, pain relief. It is an excellent short-term pain reliever that can be taken with other symptomatic pain relievers to avoid an opioid. There are specific hormones made in the CNS that protect nerve cells by suppressing neuroinflammation and then regenerating them. These hormones and their derivatives are beginning to be used by chronic pain patients. All chronic pain patients can and should ask their medical practitioners for a short-term therapeutic trial to find one that fits them. While "one size doesn't fit all, all can find one size that does fit". It's the way forward.

#### MATERIALS ON REQUEST TO SUPPLEMENT THIS REPORT

- 1. Bibliographies on "Neurosteroids" and "Spinal Cord Healing".
- 2. Medical protocols with specific hormone dosages and recommendations.

#### TABLE ONE

#### HORMONES MADE IN THE CENTRAL NERVOUS SYSTEM:

Allopregnanolone Oxytocin Estradiol Pregnenolone Dehydroepiandrosterone (DHEA) Progesterone Human Chorionic Gonadotropin Testosterone (HCG)

All eight off these hormones have specific functions directly related to pain care.

# TABLE TWO

# SOME ADVANCES IN HORMONAL PAIN CARE

- Replenishment of hormones that demonstrate a low blood level
- Use of oxytocin as a non-opioid pain reliever
- Use of neurohormones (or derivatives) for neuroregenerative and curative effects
- Use of methylprednisolone (Medrol®) to test for the presence of neuroinflammation

### ADDENDUM TO 2019 REPORT ON HORMONES AND PAIN CARE

# SOME RECENT COMMENTS FROM PARACTITIONERS AND PATIENTS

# A. NURSE PRACTITIONER IN WASHINGTON

So far at my clinic site, we have around 60 to 70 people on oxytocin. Early results look good so far. Many are also on DHEA and pregnenolone as well. The treatment regimen seems to be working.

# B. A CHRONIC PAIN PATIENT IN MONTANA

I'm off all opioids. I'm only taking low dose naltrexone and bovine adrenal extract.

#### C. AN ARACHNOIDITIS PATIENT WITH PSORIATIC ARTHRITIS IN CALIFORNIA

I can't believe it. My twitching and pains in my legs are almost gone. I'm back to exercising. I'm on low dose naltrexone, DHEA, 200 mg a day, bovine adrenal extract, and methylprednisolone 2 to 3 days a week.

#### D. NURSE PRACTITIONER IN ARIZONA

Nandrolone is getting truly amazing results in EDS and arachnoiditis patients.