NEUROSTEROIDS ENTER PAIN TREATMENT

In the year 2000 some neuroscience researchers discovered a group of hormones being made in the brain and spinal cord. Some were also made in the gonads. Initially the scientists didn't know why the CNS produces these hormones, but they soon learned they are in the CNS to protect, energize, and heal CNS tissues such as nerves and glial cells that may be injured or damaged. They also found that these hormones control pain. They were named neurosteroids because their chemical structure resembled that of the corticosteroids

Function of Neurosteroids: A main function is to heal nerve tissue that is injured and relieve pain. This includes the glial cell that causes neuroinflammation, central sensitivity, and constant pain. Neurosteroids are potent anti-neuroinflammatory hormones. The main neurosteroids are:

Pregnenolone
Allopregnanolone
Estradiol
Testosterone
Progesterone
Nandrolone
Dehydroepiandrosterone (DHEA)

You will note that some neurosteroids such as estrogen are known as hormones and have biologic effects outside the spine.

Science has Become Practical: There is a large amount of scientific research on neurosteroids. It clearly shows, in laboratory conditions, how they heal nerve tissues and reduce pain. To date, however, the practical use in treating chronic and intractable pain has not emerged. Practical use requires dosage, formulations, and disease targets. Dr. Susan Sklar, of Long Beach, California, is the first to develop a neurosteroid protocol for a severe pain problem, burning mouth syndrome. We have, after much trial and error, identified a neurosteroid protocol for adhesive arachnoiditis.

Use with Other Treatment: The neurosteroids can be used with opioids, neuropathic agents, peptides, and anti-inflammatory agents.

Blood Tests: The level of pregnenolone, DHEA, estradiol, and testosterone is easily measured by blood tests. All AA patients should be tested.

Summary: Neurosteroids are an advance in pain relief and treatment of adhesive arachnoiditis. The use of corticosteroids can now be minimized.

Reference: Compagnone MA, Mello J, et al. Neurosteroids: biosynthesis and function of these novel neuromodulators. *Neuroendocrin* 2000;21:49-56.