DESCENDING PAIN: NEW DISCOVERY TO CONTROL SEVERE, CHRONIC PAIN

The control of severe, chronic pain in medical practice today is almost exclusively based on "ascending pain" and "neuropathic pain." Ascending pain is the pain signal that goes from the pain site (i.e., joint, arachnoid, muscle) to the brain. Neuropathic pain is the pain that results when there is damage or blockage of electrical transmission in a nerve or nerve root. In recent years accumulated research has discovered that when chronic pain centralizes, it creates a third type of pain called "descending." This is a critical issue for persons with adhesive arachnoiditis and other diseases that cause severe, chronic pain, because descending pain requires different medications than those used for ascending and neuropathic pain.

WHAT IS DESCENDING PAIN? A person with constnat pain will produce excess bioelectricity (i.e., central sensitization or centralized pain) in the brain. This bioelectricity travels down the spinal cord and vegas nerve to not only produce pain but also over-stimulate the cardiovascular system. Descending pain is controlled by the noradrenergic receptor. The neurotransmitter to this receptor is called noradrenalin or norepinephrine.

THE THREE TYPES OF PAIN		
Ascending	Neuropathic	Descending
Receptor: opioid	Receptor: gamma aminobutyric acid (GABA)	Receptor: noradrenalin
Pathologic Effect	Pathologic Effect	Pathologic Effect
Excess bioelectricity is transmitted into the brain	Bioelectricity blocked by nerve damage/dysfunction	Excess bioelectricity transmitted out of the brain
Examples of Treatment	Examples of Treatment	Examples of Treatment
Opioids	Gabapentin, diazepam	Clonidine, methylphenidate

Key Point: A person with constant severe pain will have to treat all three types of pain.

HOW DOES ONE KNOW IF DESCENDING PAIN IS PRESENT? Descending pain will be present in persons who have constant, unremitting pain. Here are the symptoms:

Pulse rate elevates - Periodic hot flashes - Cold hands/feet - Excess sweating
Allodynia (Pain upon light touch)

MISGUIDED OVER-RELIANCE ON OPIOIDS AND NEUROPATHIC AGENTS: The unawareness of descending pain is one reason why dosages of opioids and neuropathic agents may be over-prescribed. For example, physicians may simply raise the opioid or gabapentin dosage over toxic levels if they are not aware of descending pain. What's more, the increase in dosage may be ineffective. This applies to opioids in implanted pumps. Opioids and neuropathic agents have little effect on descending pain. It must be treated separately.

SUMMARY: Descending pain is a new discovery that must be recognized and controlled to achieve relief from severe, chronic pain. A reliance on opioid and neuropathic agents will almost always be inadequate.

References
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